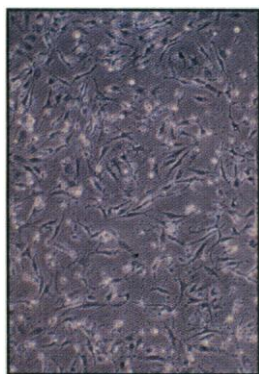
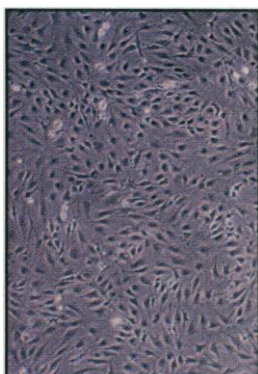


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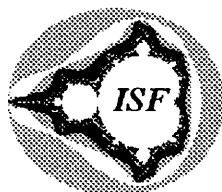
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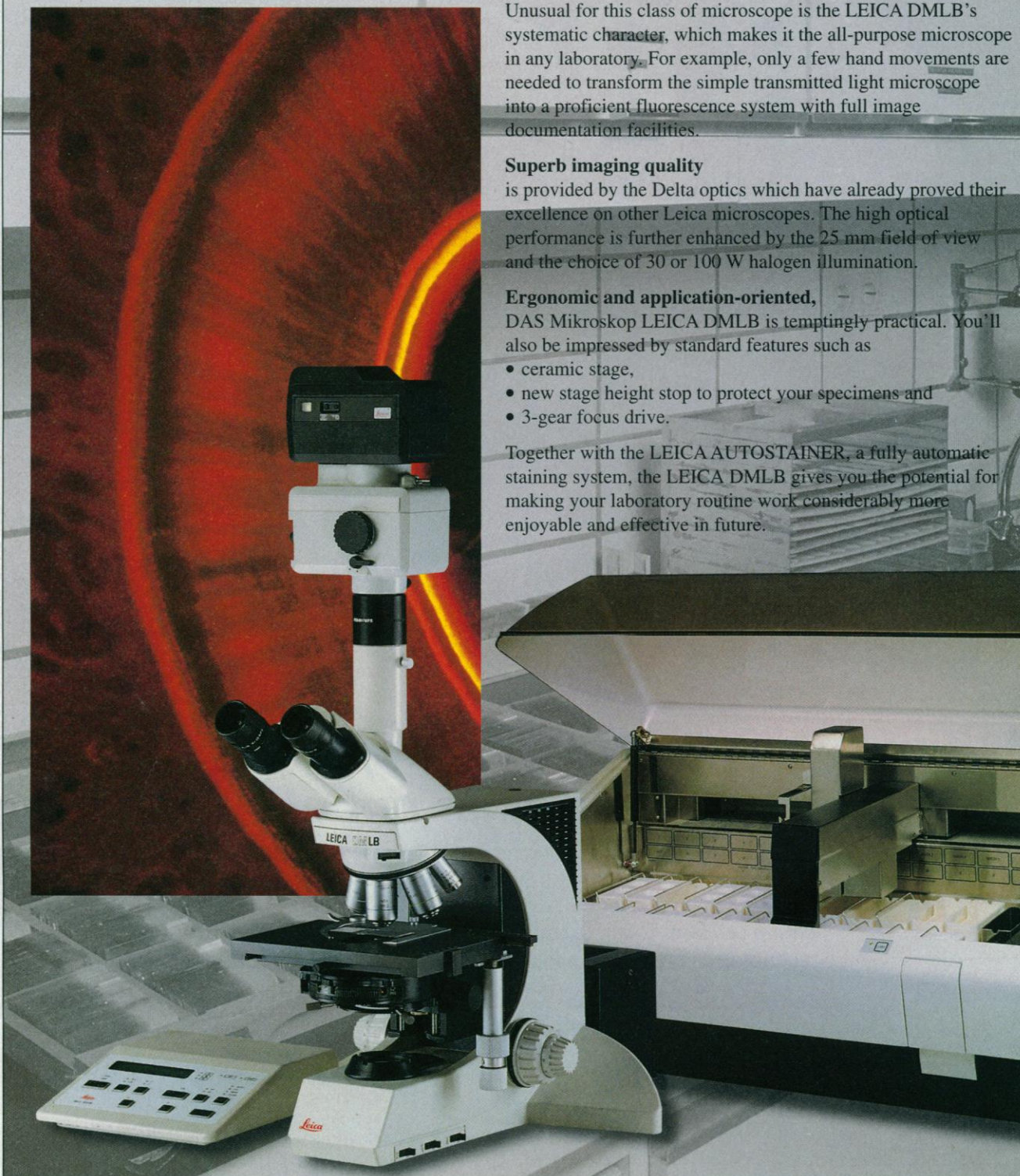
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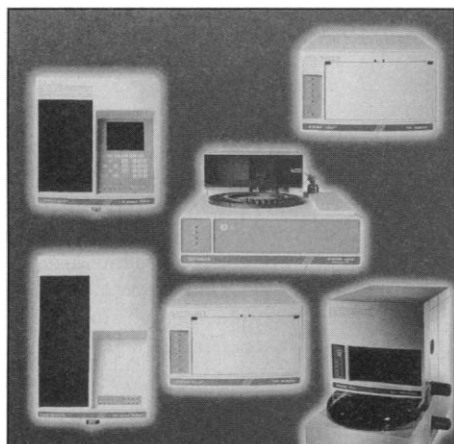
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gramming. It also provides a strip-chart recorder-like display that can be opened within Excel to view acquired data in real time. **IOtech. Circle 134.**

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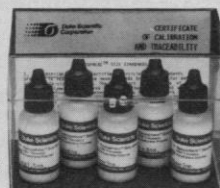
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ated Marker 15 reacts with CA 15 3, an antigenic determinant expressed by human breast epithelium. Monoclonal Mouse Anti-Human Ovarian Tumor Associated Marker 12 reacts with CA 125, an antigenic determinant on the surface of ovarian carcinoma cells. **Biomeda. Circle 138.**

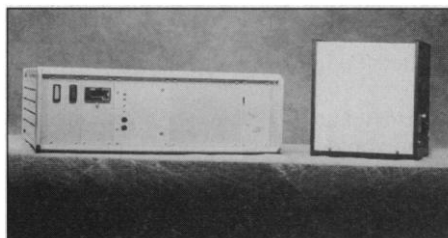
Monoclonal antibodies against heat shock proteins (HSPs) 27, 60, and 70 are suitable for immunocytochemical staining of tissue sections, immunoblotting, and immunoprecipitation studies. **Diagnostic BioSystems. Circle 139.**

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Literature

J.T. Baker 1995-96 *Biotechnology Catalog* features more than 75 new products, including salts, electrophoresis gels, bioreagents, high purity solvents, solid phase extraction products, and biochromatography media and columns. **J.T. Baker. Circle 144.**

The Polaroid DS-34 Camera System and Instant Film is a product guide on a system designed to simplify the documentation of electrophoresis results. The system can be used with almost any light-emitting source and includes virtually everything needed to quickly and accurately photograph Coomassie blue and ethidium bromide-stained gels. **Sigma-Aldrich Techware. Circle 145.**

Electrophoresis and Separations Technology Products is a catalog that begins with an overview of techniques used in gel electrophoresis. **Labconco. Circle 146.**

Neurosignals: Antibodies for Neurotransmission Research introduces 20 new products. **Upstate Biotechnology Inc. Circle 147.**

QIAexpress Detection Systems for Detection of 6xHis-tagged Proteins is a technical information sheet. **Qiagen. Circle 148.**

Microparticle Reagent Optimization manual presents strategy, protocols, tips, and techniques for adsorption and covalent coupling. **Seradyn. Circle 149.**

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NATIONAL INSTITUTES OF HEALTH
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5-7 FEBRUARY 1996

On 5, 6 and 7 February 1996, the World Health Organization, the European Commission, the US Food and Drug Administration, and the National Institute of Allergy and Infectious Diseases, will co-sponsor a meeting on nucleic acid vaccines for the prevention of infectious diseases in humans.

This meeting will review scientific advances of relevance to the development and evaluation of nucleic acid vaccines, and key aspects of their immunology and vaccinology, including work on primates.

Scientists interested in this area of research are encouraged to participate by providing an abstract of the proposed presentation and an outline of ongoing research. Posters will be accepted.

Priority will be given to selected topics for nucleic acid vaccines, including 1) mechanism of action, 2) modulation of the immune response, 3) mucosal immunization 4) route of delivery and delivery mechanisms, 5) preclinical and safety evaluation of vaccine candidates, 6) primate studies and other animal models, and 7) vaccines for diseases prevalent in developing countries.

A few selected groups will be invited to present and discuss their data. The deadline for the submission of material is 30 November 1995.

Applications and abstracts/outlines should be submitted to Dr M.-T. Aguado, Vaccine Research and Development Unit, Global Programme for Vaccines and Immunization, World Health Organization, Avenue Appia, 1211 Geneva 27, Switzerland (Facsimile number: 41-22 791 4860)

Those interested in attending the International Meeting on Nucleic Acid Vaccines should make a request to the logistics coordinator, TASCON (USA) (Facsimile number: 1-301-907-9655)

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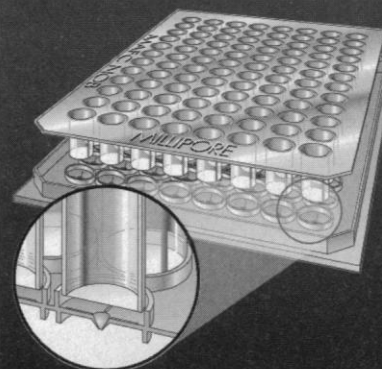
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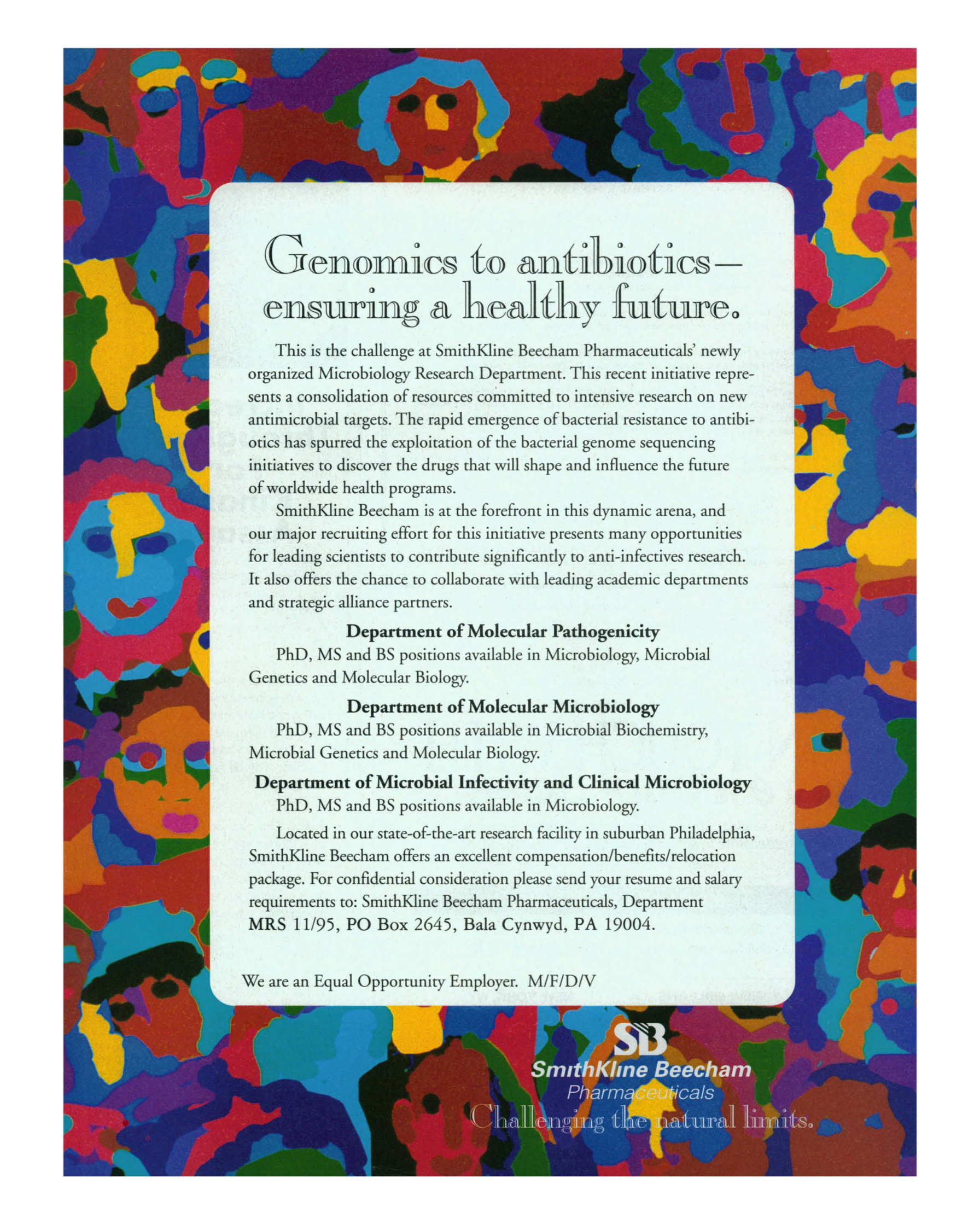
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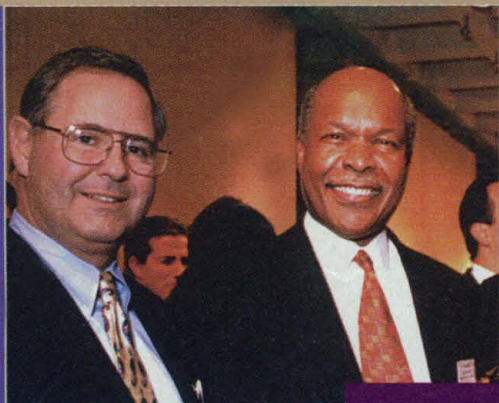
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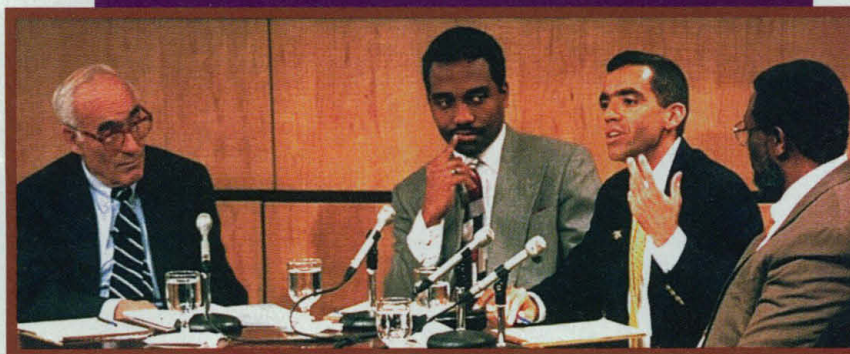


Diversity and the Scientific Community

by John Timpane

This article will speak about majorities: the growing variety of people who do science. In the United States, a very diverse nation, the science workforce has only recently begun to assume the diversity of worldwide science. Not for lack of trying. A huge array of scholarships, grants, internships, seminars, and summer educational programs is now in place to attract would-be scientists of all backgrounds. Some, like the Inroads program, attract interest from high school students and track their progress through college. Others connect students with mentors and role models.

Corporations team up with government and community groups to create new opportunities. Recently, the United Negro College Fund announced that Merck Co. had donated \$20 million to set up a ten-year Science Initiative Program to provide fellowships, internships at Merck, and other support to 37 black biomedical undergraduates, graduates, and postdoctoral students each year. The \$20 million was the largest gift ever for the



Fund, underscoring the commitment of Merck—and industry in general—to increase the diversity of the science workforce.

A world of grants and fellowships won't help, however, if there is no one to receive them. Study after study reports that African American and Hispanic American scientists represent far less of the science employment force than their proportion of the general population. Among some groups, such as Native Americans, the relative proportion is even lower. To be sure, there are some success stories, notably among women, who are steadily increasing their representation among U.S. scientists. But even here, as Carmen Parseghian of Amgen relates (see below), resistance

when it comes to disabled people (see *Science*, June 23, 1995, pages 1787-1796).

Almost everyone agrees that the main target of any large effort for recruitment and reform should be the precollege educational system. A recent National Science Foundation study (see *Science*, August 25, 1995, page 1047) showed that although a larger fraction of blacks indicated interest in science on entering college than did whites, only 34% of the blacks ended up as science majors, compared with 60% of the whites. Preparation (rather than ethnicity *per se*) strongly predicted who went

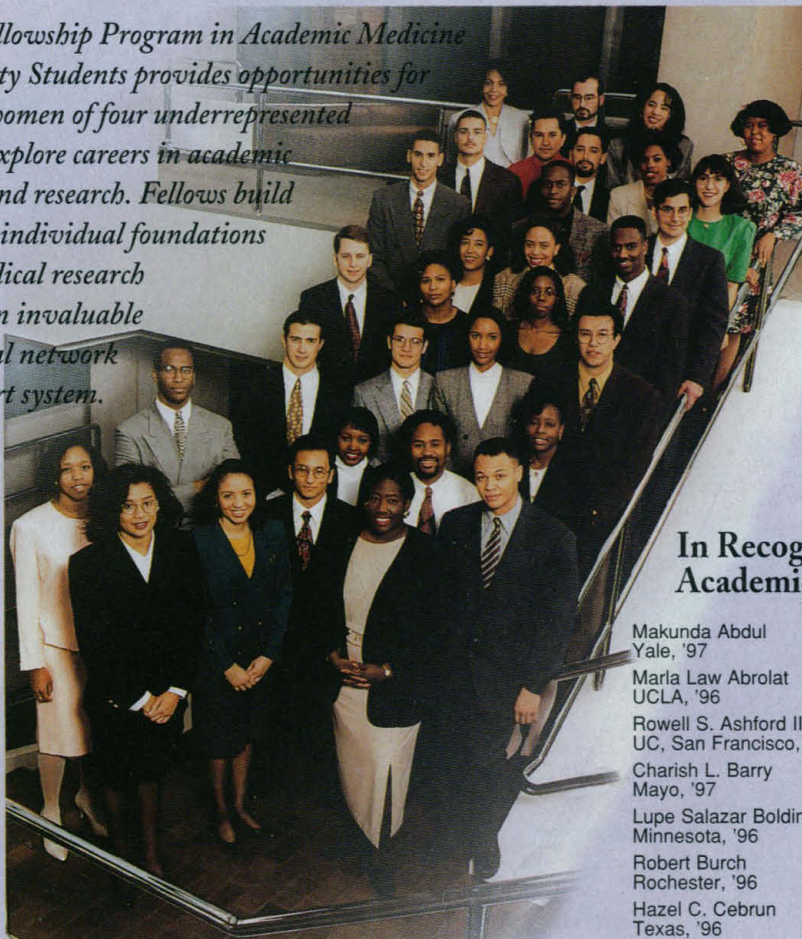
Images of diversity in science (clockwise from top left): Kenneth Weg (left), executive vice president, Bristol-Myers Squibb (BMS), and Louis Sullivan, president of Morehouse School of Medicine; Carmen Parseghian of Amgen; a careers roundtable at BMS (left to right): Morton Bogdonoff, Griffin Rodgers, Warren Lockette, and Frank Douglas

Inside: A Listing of Scholarships and Fellowships for Minorities and Women in the Sciences.

The Fellowship Program in Academic Medicine for Minority Students

Sponsored by **Bristol-Myers Squibb Company**
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The Fellowship Program in Academic Medicine for Minority Students provides opportunities for men and women of four underrepresented groups to explore careers in academic medicine and research. Fellows build upon their individual foundations in bio-medical research and join an invaluable professional network and support system.



In Recognition of the 1995 Academic Medicine Fellows

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If you are approaching your second or third year of medical school and are of African-American, mainland Puerto Rican, Mexican-American or Native American descent, information can be obtained from: National Medical Fellowships Inc., 110 West 32nd St., 8th Floor, New York, NY 10001-3205. (212) 714-0933



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on to be scientists. As many studies show, minority students are less likely than other students to receive adequate preparation—or to be encouraged to go into science as a career.

Below, scientists and employers in both industry and the academy discuss diversity in the science workforce. That diversity, always great, is growing, and diversity is strength.

Efforts in Industry

Careers Catching Fire: The Fellowship Program in Academic Medicine for Minority Students

The Fellowship Program in Academic Medicine for Minority Students, now in its twelfth year, is a success story that has bred many other successes. Created in response to the underrepresentation of minorities on medical school faculties, the Program is sponsored by Bristol-Myers Squibb (BMS), established by the Commonwealth Fund, and administered by National Medical Fellowships, Inc., an organization dedicated to increasing the number of minority physicians.

Each year, up to 35 students are selected from recommendations by the deans of 141 degree-granting medical schools. Fellows are awarded grants of \$6,000 each, which enables them to spend eight to twelve weeks on a research project, mentored by an experienced biomedical researcher. This mentor-Fellow relationship is one of the most distinctive aspects of the Program. Not only has it ensured research of high quality, but also it has forged enduring professional relationships. "We realize that in many cases, the lack of a suitable mentor is the difference between a scientific career catching fire or not," says J. Lynne Cannon, vice president of human resources for the Pharmaceutical Research Institute at BMS. Fellows give a presentation of their research at a symposium, where they field questions and comments from distinguished scientists and other Fellows.

The Program is open to second- and third-year medical students who are African American, mainland Puerto Rican, Mexican-American, or Native American and have demonstrated high academic achievement, leadership, and the potential for playing a responsi-

ble role in academic medicine. Thirty-five Fellows have been selected for 1996. Since the inception of the Program, over 300 gifted medical students have participated.

Evaluations by the Association of American Medical Colleges show that as of 1992, 93 percent of responding Fellows had participated as investigators in research projects during medical school, 63 percent had authored papers resulting from sponsored research projects, and 82 percent said they intended to continue in academic medicine. Those figures indicate that the goal of increasing minority participation in medical science is being met.

Several Fellows have gone on to distinguished careers. Cato Thomas Laurencin, a 1984 Fellow, is now associate professor and director of research in orthopaedic surgery at the Medical College of Pennsylvania and Hahnemann University. Laurencin, originally from an inner city row home neighborhood in North Philadelphia, became the first former Fellow to serve as a research mentor for the Fellowship Program. Eric Munoz, a 1987 Fellow, is chief resident in surgery at the University of Texas Health Science Center. An experienced heart transplant surgeon, Munoz has conducted research on the effects of uremia on heart function and metabolism. He is the youngest of four children of a family of Mexican-Russian ancestry and is the first in his extended family to pursue a career in medicine.

The high point of the 1995 Program was the nationally televised live broadcast of a roundtable discussion on scientific research and career development. The discussion, held before the assembled Fellows, originated at the BMS facility in Princeton, New Jersey, and was broadcast to high schools and colleges nationwide. Featured speakers included Griffin Rodgers, chief of the molecular hematology unit at the National Institutes of Diabetes and Digestive and Kidney Disease; Frank Douglass, executive vice president for research and development at Marion Merrell Dow; and Warren Lockette, associate professor of internal medicine and endocrinology at Wayne State University. The keynote speaker at the conference was Louis Sullivan, president of

Peter Lasky manager human resources Genetics Institute

Why do we want diversity? The main reason is that successful science is based on looking at things in a different way. Biotechnology is a collaborative business. If everybody thinks alike—if everyone is a clone of everyone else—you will get the same way of thinking every time. We have to believe that if we get people from different backgrounds, they will look at things from different angles. That divergent thinking is going to help us discover better drugs and produce better products. And when you put these people together in teams, you increase the chances that divergent, trend-breaking ideas and techniques will emerge.

Another thing: the world is changing. Yes, white males still dominate the sciences, but their numbers relative to those of the entire workforce are decreasing. Go into any company and you will see people from all sorts of backgrounds doing science. But the changes we're seeing in the population today will result in changes in our future workforce. If, as an employer, you're not able to attract a diverse range of people to do science with you—if you're not an employer of choice when it comes to minorities—you'll miss out on the scientists of the future.

So the question becomes, What can we do to attract as diverse a range of people as we can? With some groups, such as women, the progress seems good. With other groups, such as African Americans and Hispanic Americans, the numbers have been disappointing. And when you look at the broad scale, the task seems overwhelming. We have to get at the kids as early as we can, meaning in elementary school. Teachers need to keep up with the latest science, especially in biotechnology, where the field turns over almost yearly. And we have to change the way some people just get discouraged early on from going into the sciences.

Everyone talks about the lack of role models. Alfred Gaskin, our associate director of laboratory resources, is an African American. His high school guidance counselor once suggested a career as a garbage truck worker! When Alfred walks into a classroom to make a presentation at a local school, the kids can't believe it. They go crazy over him—and at the same time, they're not sure how to react, because they haven't seen too many people like themselves in the sciences. People like Al are in such great demand that, if they wanted to, they could do nothing but visit the schools all day, all week long. That's how much interest there is—and how few role models.

Corporations have to continue to take responsibility. There are thousands of big and small ways we do that. Genetics Institute has scholarships, internships, outreach programs to the schools, enrichment programs, and job fairs. Our before-school science enrichment program with local schools is so popular we have to hold a lottery to determine who gets to participate. We also work with projects such as the Inroads Program, which show that there is a significant interest in science among minority students. Once you turn kids on and follow through with it, you'll find that the interest is there.

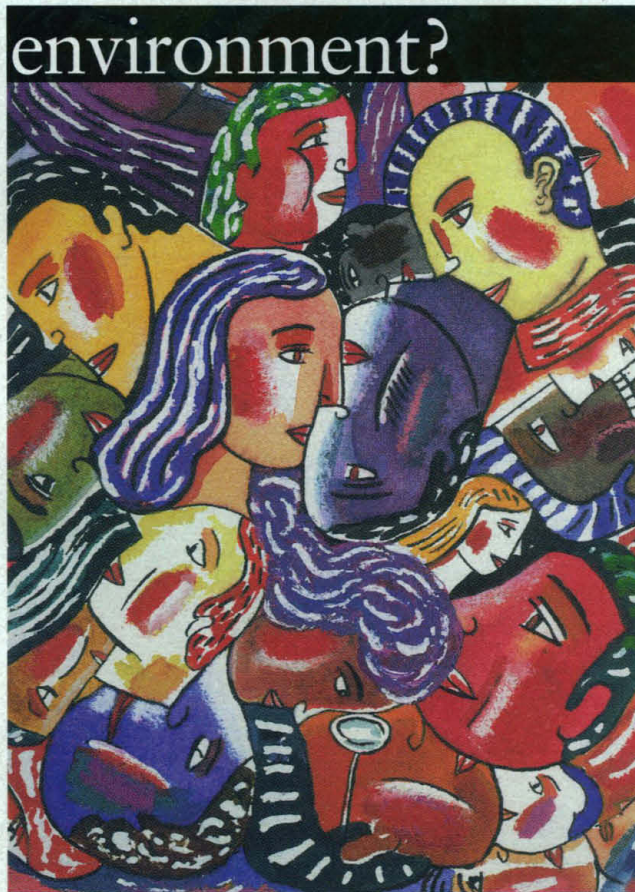
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Morehouse School of Medicine and former secretary of the U.S. Department of Health and Human Services.

"It was tremendously exciting to have all these people there," says Don N. Harris, coordinator of the Program for BMS. "What was also exciting was to see the

reaction from the remote audiences, especially at the high schools. Some of these kids had no idea that people like this did science at all, much less became eminent in it. The one comment we heard most was that the show was too short." William Dunnett, manager of public affairs for

BMS, distributed questionnaires to the high school students who watched the live feed. "We got an overwhelmingly positive response," he says. "Many said, 'I wasn't aware that these avenues were even open to minorities. It may change my career plans.'"

The Program has reciprocal benefits for BMS. "Many medical students never get to see the inside of a research center for a major pharmaceutical company," Harris says. S. Anders Hedberg, director, Center for Science Education, BMS Pharmaceutical Research Institute, says, "Because of the increasingly close alliance between academic and industrial science, we need to know that doctors and scientists are well informed about our research objectives here."

The 1996 Fellowship symposium will be held on January 24, 25, and 26 at the Richard L. Gelb Center for Pharmaceutical Research in Wallingford, Connecticut. For information on the Program, write: The Fellowship Program in Academic Medicine for Minority Students, National Medical Fellowships, Inc., 110 West 32nd Street, 8th Floor, New York, NY 10001.

A Minority of One: Carmen Parseghian of Amgen

Carmen Parseghian is associate manager of the cell biology department of the analytical resources laboratories at Amgen. Cuban by birth, she is frank about her experiences as a Hispanic and as a woman. "As a minority," she says, "I have never experienced any problems, never had my skills questioned, but as a woman, I have. Men seem to have a real problem believing I have a brain."

At Parseghian's first job at a pathology lab, she worked for two men who excluded her from important decisions. Her boss treated her "like his child." At hiring time, qualified women were passed up in favor of less competent men. When she went to work at California Institute of Technology, her new boss, a woman, gave her more freedom. "It was incredible," Parseghian says. "I thought, 'God! She believes in me. She sees I can do it.'"

When the time came for her to interview at Amgen, Parseghian already had a job offer in hand—at a hospital where she suspected the same patterns of

benign condescension to women. She talked to a close friend, who advised her to buy a new car and drive the 45 minutes to an interview at Amgen. "I have been given opportunities here I never would have gotten anywhere else," she says. She is especially proud of her recent promotion: "When you get this kind of promotion from a man, some people may question it, but when you get it from a woman, you know it's because of ability."

Parseghian oversees the work of twenty other scientists. "In our lab we work primarily in developing cell proliferation assays to test the potency of our products," she says. "We support research and manufacturing, and we develop new methods, using new technology such as flow cytometry and the cytosensor. I attend new product meetings, and I travel to labs with whom we are collaborating."

When asked about being a minority scientist, she says, "I think most scientists are minorities—that is, very few people go into science because it requires a certain mindset. But science today, especially at companies like Amgen, has become totally global. I have never worked in a group that is so diverse. For that reason, I don't think minority job-seekers should think about being minorities. Go to school and do the best you can. What people will look at is your résumé and how hard you worked. This company is absolutely great about that. They want the best people, and if you show you can do it, they don't care what you are or where you're from." She advises job-seekers of all varieties to get lab experience: "If someone goes to school and takes advantage of internship programs or takes lab jobs at night, we know this person is really interested in working in the lab because they bothered to acquire some experience. We know they are trying. We look at these things."

Women, on the other hand, are going to have to be just a little bit better than the competition. "They must work on coming across as being very knowledgeable and professional," she says. "Nothing turns interviewers off more than those who show up knowing nothing about our company or what we do. Whoever or whatever you are, you have to decide what you want to do and work hard to be the best."

Christine Stevens

**assistant vice president
human resources
Wyeth-Ayerst Research**

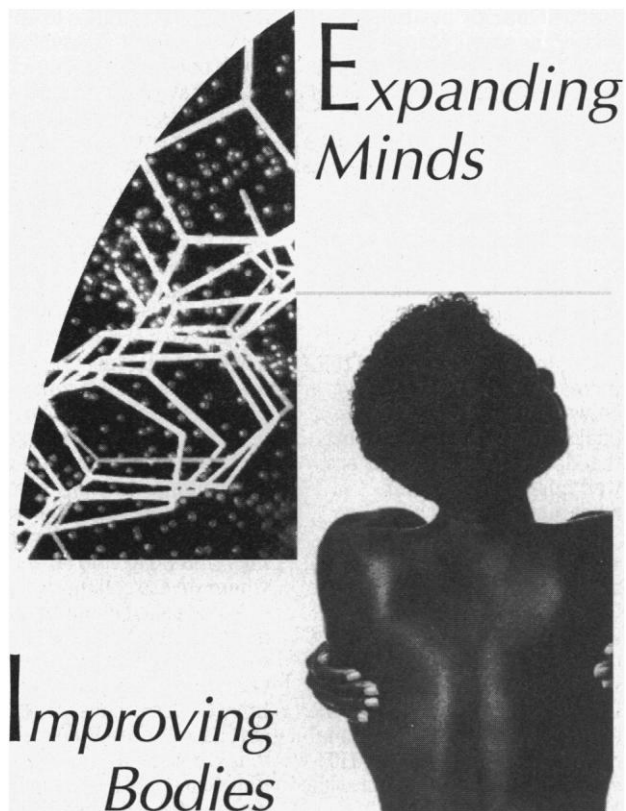
Our goal, as always, is to fill our positions with the best-qualified candidates, but at the same time we work to ensure that our recruitment efforts are covering a diverse cross-section of the population. Although scientific job candidate pools are inherently diverse, we participate in special recruiting events at minority colleges such as Howard University, and we target recruitment advertising to make sure that openings are posted at minority campuses or in minority publications such as *The Black Collegian*. The issues of *Science* devoted to diversity have been especially important in that regard. We conduct job fairs and recruit at other external events targeted at minorities. Other outreach efforts include the sponsorship of scholarship programs and participation in groups such as the National Black MBA Association.

Minority job-seekers certainly aren't at a disadvantage, and I can't say I have seen a reluctance in any department of this company to choose a minority scientist if he or she is the best candidate. Not that there aren't problems in attracting Hispanic and African American students to science. To get students excited about science, we are involved in programs as early as the gradeschool level. We're going into schools, making science presentations, offering tours of our labs, and encouraging young students. Many of our scientists volunteer to go to schools to mentor youngsters. They'll do everything, including helping them with their homework and science projects. Our minority and female scientists make particularly good role models for these students, providing them with options they may never have thought of.

It's especially exciting to reflect that one of our most recent major in-house discoveries involved Morris Husbands, a black CNS chemistry discovery scientist from Barbados. He was a vital element in the discovery of a recently marketed antidepressant. There aren't enough role models in the sciences out there yet for minorities, and we're dedicated to getting our successful minority scientists out there to show that it can be done.

What do we look for besides good grades and a science degree? Other distinguishing factors, such as enthusiasm for science, and demonstrated knowledge—not just on paper, but the ability to work hands-on. Lab work is an absolutely vital factor, even unpaid work during the school year or volunteer science. With two equal degrees, the one with lab work experience will stand out.

Communications skills are becoming increasingly important. Scientists at all levels are participating on interdepartmental teams. I really believe that the ability to communicate diverse viewpoints and solutions makes for good science.



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The Memorial Sloan-Kettering Cancer Center offers postdoctoral training fellowships in basic and clinical research. Stipends provided are based upon level of postdoctoral experience. For additional information write to the program directors listed below. Only U.S. Citizens or Permanent Residents are eligible for appointment.

CLINICAL SCHOLARS TRAINING PROGRAM IN BIOMEDICAL RESEARCH – Richard A. Rifkind, MD – Director

This program provides training for a select group of physicians who have completed their clinical training and demonstrate a commitment to careers in biomedical research. Training opportunities are available in the research programs of: molecular biology, cell biology and genetics, cellular biochemistry and biophysics, immunology and molecular pharmacology and therapeutics.

SURGICAL ONCOLOGY RESEARCH TRAINING PROGRAM

Murray F. Brennan, MD – Director

The program seeks to strengthen academic surgical oncology research by training surgical fellows in laboratory research related to biology of human cancer. Research opportunities include areas such as metabolism, neurophysiology, molecular biology, cell biology, immunology, immunopathology and genetics.

PSYCHIATRIC AND PSYCHOLOGICAL RESEARCH TRAINING IN AIDS – Jimmie Holland, MD – Director

This training program seeks to recruit and train more investigators to conduct research on the mental health aspects of the AIDS epidemic. The program draws upon a faculty involved in investigations of psychiatric, neuropsychological, and behavioral aspects of AIDS/HIV infection in diverse populations (gay men, women, intravenous drug users and minority group members). Training includes didactic seminars, apprenticeship with experienced investigators, and supervised independent research.

PSYCHIATRIC AND PAIN RESEARCH TRAINING IN CANCER

Jimmie Holland, MD – Director

This training program seeks to address the urgent need for a cadre of investigators with expertise in the supportive care areas of pain, psychological distress, supportive/palliative care, psychoneuro-immunology and behavioral medicine. The training program is open to psychologists and physicians with training in psychiatry, neurology, medicine and oncology. Research focuses on the psychiatric, neuro-psychological, behavioral, neuroimmunological and pain related (clinical and laboratory) aspects of patients with cancer. Curriculum includes didactic seminars, apprenticeship with clinical investigators in pain, psychiatry, psychology and neurology and supervised independent research.

GASTROINTESTINAL ONCOLOGY RESEARCH

Sidney J. Winawer, MD – Director

The program offers opportunities for basic and applied research in Gastrointestinal Cancer. Interrelated groups are working on collaborative efforts and jointly participate. This affords the trainees an excellent opportunity to study a wide spectrum of biological, molecular genetic, immunological and pharmacological approaches to gastrointestinal cancer and its etiology. There is special emphasis on cancer prevention, nutrition and inheritance.

HEAD AND NECK TRAINING PROGRAM – SURGICAL ONCOLOGY Stimson P. Schantz, MD – Director

This is a two year program with dedicated clinical and research training opportunities in head and neck oncology. A specific focus will be placed on cancer prevention and detection strategy for tobacco-induced cancer.

CANCER CHEMOTHERAPY TRAINING PROGRAM

John Mendelsohn, MD and Dean Bajorin, MD – Co-Directors

The Oncology/Hematology Fellowship Program provides physicians with comprehensive clinical training necessary for certification in Internal Medical subspecialties of Oncology and Hematology and research training designed to prepare the trainee for an academic research career. Through the Cancer Chemotherapy Training Program, clinical and laboratory scientists provide research training in gene expression, growth factor modulation, differentiation, drug resistance, gene transfer, and clinical trials methodology after the completion of clinical training.

IMMUNOLOGY RESEARCH TRAINING PROGRAM

Kenneth O. Lloyd, PhD – Director

The program offers training in areas of modern immunology. These include human and mouse immunogenetics, function and mechanism of action of T lymphocytes, biology of B lymphocytes, molecular control of HLA antigen genes and T cell development and selection in the thymus and in the peripheral circulation. The Program also has strong efforts in tumor immunology, with an emphasis on an analysis of the immune response in tumor cancer antigens, the production of human and mouse monoclonal antibodies to tumor antigens and the clinical application of these antibodies.

ENDOCRINE AND METABOLIC RESEARCH TRAINING PROGRAM

Martin Sosenberg, MD, PhD – Director

The objective of this program is to develop research physicians and scientists who will contribute to an understanding and management of endocrine and metabolic diseases. Integrated are 17 faculty members of 4 neighboring institutions, Memorial Sloan-Kettering Cancer Center, The Rockefeller University, The New York Hospital-Cornell Medical Center and The Population Council. Some areas of research include: mechanism of hormone action, hormonal control of growth and differentiation, regulation of testicular function, neuroendocrine control of neural gene expression.

TRAINING PROGRAM IN MOLECULAR PATHOLOGY AND IMMUNOLOGY OF HUMAN CANCER – Juan Rosai, MD – Director

This two-year program aims to recruit, develop, and position pathologists committed to an academic career by training in laboratory research related to biology of cancer. Emphasis is on implementing basic science principles and methodologies as they apply to the molecular biology and immunopathology of neoplastic diseases. Active areas of research include: receptor biology, cancer genetics, control of cell growth, molecular mechanisms of drug resistance, tumor antigen immunochemistry, molecular neuro-oncology, as well as applied investigations on tumor suppressor genes and oncogenes.

TRAINING IN RADIATION ONCOLOGY SCIENCES

Zvi Fuks, MD and C. Clifton Ling, PhD – Co-Directors

The overall objective of this program is to promote the development of full-time academic careers targeted to integrating clinical, biological and physical investigations with clinical radiation oncology to improve the management of cancer. For radiation-oncologists-in-training, this program will provide a 2-year research rotation; for Ph.D. scientists interested in biological research, the 2-year training will be primarily laboratory-based with appropriate interface to clinical radiation oncology; medical physics trainees will participate in research projects related to radiotherapy for 2 years.

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The following research training opportunities are currently available at the National Institutes of Health.

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Regulation of Aldose and Aldehyde Reductase Laboratory of Ocular Therapeutics

A position is available for an independent researcher with expertise in molecular biology to establish studies on the molecular regulation of aldose reductase and aldehyde reductase. The candidate's work will complement ongoing studies on the amelioration of diabetic complications through inhibition of aldose reductase in animal models. The candidate will also be expected to establish collaborative studies with current laboratory staff. Space, postdoctoral fellow, budget and salary are committed. Candidates must be US citizens or permanent residents with training in molecular cloning, protein analysis, anti-sense, transgenic and knock-out technology. Please submit a *curriculum vitae*, bibliography, three letters of recommendation and a detailed statement of research interests and selected publications before January 2, 1996. Contact Peter F. Kador, PhD, Laboratory of Ocular Therapeutics (OE-103), NEI, Building 10, Room 10B11, 10 CENTER DR MSC 1850, BETHESDA MD 20892-1850.

Postdoctoral Positions

Drug Metabolism and P450 Enzymology Magang Shou, PhD

The focus of research is understanding the enzymatic activation of chemical carcinogens and drugs by human cytochromes P450. Applicants should have a strong background in *in vitro* metabolism using HPLC, GC-MS, MS, and NMR and have less than five years of postdoctoral experience. Experience in protein purification, construction and expression of recombinant virus, stereochemistry, and enzyme kinetics are highly desirable. Laboratory of Molecular Carcinogenesis (OE-103), NCI, Building 37, Room 3E24, 37 CONVENT DR MSC 4255, BETHESDA MD 20892.

Glycocojugates of the Nervous System Richard H. Quarles, PhD

Research is on the functions of glycoproteins, gangliosides, and other glycolipids in the differentiation of oligodendrocytes and Schwann cells as well as their roles in myelination and the molecular pathogenesis of neurological diseases. Applicants should have a strong background in glycoconjugate biochemistry and less than five years of postdoctoral experience. Laboratory of Molecular and Cellular Neurobiology (OE-103), NINDS, Building 49, Room 2A28, CONVENT DR MSC 4440, BETHESDA MD 20892-4440.

Investigative Skin Biology Stephen I. Katz, MD, PhD

Immunology, cell biology, gene therapy, molecular mechanisms of blistering diseases, cell-cell and cell-matrix adhesion, DNA repair, biological aspects of HIV infection, and viral oncogenesis are being investigated. Applicants should have a PhD degree or an MD. MDs must have a minimum of two years of training in dermatology. Dermatology Branch (OE-103), NCI, Building 10 Room 12N238, 10 CENTER DR MSC 1908, BETHESDA MD 20892-1908.

Mechanisms of Skeletogenesis Harold C. Slavkin, DDS

The regulation and expression of genes involved in the determination and maintenance of chondrogenesis and osteogenesis is under investigation using relevant animal models and human tissues. Methods include sequence-specific mutagenesis, *in situ* hybridization, PCR, protein chemistry and immunohistochemistry. Applicants should have strong backgrounds in molecular and developmental biology and have less than five years of post-doctoral experience. Laboratory for Developmental Biology (OE-103), NIAMS, Building 6, Room 324, 6 CENTER DR MSC 2745, BETHESDA MD 20892-2745.

Molecular Biology Henry Levin, PhD

A laboratory has been established to study the process of retrotransposition in the fission yeast, *Schizosaccharomyces pombe*. The retrotransposon Tfl is a retrovirus model system that is being used to identify yeast gene products that contribute to transposition. Molecular biology, genetics and biochemistry will be employed in this work. Laboratory of Eukaryotic Gene Regulation (OE-103), NICHD, Building 6B, Room 2B-220, 6 CENTER DR MSC 2780, BETHESDA MD 20892-2780.

Molecular Mechanisms of Cellular Senescence J. Carl Barrett, PhD

The molecular mechanisms of cellular senescence are being investigated. Candidates should have experience in studying the mechanisms of cellular senescence as documented by outstanding publications in this area and less than seven years of postdoctoral experience. Applicants must respond to: Laboratory of Molecular Carcinogenesis (OE-103), NIEHS, Maildrop C2-15, P.O. Box 12233, Research Triangle Park, NC 27790 by December 10, 1995.

Additional Opportunities

The NIHEDNET Bulletin Board **POSTDOC** (fellowship positions) and **TENURE** (tenure track positions) conferences are accessed via a modem (301-402-2221 or 800-358-2221 with parameters set at 7, Even, 1) or the Internet using Telnet (wylbur.cu.nih.gov) or the World Wide Web (URL: [telnet:llwylbur.cu.nih.gov](http://telnet.llwylbur.cu.nih.gov)). When connected to NIH, key in ,rt100 for terminal emulation, F5E for initials, and AJL1 for account number. To view tenure track positions, **quit** the **POSTDOC** conference and **join** the **TENURE** conference.

An electronic version of the *Postdoctoral Research Fellowship Opportunities* catalog is accessed via the Internet using either the Gopher Information System (gopher.nih.gov) or the World Wide Web (URL: <http://www.nih.gov>). When connected with Gopher, select **Grants and Research Information** and then **NIH Office of Education**. When connected with WWW, select **Grants and Contracts** and then **NIH Office of Education**. If you have further questions, please contact the NIH Office of Education, Building 10, Room 1C129, 10 CENTER DR MSC 1158, BETHESDA MD 20892-1158, Phone 301-496-2427, Fax 301-402-0483.

To Apply

If you hold a graduate doctoral degree (e.g., PhD, MD/PhD) or a professional degree (MD, DO, DDS, DMD or DVM) accompanied by previous laboratory research experience, and would like to be considered for one of these positions, please send a cover letter, *curriculum vitae*, bibliography, and statement of research interests to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three scientists who can provide an evaluation of your qualifications.



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A Diversity of Diversity: Torres and Zapata of Genentech

"Diversity is more than a matter of gender, sexual orientation, or race," says Laurie Torres, employment manager for Genentech. "There's diversity in problem-solving techniques, too." Some scientists are analytical and methodical; some are creative and nonlinear. "At Genentech as at any biotech," Torres says, "there's no one way to do your job."

Genentech has a wide-ranging diversity effort. A director of diversity reports to the CEO, as does a diversity advisory committee. The company participates in African Americans in Bioscience (founded by Genentech employees), the California Alliance for Minority Participation, and other groups seeking to inform, recruit, and support students with an interest in science. Genentech also contributes to programs that give minority students the opportunity to do research ("a distinguishing factor in getting science employment," Torres points out). These include the University of California at San Francisco Research Training Program in Molecular and Cell Biology and the UC Davis Biology Undergraduate Scholars Program.

Genentech has an active outreach program to high schools and an extensive summer internship program. "For all that, the key to diversity is to establish personal ties with people of various backgrounds," Torres says. "We want people of all backgrounds to be able to come here, see people like themselves doing science, and see themselves working side by side with them someday."

Torres, while an optimist, realizes that the work is not close to being done. "We have to look at it from a long-term perspective," she says. "We want to be aggressive but realistic. Still, however slowly, things are getting better."

Gerardo Zapata is a scientist in the recovery process department at Genentech and a walking illustration of the diverse nature of science. "I started with an interest in oceanography, not knowing exactly what would be the best way to approach it," he says. After a BS in biology at the University of Puerto Rico at Mayaguez, Zapata did a master's program in marine chemistry.

At the University of North Carolina, he earned his PhD in biochemistry, studying concentrations of organic matter in sedimentary columns. After a five-year postdoc at the FDA, Zapata accepted a position at Genentech.

In recovery process, Zapata does small-scale development to support twelve-kilogram fermentations and recovery; his goal is to manage the science of producing and manufacturing biological products on a large scale.

"It's a pretty exciting area," Zapata says. "Often, when you start making a lot of an organism, it becomes easier to test and characterize. We can send it back to the people doing NMR and x-ray crystallography, as well as the analytical chemists, to learn more. It's like putting a molecule in the spotlight."

A great deal of money and pressure contribute to the excitement. "Even the most simple process can feel very difficult," Zapata says. "You have to be very sure of what you're doing. Mistakes can be magnified by several logs of magnitude."

Zapata was born in Venezuela, and his father worked in various capacities for the United Nations. That took Zapata to Mexico for four years, Colombia for one, and Ecuador and Puerto Rico for eight apiece before his six years of graduate study at North Carolina. "Nowhere have I felt that I was being treated differently because of my background," he says. "I've always been surrounded by committed, accomplished scientists. While there might be people at that level who do have racial problems—and I'm aware it's out there—I've never been personally aware of it. I believe that scientists are very open to excellence, wherever it comes from."

His experience of diversity continues at Genentech. "The more diverse the background, the more novel ideas can come to light," he says. "And if you can get collaborations started, you can accomplish lots of things, much more quickly than in an academic setting." Like Torres, Zapata sees diversity primarily in terms of problem solving. "Some people know computers; others know their science; some are more conceptual; some are more hands-on," he says. "This company can offer opportunities to lawyers, marketers, and researchers of all kinds. Diversity is how we do things around here."

ORGANIZATION / TITLE OF AWARD	ELIGIBILITY
American Association of University Women Grants and fellowships; dissertation, postdoctoral and project awards	Women pursuing advanced research in biology, chemistry, computer science, and engineering
American Chemical Society (ACS) Minority Scholars Program	African American, Hispanic, or American Indian students; high school seniors, first-year, sophomore, or junior college students in chemistry, biology, or chemical engineering
American Geological Institute (AGI) AGI Minority Geoscience Scholarships	High school seniors, undergraduates, graduate students in the geosciences
American Indian Science and Engineering Society (AISES) A.T. Anderson Memorial Award; Santa Fe Pacific Foundation Scholarships	Native American Indians who are student members of AISES. A.T. Anderson: graduate and undergraduates; Santa Fe: high school seniors in western states
American Society for Microbiology Graduate Scholarships	Minorities who have successfully completed first year of a PhD program in microbiology
Undergraduate Minority Summer Research Program Internships	Sophomores, juniors, and seniors; African Americans, Hispanic Americans, Native Alaskans, Native American Indians, and Native Pacific Islanders
AT&T Cooperative Research and Fellowship Program (CRFP)	Minority seniors applying to PhD programs in chemistry, chemical engineering, physics, or electrical engineering
Dual Degree Scholarship Program Internships	Minority and female high school seniors; consideration given to SATs, academic performance
Committee on Institutional Cooperation (CIC) Predoctoral Fellowships Program	Native American Indians, Black Americans, Mexican Americans, and Puerto Ricans studying for a PhD in chemistry, biology, engineering, and other sciences
Ford Foundation Predoctoral and Postdoctoral Fellowships for Minorities	Native Alaskans, Native Americans, Black Americans, Hispanic Americans, Native Pacific Islanders, Puerto Ricans in biological sciences or engineering
Foundation for Science and Disability Graduate Scholarships	Disabled graduate students; college students accepted to graduate school; chemistry, biology, engineering, computer science, medicine
MORE (Minority Opportunities and Research) Undergraduate and Graduate Scholarships	Minority students who are third-year undergraduates in biology, chemistry, and physics; also a graduate fellowship program
NASA Undergraduate Student Researchers Program (USRP)	African Americans, Hispanic Americans, Native American Indians, Native Pacific Islanders, and people with disabilities; high school seniors
National Medical Fellowships Scholarships for Medical Students	African Americans, Native Americans, Mexican Americans, and mainland Puerto Ricans; senior medical students
National Science Foundation (NSF) Graduate and Minority Graduate Fellowships	Minorities; women; people with disabilities; for study in physical, biological, behavioral, or social science
Women in Engineering and Computer and Information Science (WECS) Awards	Women pursuing graduate degrees in engineering, computer science, and information science

Scholarships and Fellowships for Minorities and Women in the Sciences: A Selection

NUMBER AWARDED	STIPEND	DEADLINES	CONTACT
various	Dissertation award: \$10,000; post-doctoral awards: \$15,000-\$20,000	various	American Association of University Women 1111 16th Street NW Washington, DC 20036 Tel: (202) 728-7603; FAX: (202) 872-1425
200	Up to \$15,000; \$2,500 for first-years and sophomores; \$5,000 for juniors and seniors	November 4, 1995	ACS Minority Fellowship Program 1155 16th Street NW, Washington, DC 20036 tel: (202) 872-6250 or (800) 227-5558 net: dpr94@acs.org
35+	\$10,000 for undergraduates; \$5,000 for graduates; renewable for an additional year by application	February 1	AGI Minority Geoscience Scholarships 4220 King Street, Alexandria, VA 22302-1502 Tel: (703) 379-2480; FAX: (703) 379-7563
A.T. Anderson: 250-350; Santa Fe: 5	A.T. Anderson: \$1,000 for undergraduates, \$2,000 for graduates; Santa Fe: \$2,500 per year	A. T. Anderson: June 15; Santa Fe: March 31	American Indian Science and Engineering Society 1630 30th Street, Suite 301 Boulder, CO 80301-1014 Tel: (303) 939-0023
various	\$12,000	May 1	Ms Irene Hulede Office of Education and Training American Society for Microbiology 1325 Massachusetts Avenue NW Washington, DC 20005-4171 Tel: (202) 737-3600 x295; FAX: (202) 737-0233
8-10	\$2,000; 8-10 weeks of basic science research laboratory work during the summer	February 1	
8-12	\$13,200; travel expenses; summer work at AT&T	January 15; selection by March 29	[Specify program] Administrator, 600 Mountain Avenue Room 3D-316, Murray Hill, NJ 07924 Tel: (908) 482-4822
3	Full tuition; textbooks; room and board; summer work	December 1; selection by February 1	
40	Full tuition plus annual stipend of \$9,000-\$10,000; available only at selected universities.	December 5	Committee on Institutional Cooperation (CIC) CIC Predoctoral Fellowships Program 803 E. 8th Street, Bloomington, IN 47408 Tel: (800) 457-4420; FAX: (812) 855-9943
Fifty predoctoral and 20 postdoctoral fellowships	Predoctoral: \$12,500; postdoctoral: \$25,000; dissertation: \$18,000	Predoctoral: November 3; post- doctoral: January 5	The Fellowship Office National Research Council 2101 Constitution Avenue Washington, DC 20418 Tel: (202) 334-2872
3	\$1,000	December 1	Foundation for Science and Disability 115 Brainard Avenue La Grange, IL 60525 Tel: (708) 352-1091
various	Full tuition, funded through schools with substantial minority student bodies	September 10 January 10 May 10	Division of Minority Opportunities and Research 45 Center Drive, Bethesda, MD 20205 Tel: (301) 496-7941
75	\$8,000/year for tuition and other study expenses; \$4,000 for mentorship and summer stipend	Institutions: April 26; student deadlines earlier	National Aeronautics and Space Administration NASA Headquarters-Code EU 300 E Street SW, Washington, DC 20546 Tel: (202) 358-0970
20	\$500-\$4,000	various	National Medical Fellowships 110 West 32nd Street New York, NY 10001 Tel: (212) 714-1007
1000	\$14,000	November 4, 1995	NSF Graduate Research Fellowships Program Oak Ridge Associated Universities P.O. Box 3010, Oak Ridge, TN 37881-3010 Tel: (615) 241-4300; FAX: (615) 241-4513 net: nsfgrfp@orau.gov
90			

Chart: Robert Rorke

Howard Hughes Medical Institute

Fellowships for Biological and Biomedical Sciences

The Howard Hughes Medical Institute announces the 1996 competitions for fellowship programs that support training in fundamental biological and biomedical research. Awards, based on international competitions, focus on research directed to understanding basic biological processes and disease mechanisms. Fellowships may be held at academic or nonprofit research institutions.

Predoctoral Fellowships in Biological Sciences

Up to five years of support for full-time graduate study toward a Ph.D. degree in biostatistics, cell biology and regulation, epidemiology, genetics, immunology, neuroscience, or structural biology. Applicants must not have completed the first year of postbaccalaureate graduate study in biology. *Application deadline: early November.*

Postdoctoral Research Fellowships for Physicians

Three years of support for training in fundamental research subsequent to at least two years of postgraduate clinical training and no more than two years of postdoctoral research training. *Application deadline: mid-December.*

Research Training Fellowships for Medical Students

An opportunity for medical students in the United States to explore a burgeoning interest in fundamental research. Support is awarded for one year of full-time fundamental research in a laboratory at the student's medical school or another institution (except NIH in Bethesda, Maryland). *Application deadline: early December.*

Research Scholars at the National Institutes of Health

Under this joint HHMI-NIH program, medical students in the United States spend an intensive year in research in the intramural program at NIH in Bethesda, Maryland. Residence is provided at the Cloister on the NIH campus. *Application deadline: early January.*

1996 Program Announcements and Applications

For Predoctoral Fellowships:

Hughes Fellowship Program
The Fellowship Office
National Research Council
2101 Constitution Avenue
Washington, DC 20418
United States of America
Telephone: (202) 334-2872
Fax: (202) 334-3419
E-mail: infofell@nas.edu

For Other Programs:

Howard Hughes Medical Institute
Office of Grants and Special Programs
Department AL96
4000 Jones Bridge Road
Chevy Chase MD 20815-6789
United States of America
Telephone: (301) 215-8889
Fax: (301) 215-8888
E-mail: fellows@hq.hhmi.org

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Expanding the Pool: Diversification at the Academy

Unity in Diversity: Rabi Musah and Rodrigo Chavez of the Scripps Research Institute

"If I had grown up in this country, I would not be where I am today. My experience abroad enabled me to compete." Rabi Musah, a post-doctoral chemist in the molecular biology department at the Scripps Research Institute, is reflecting on her educational background, which began with elementary and high school in the uncompromising British system of Ghana and culminated in the American higher education system. With a Ghanaian father and an American mother, Musah is, as she puts it, "an American who did not grow up in America."

Musah earned her BS in chemistry at Prairie View A&M University. For her PhD in organic chemistry, she went to the University of Arkansas in Fayetteville after taking a year and a half off for study: "I felt it was the only way I was going to compete." She worked as an intern at the Mobay Chemical Corporation by day and studied physical and organic chemistry by night. Once at Arkansas, she did thesis work in heavy-atom isotope effects and tracer studies in an effort to elucidate organic reaction mechanisms. At Scripps, Musah employs rational design to engineer proteins that will catalyze specific organic reactions; her work has possible applications in biosensor and bioremediation technology.

Her bicultural upbringing has brought one advantage. "I've had the benefit of being on the outside and looking in," she says. "I went into science without any prejudices or inferiority complexes." But she has experienced the residual prejudice in American culture firsthand. On her first day of teaching at Arkansas, she entered the classroom and a student blurted out, "Oh my God—out of all the TAs on campus, we get the black." Musah responded by addressing the entire class: "How you perceive me in terms of my color is irrelevant—our subject is chemistry. You don't have to like me, but by the end of the term, you will respect me."

Musah does agree that in the American job market, nonminorities are assumed to be competent and must earn disrespect, whereas minorities must earn respect. ("And that's not limited to science," she says.) There are also unhelpful attitudes within the African American community itself. "When African American people learn I'm a scientist, they're always shocked," she says. "I'm not sure why. I've even had people tell me, 'You shouldn't have gotten that PhD; now The Man's got you.'"

Musah's long-term options include further research, a possible medical degree, and the desire to bring something back to Ghana. "I know it sounds rather lofty," she says, "but I really would like to build or establish some kind of research institution in Ghana, either through a university or through private funding." She explains that her father raised her and her siblings to understand the importance of education. "Since knowledge is essentially infinite," she says, "the more you learn, the wider your field of choice."

Rodrigo Chavez, research associate in the chemistry department, is talking about his education, and the theme is confidence. Born in Mexico City, Chavez moved stateside when he was seventeen and started attending Southwestern Community College in Chula Vista,

California. At Southwestern, one of his professors was trying to calculate the pK of an acid. When Chavez suggested a good way to do it, the professor said, "You know, you're pretty smart for an Hispanic student." With this teacher's encouragement, Chavez transferred to San Diego State University, where he completed a BS and an MS in chemistry.

All along, confidence was an issue. "When you are part of a minority group, the tendency is to think you can't compete," he says. "And that was my problem much of the time: thinking I just couldn't do it. But I blame nobody but myself. At times I was shy, uncommunicative, perhaps unwilling to use my English."

Still feeling unready for a PhD, Chavez took a job at Cal Biochem—where he learned he did indeed have the talent. "The science was at a professional level there," he says. "I was getting results, and people can't argue with that." Chavez quickly hit an earnings ceiling. Needing a PhD to progress any further, he joined the PhD program in chemistry at the University of California at San Diego, where he was part of the Minority Biomedical Research Program (MBRS). His thesis work focused on the synthesis of brassinolide, a plant growth hormone. Through MBRS, he heard about the Scripps Minority Fellowship.

At Scripps, Chavez is studying the generation and screening of catalytic lipase-like antibodies. He likes the openness, the collegiality, and the human and technological resources all around him at Scripps. "Before coming here," he says, "my goal was perhaps to get an academic position anywhere that would accept me. But now I can see that I'm as competitive as anyone."

While he says he has never experienced outright rejection because of his origin, he adds that being an outsider can create very heavy internal pressures. "The problem is this: you feel that you are all by yourself out there," he says. "But in reality the doors are open to anyone willing to make the effort. If you want to take the chances and make the sacrifices, the career is there to be made."



Taking different paths to science careers: Rabi Musah (left) and Rodrigo Chavez

Good Chemistry at UC Irvine

Sitting around a table with Fillmore Freeman's laboratory staff is like taking a tour around the world. In terms of origin, gender, ethnicity, and point of view, they are a picture of the diversity of global science. These students include Hans van der Linden, a chemistry postdoc from the Netherlands; Geeta Govindarajoo, a second-year chemistry graduate student from Malaysia; Kevin Jeter, an African American finishing his chemistry degree after completing a degree in law; Tao

Chen, a second-year graduate student from China; and Phuong Dang, a graduate student from Vietnam.

They came to Freeman's lab via different routes. When shopping for postdocs, van der Linden liked the work Freeman was doing and the location near Los Angeles. Govindarajoo started doing research with Freeman as an undergraduate, liked it, and asked to come back for graduate study. Phuong transferred from a community college. And Jeter was attracted to Freeman's chemistry lab, with its reputation for bringing minorities together.

All discovered their interest in science in different ways. In high school in Vietnam, Phuong was more interested in mathematics than in chemistry. "When I first came here, I thought I would study

ABL-Basic Research Program

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Molecular Virology and Carcinogenesis

George F. Vande Woude, Ph.D., Program Director – molecular basis of neoplastic transformation; function of Mos in meiosis and transformation; hepatocyte growth factor/scatter factor and the Met receptor in tumorigenesis and metastasis

Alan R. Rein, Ph.D. – molecular mechanisms of retroviral replication; viral pathogenicity

George N. Pavlakis, M.D., Ph.D. – eukaryotic gene regulation; molecular biology of HIV and pathogenesis of AIDS

Barbara K. Felber, Ph.D. – molecular biology of human retroviruses: post-transcriptional mechanisms of gene regulation

Karen Vousden, Ph.D. – molecular mechanisms of transformation by human papillomaviruses; interactions of viral oncoproteins with tumor suppressor proteins and regulators of the cell cycle

Chemistry of Carcinogenesis

Anthony Dipple, Ph.D. – polycyclic aromatic hydrocarbon carcinogenesis and mutational specificity; chemical carcinogen-DNA interactions

Robert C. Moschel, Ph.D. – chemical synthesis of carcinogen-modified DNA; physical chemistry of carcinogen-DNA interactions; DNA adduct-induced mutagenesis in bacteria and mammalian cells; chemotherapy adjuvants

Molecular Basis of Carcinogenesis

Stephen H. Hughes, Ph.D. – structure and function of HIV reverse transcriptase; retroviral vectors; transgenic birds and mammals; *ski* oncogene

David Kaplan, Ph.D. – signal-transducing molecules in mitogenesis, oncogenesis, and development with an emphasis on the nervous system; function of Trk/neurotrophin receptors

Peter F. Johnson, Ph.D. – mammalian bZIP transcription factors: protein structure, dimeric interactions, mechanisms of transcriptional activation, and regulatory functions during cell differentiation and development

Nancy R. Rice, Ph.D. – study of the *rel* oncogene and the related NF-kB family of transcription factors

Deborah Morrison, Ph.D. – role of the proto-oncogene *c-ras* in mitogenic and developmental pathways; structure/function analysis of *c-ras*; identification of signal-transducing molecules

The ABL-Basic Research Program is dedicated to basic research in molecular biology, biochemistry, crystallography, genetics, virology, and organic chemistry. The scope of current projects is indicated by the research interests of the senior scientists listed above. Senior staff members enjoy complete independence in their choice of research problems and are accorded excellent facilities to accomplish their goals. A vigorous seminar program, implemented by formal and informal arrangements with the National Institutes of Health, Johns Hopkins University, University of Maryland, and other research and academic institutions, provides opportunities for extensive interaction within the scientific community.

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Neal G. Copeland, Ph.D. – development of mouse models of human disease; neurofibromatosis; gene targeting in ES cells

Nancy A. Jenkins, Ph.D. – molecular genetics of mouse development; transgenic mice; receptor/ligand interactions and their role in development

Peter J. Donovan, Ph.D. – development of the mouse germ line; germ cell gene expression; sterile mutants; cell adhesion molecules

Macromolecular Structure

Alexander Wlodawer, Ph.D. – structure of enzymes and cytokines studied by X-ray diffraction

Christopher J. Michejda, Ph.D. – antineoplastic and antiviral drug design; biochemical and molecular pharmacology

R. Andrew Byrd, Ph.D. – structure and dynamics of proteins and protein:nucleic acid complexes studied by macromolecular NMR techniques

Gene Regulation and Chromosome Biology

Jeffrey N. Strathern, Ph.D. – recombination; pseudogene formation; DNA repair in yeast; cell type regulation; gene expression

David J. Garfinkel, Ph.D. – mechanism and consequences of Ty retrotransposition; retrotransposon/retroviral hybrids; genome stability; gene regulation

Amar J.S. Klar, Ph.D. – mating-type switching of fission and budding yeast; genetics and molecular biology of recombination; gene regulation; cell differentiation and development

Stuart J. Austin, Ph.D. – chromosome stability in bacteria: regulation of plasmid replication and distribution of copies to daughter cells; plasmid maintenance in enteric disease

Donald Court, Ph.D. – regulation of gene expression by transcription initiation, transcription termination, and RNA processing

Andrew Golden, Ph.D. – signal transduction in the nematode *C. elegans*; role of proto-oncogenes and cell cycle genes in development

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How To Apply: Applications are accepted throughout the year, and candidates should indicate when they will be available for employment. Interested candidates should send an Application for Federal Employment (SF-171), Optional Application for Federal Employment (OF-612), or a current detailed Curriculum Vitae/Resume along with bibliography, statement of regulatory/research interest, transcripts, and names of three references to:

FDA/Center for Biologics Evaluation & Research
1401 Rockville Pike, HFM -60
Rockville, Maryland 20852-1448
Attention: EEO Recruitment Coordinator (234)

Fillmore Freeman

professor of chemistry
University of California at Irvine

"I still meet people," Fillmore Freeman says, "who are surprised I'm a scientist. Even students." In fact, Freeman, professor of chemistry at the University of California at Irvine (UCI) and an African American, was born to do science. At Central State University in Wilberforce, Ohio, he majored in chemistry and minored in mathematics and biology. He was also in ROTC at the time, but when he went to Michigan State and discovered he could do a PhD without first earning an MS, he decided, in his words, "against war and in favor of chemistry."

After his PhD, Freeman worked for two years in industrial science but felt drawn back to academic research. After a postdoc at Yale, he went to California State University at Long Beach in 1965 and to UCI in 1973. At UCI, he is doing exciting work in the synthesis of heterocyclic compounds with potential biologic activity against HIV. "We are studying certain garlic compounds that appear to act as HIV protease inhibitors," he says. "Our quest is to increase the bioactivity and lower the neurotoxicity of these compounds, which have shown some effectiveness in the treatment of human breast tumors." As with much AIDS research, Freeman is part of a team of scientists, including UCI Medical School faculty, virologists, and plant chemists. Wakanaga Pharmaceuticals has provided the garlic compounds, and the American Foundation for AIDS Research has provided a grant. "It all just fit together," Freeman says. "We were already studying heterocyclic compounds, and this project evolved."

When asked whether minority scientists have more of a credibility gap to get over than do other scientists, Freeman says, "Of course they do. Everybody has to establish their credentials, of course. That's normal. But in my experience, funding and promotion have come more slowly and with greater difficulty than they have for other scientists with the same credentials. It is a constant struggle, and it is nonsense." He tells of a prominent chemistry department that has had only one black faculty member in the last 30 years, only one woman on tenure track, and no Asian American faculty members. He is not bitter about these facts; matter-of-fact is a better description. "Certain branches of science, and certain departments, are more conservative than others," he says. "It is changing, I can say that—slowly, but it's changing."

Freeman is also actively involved in the Board of Admissions and Relations to Schools (BOARS), an effort to examine science education and eligibility requirements. He is disappointed with the number of minority students going into the sciences, and although he sees changes happening, his outlook is sobering. "We've got to improve the state of things from kindergarten through twelfth grade," he says. "Science in general is difficult, but when you come in with a learning handicap, it's even more difficult. You have all these kids who never get an opportunity to learn when learning is most beneficial. Small outreach programs are fine, but they are only a drop in the bucket. The real problem is so major nobody wants to deal with it."

For those considering science, Freeman's advice is this: "Realize from the outset that science is hard work and be committed to doing it. If you're good, the opportunities today are better than they used to be. Some companies and graduate schools are actively looking to diversify their employees and students. If you have enough inner strength and drive, you should go for it."

computer science," she says, "but then my sister advised me to consider chemistry, especially as it related to health science." Tao Chen says, "I was interested in science from the time I was very young. Luckily enough, I was good at it too, and that has been my direction ever since."

Jeter found out in his sophomore year. He had originally intended to major in political science—but one day he attended a lecture and realized he couldn't understand a word of it. "I realized then and there that political science wasn't for me," he says with a laugh. "I immediately changed to chemistry." Govindarajoo says, "I was put in a science direction very early. My mother is a doctor, and I thought I was going to be one. I liked the sciences. At first I tried physics, but that didn't interest me enough. I seemed to take to

chemistry, though." Van der Linden says, "Science always caught my attention—especially my first lab experience. We investigated just one little reaction, and watching the process really got to me."

All have divergent experiences concerning the climate for minorities in the sciences. While Tao Chen and Phuong see nothing special in their experience so far, Govindarajoo believes that some unspoken skepticism exists about the ability of different groups to do chemistry. "There is a credibility gap in this field," she says. "There are very few women and very few minorities." That is one of the reasons she would like to teach someday, perhaps back in Malaysia. "I want to show that anyone can do this," she says. "You don't have to be a male, or a member of a certain race. It's a challenge I welcome—I'm excited that I'm doing something new. Getting results is very good for your self-esteem." On the other hand, van der Linden finds more diversity here than back home. "In the Netherlands," he says, "chemistry is very male-dominated. It's a very social event over there. There are more coffee breaks. Here, all the exciting stuff happens in the lab."

Jeter says that among fellow scientists, he has seen some hesitation. "Without a doubt, I have to prove myself," he says. "But it fades after a while. You see it most in lectures and discussion sections. If I ask an insightful question in class, it shocks people; I'm like an oddity. When I lead discussion sections, undergraduates are surprised at first, but they get used to it." Tao Chen speaks from the special point of view of the international student. "When you first come here," she says, "all you think about is the science you're doing, and all your energy is focused on doing really well. I've been here much longer than most international students, and while science is still very important, it's not the only thing any more."

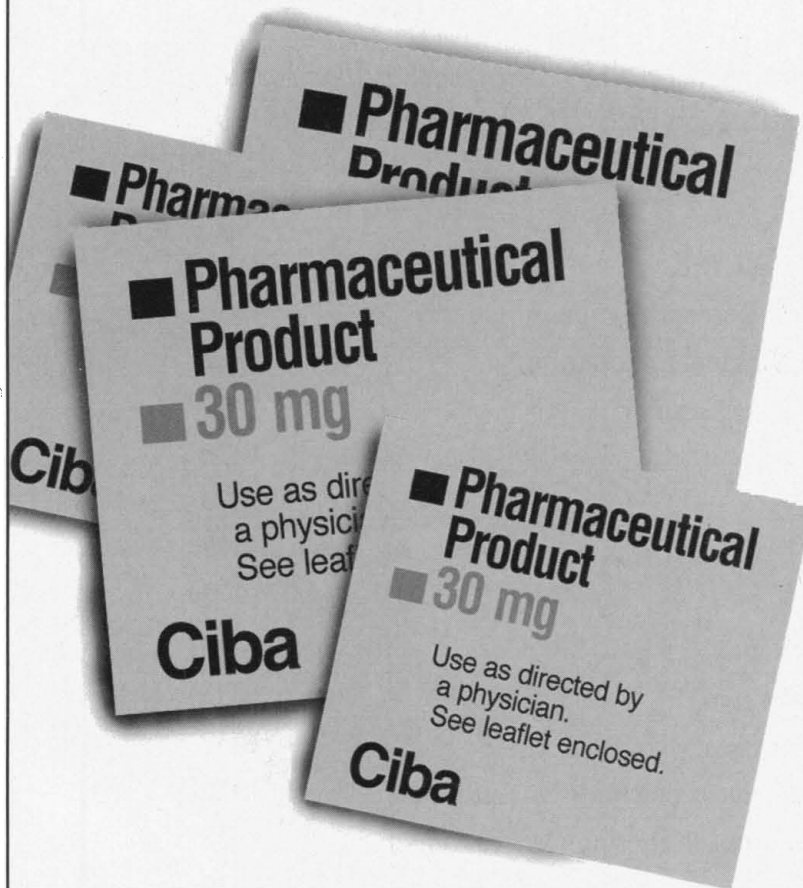
Their future plans are as various as they are. Whereas Govindarajoo looks forward to teaching,

Tao Chen would prefer to work in an industrial setting. Van der Linden and Phuong are interested in both academic and industrial options. Jeter's high-powered combination of chemistry and law degrees appears to be a world-beater. "After graduation, I'll start my own firm in patent law," he says. "I'm already on the Internet."

In their variety, this group conforms only in their dedication to their work and in their advice for people of any background who are interested in science. Kevin Jeter says, "Believe in yourself," and Geeta Govindarajoo says, "Don't be afraid to try. Just because it's unknown doesn't mean you can't do it."

John Timpane, PhD, writes frequently about the biotechnology and pharmaceutical industries.

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SCIENCE

PERSONNEL PLACEMENT

LINE CLASSIFIED ADVERTISEMENTS

Deadlines: Ads are due by Thursday, 10 a.m., 2 weeks prior to the issue date. *Science* is published each Friday, except the last Friday of the year. Call for holiday deadlines. Ads must be submitted in writing.

How to Submit a Classified Ad:

Prepare double-spaced typewritten copy. Do not include any abbreviations. *Science* will edit and typeset ads according to *Science* guidelines. Include billing information, and desired publication date. Available categories: Positions Open, Meetings, Announcements, Courses and Training, Search Firms. *Science* cannot provide proofs of typeset line ads.

Mail, FAX or Email materials to:

Science Classified Advertising
1333 H Street, N.W., Room 814
Washington, DC 20005
Telephone: 202-326-6555 or 202-326-6534
FAX: 202-682-0816

Internet Email: science_classifieds@aaas.org
(please include telephone number in email correspondences)

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Janis Crowley
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FAX: 202-682-0816

Debbie Cummings
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Science Global Career Network: Unless otherwise instructed, every classified advertisement submitted for publication in *Science* is automatically posted on *Science's* on-line classified advertising service, Science Global Career Network, at no additional charge. Science Global Career Network address:

WWW: <http://www.aaas.org>
Gopher: <gopher.aaas.org>

Science reserves the right, at its discretion, to edit or decline to publish advertisements submitted to it.

DIVERSITY & THE SCIENTIFIC COMMUNITY

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SCIENCE

COVERS THE WORLD

The Charles A. Dana Foundation Salutes the 1995 Winners of the Charles A. Dana Award for Pioneering Achievement in Health

H. Robert Horvitz, Ph.D.
Massachusetts Institute of Technology

and

Carla J. Shatz, Ph.D.
University of California, Berkeley

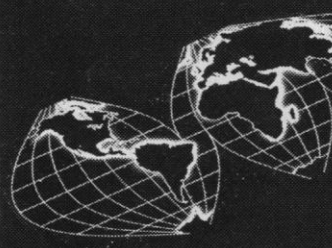
For independent research illuminating the complex molecular and cellular processes in the development of the brain and nervous system; for bringing to light long-mysterious interactions of nature and nurture in shaping our most fundamental capacities; and for charting the relationship between cell life and cell death on the road to healthy development, or to devastating disease.

The \$50,000 Award to each recipient honors discoveries in neuroscience that will lead or have already led to significant advances in the diagnosis, prevention, or treatment of human health problems. By making these Awards, the Charles A. Dana Foundation wishes to highlight the significant impact that research in neuroscience can have on problems that cause incalculable human suffering, demonstrate the essential interrelationship between basic research and clinical progress, and set forth the urgency of further work.

Nominations for the 1996 Awards are now being solicited from the neuroscience community; the deadline for submission of the nominations is January 10, 1996. Information and application packets can be obtained from The Charles A. Dana Awards for Pioneering Achievements in Health, Nominating Committee—Box S, c/o Ann Blanchard, Volen Center for Complex Systems, Brandeis University, Waltham, MA 02254; telephone (617) 736-3141, fax (617) 736-3142, e-mail: Ann@eliza.cc.brandeis.edu

The Charles A. Dana Foundation

David Mahoney, Chairman



A


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ready for a
whole new world
of challenge
and opportunity?

Sanofi Winthrop, Inc., a major developer and marketer of ethical pharmaceuticals, is the newly acquired North American division of Sanofi, a diversified healthcare company with headquarters in Paris, France. We are a global company with over 40,000 men and women in more than 100 countries and hold leading positions in world markets.

The Sanofi Research Division is dedicated to the development of innovative new therapies, including many that address diseases often associated with the aging process: cardiovascular, thrombosis, central nervous system and cancer. Many of our promising research candidates are in later stages of clinical trials, and we anticipate significant future growth within the industry.

Scientists interested in joining a team dedicated to bringing major innovative medicines to the marketplace by the end of the century, should forward their resume to: **Human Resources, Sanofi Winthrop, 9 Great Valley Parkway, Malvern, PA 19355.** We are an equal opportunity employer.

At Sanofi Winthrop, we believe a promising future can be a reality and we have made a commitment to serve the cause of life and good health for people throughout the world.



Postdoctoral Research at The Wistar Institute

The Wistar Institute offers Postdoctoral training in Molecular Genetics, Virology, Cell & Molecular Biology, Developmental Biology, Immunology, and Structural Biology. Fellows can anticipate a stimulating and challenging experience in an environment characterized by strong, interdisciplinary collaboration and state-of-the-art biotechnology.

Wistar is an independent, non-profit biomedical research institution with close collaborative relationships with the University of Pennsylvania and other major research and clinical organizations within the Philadelphia region. The Wistar Institute is an NIH-designated Basic Cancer Research Center.

Eligible fellows will be funded by a training grant awarded by the National Cancer Institute of the National Institutes of Health. We have an active minority recruitment program and strongly encourage minority candidates to apply.

Interested Postdoctoral applicants are requested to send a C.V. and the names of three (3) references to the **Coordinator of Research Training, THE WISTAR INSTITUTE, 3601 Spruce Street, Philadelphia, PA 19104.** EOE, M/F/D/V.



POSITIONS OPEN

FACULTY POSITION MAMMALIAN MOLECULAR GENETICS

The Department of Biological Sciences at the University of Pittsburgh anticipates making one full-time tenure-track faculty appointment in the area of genetics, beginning September 1996, to continue expansion of the Department. This appointment is expected to be made at the **ASSISTANT PROFESSOR** level, but under exceptional circumstances experienced candidates with outstanding records will be considered for appointment at higher rank. Applications are invited from candidates with research interests in any area of mammalian biology. Individuals with a strong research emphasis on genetic models of developmental or disease processes are especially encouraged to apply. The successful candidate will join another faculty member in utilizing our transgenic core facility. The successful candidate must have a Ph.D. and extensive postdoctoral experience and will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. In order to ensure full consideration, applications must be received by December 8, 1995. Applicants should send a curriculum vitae along with a summary of research interests and goals, and arrange to have at least three letters of reference sent to:

Dr. Richard Chaillet
Genetics Search Committee
Department of Biological Sciences
University of Pittsburgh
Pittsburgh, PA 15260
Telephone: 412-624-6987

The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply.

FACULTY POSITION UNIVERSITY OF CONNECTICUT NUTRITIONAL SCIENCES

The Department of Nutritional Sciences at the University of Connecticut invites applications for an anticipated nine-month tenure-track position at the **ASSISTANT/ASSOCIATE** or **FULL PROFESSOR** level. Candidates in all areas of nutrition will be given serious consideration, but those whose research utilizes biochemical or molecular techniques to address clinical or community nutritional problems will be given priority. Postdoctoral experience highly preferred. Selection of the final candidate will be based on the creative potential of the applicant's research, teaching accomplishments and capabilities, and research record. Send a curriculum vitae, statements of future research plans and teaching interests, and three letters of reference to: Hedley C. Freake, Chair, Nutritional Sciences Search Committee, Department of Nutritional Sciences, U-17, University of Connecticut, Storrs, CT 06269-4017. For additional information, Email: HFREAKE@CANRI.CAG.UCONN.EDU; Telephone: 860-486-3633; FAX: 860-486-3674. Deadline: December 31, 1995, or until the position is filled. We encourage applications from underrepresented groups including women, minorities, and people with disabilities. (Search #96A85)

TENURE-TRACK ASSISTANT PROFESSOR TUFTS UNIVERSITY CONSERVATION BIOLOGIST

Conservation Biologist. The Biology Department invites applications from ecologists addressing questions related to biological diversity and conservation at the population or community level. The position will begin in fall 1996. Applicants must have a Ph.D.; teaching and postdoctoral experience desirable. Research should emphasize community structure and ecological interactions in any terrestrial or aquatic habitat. Duties will include participation in university-wide environmental programs, and teaching introductory and upper-level courses in environmental and conservation biology. Candidates will be expected to develop an active research program involving undergraduate and graduate students in biology. Applications should include curriculum vitae, reprints of up to three publications, and statements of 1) present and future research plans, 2) teaching interests, and 3) interest in interdisciplinary environmental programs. Please send application and have three letters of recommendation sent to: Professor Jan A. Pechenik, Biology Search Committee, Tufts University, Medford, MA 02155. Completed applications must be received by December 18, 1995. Tufts University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.

POSITIONS OPEN

Southwestern University

AT GEORGETOWN, TEXAS

ASSISTANT PROFESSOR OF BIOLOGY

Southwestern University seeks candidates who are broadly trained in the field of genetics and botany for a **TENURE-TRACK** position in the Department of Biology. This position involves the teaching of introductory genetics (molecular, Mendelian, and populations), botany, and other biology courses in a liberal arts setting. Excellence in teaching and a Ph.D. degree are required. The successful candidate will be asked to participate in the department's undergraduate research program.

Southwestern University is a selective, undergraduate institution committed to broad-based liberal arts and sciences education. Affiliated with the United Methodist Church, it has over 1,200 students and a history of stable enrollment. Southwestern's endowment of more than \$175 million ranks among the highest per student of undergraduate institutions in the country. The university is located in Georgetown, Texas, 28 miles north of Austin, the state capital and site of the University of Texas.

Send a letter of application, curriculum vitae, description of teaching and other professional goals, and the names of three references to: **Biology Search Committee, Job Number 9552, P. O. Box 770, Georgetown, TX 78627-0770.** Deadline for applications is December 10, 1995. Southwestern University is an Affirmative Action, Equal Opportunity Employer. Southwestern University is committed to increasing the diversity of its faculty. Persons from underrepresented minority groups are encouraged to apply.

CELL PHYSIOLOGIST

The Department of Biology of The University of Akron invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level beginning on August 26, 1996. Candidates must hold a Ph.D. and postdoctoral experience is required. We are especially interested in, but not restricted to, candidates with research interest in cellular and molecular processes. The successful candidate will be expected to teach cell physiology, one other undergraduate course, and a graduate course in a specialty area; direct Master's students; and establish an externally fundable research program. The University of Akron is an urban university and is the third largest state university in Ohio with over 26,000 students. Review of applications will begin on January 15, 1996 and will continue until the position is filled. Applicants should send a curriculum vitae, a statement of teaching/research interests, and three references to:

Dr. Jerry Stinner, Chair
Search Committee
The University of Akron
Department of Biology
Akron, OH 44325-3908
Email: JStinner@Uakron.edu
FAX: 216-972-8445

The University of Akron is an Equal Opportunity Education and Employment Institution.

The Department of Chemistry, York University invites applications for a **TENURE-TRACK** faculty position in theoretical physical chemistry, subject to budgetary approval. Candidates should have a strong record of accomplishment in research at the doctoral and postdoctoral levels. The successful candidate will be expected to direct an active research programme, and to develop and teach courses at the graduate and undergraduate levels. While an appointment at the Assistant Professor level is anticipated, especially well-qualified applicants will be considered for appointment at the Associate Professor level. Candidates should provide a curriculum vitae, a statement of research interests and plans for a proposed programme of research, and should arrange for three letters of recommendation to be sent to: **Dr. S. V. Filseth, Chair, Search Committee, Department of Chemistry, York University, 4700 Keele Street, North York, Ontario M3J 1P3 Canada.** Review of applications will begin on January 8, 1996 and continue until the position is filled. York University is implementing a policy of Employment Equity including Affirmative Action for women faculty. Qualified women and men are invited to apply. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

POSITIONS OPEN

ASSISTANT PROFESSOR ANIMAL BEHAVIOR

The Department of Biology at the College of William and Mary in Virginia invites applications for an entry-level **TENURE-TRACK FACULTY** position. The person we seek must be highly qualified to teach animal behavior plus behavioral ecology or population ecology at the undergraduate level and will be encouraged to develop advanced undergraduate or graduate courses in his or her area of expertise. In addition to a commitment to excellence in teaching, the successful applicant will be expected to establish a vigorous research program that could attract extramural funds. The College has an enrollment of 7,700 students among five schools of which 5,400 are undergraduates. The Department has 20 faculty and offers training through the Master's level. Participation in graduate training is expected. Extensive laboratory animal and field facilities are available. Preference will be given to applicants with significant postdoctoral experience. Applicants should include curriculum vitae with publication list, a statement of teaching and research interests, and the names, addresses, telephone, and FAX numbers of three individuals willing to submit letters of reference on request. Application materials should be sent to: **C. Richard Terman, Chair, Search Committee, Department of Biology, College of William and Mary, Williamsburg, VA 23187.** Evaluation of applications will begin on December 15, 1995 and will continue until the position is filled. The College of William and Mary is an Equal Opportunity/Affirmative Action University. Members of underrepresented groups (including people of color, persons with disabilities, Vietnam veterans, and women) are encouraged to apply.

PROFESSOR AND CHAIR OF PHARMACOLOGY AND CELL BIOPHYSICS

The University of Cincinnati College of Medicine invites applications and nominations for **CHAIR** of this department, which has a history of academic and research excellence. Current faculty support includes two training grants and two NIH Merit awards. The College receives approximately \$60 million in sponsored program awards and has significant interdisciplinary programs of distinction in cardiology, neuroscience, and oncology. Faculty have been internationally recognized for expertise in the generation/evaluation of transgenic mice. The college is developing an interdisciplinary Structural Biology program with 750, 600, and 500 MHz NMRs.

We seek qualified candidates with distinguished records in research, teaching, and service, and demonstrated excellence in leadership and administration. Individuals with nationally and internationally recognized and funded research programs in molecular approaches to pharmacology or related disciplines are particularly encouraged to apply. The Chair is responsible for medical and graduate instruction in pharmacology as well as for maintaining and developing outstanding, externally supported research programs within the department. Review of candidates will begin in late 1995. Send nominations and applications (include letter of interest, curriculum vitae, and three references) to: **Jerry B. Lingrel, Ph.D., Pharmacology Search Committee Chair, University of Cincinnati College of Medicine, 231 Bethesda Avenue, Cincinnati, OH 45267-0524.** University of Cincinnati is an Affirmative Action/Equal Opportunity Employer. Women, Minorities, Disabled, Veterans encouraged to apply.

DEVELOPMENTAL BIOLOGIST

The Department of Biology seeks an **ASSISTANT PROFESSOR** for a tenure-track position in animal developmental biology. The successful candidate is expected to develop and maintain an active teaching and research program that includes study at higher levels of organization, and to demonstrate appropriate training and experience. Teaching responsibilities include an introductory core course in physiology and development, an upper-level elective course in developmental biology, and an advanced course in the area of specialty. Commitment to research, with undergraduate involvement, is expected. Send curriculum vitae, teaching/research statement, and graduate/undergraduate transcripts by January 12, 1996, and have three reference letters sent to: **Professor David King, Chair, Search Committee, Department of Biology, Franklin and Marshall College, P. O. Box 3003, Lancaster, PA 17604-3003.** FAX: 717-291-4088. Franklin and Marshall College is committed to cultural pluralism through the hiring of minorities and women, and encourages all individuals to apply (Equal Opportunity Employer/Affirmative Action).

**Program for
Minority Research Training in
Psychiatry**

The American Psychiatric Association and the National Institute of Mental Health announce the availability of funds to support minority psychiatrists pursuing a career in psychiatric research.

- The program provides medical students and psychiatric residents with funding for stipends, travel expenses, and tuition for an elective or summer experience in a research environment.
- Stipends are also available for one- or two-year post-residency fellowships for minority psychiatrists.

Training takes place at research-oriented departments of psychiatry in major U.S. medical schools and other appropriate sites nationwide. A research mentor at the training site oversees the research training experience.

Application Deadlines:

- December 1 for residents seeking a year or more of training and for post-residency fellows;
- April 1 for Summer medical students who will start their training by June 30;
- or three months before training is to begin for medical students and other residents.

For more information about the PMRTP, call the toll-free number, 1-800-852-1390 or (202) 682-6225, or write:

Ernesto A. Guerra
Office of Research
American Psychiatric Association
1400 K Street, NW
Washington, DC 20005

**Harvard University
Biological Sciences in
Public Health Program**

at the



Ph.D. Program



offered through the Division of Medical Sciences,
Harvard University Faculty of Arts & Sciences
Graduate School of Arts & Sciences

Students wishing to study cellular and molecular biology or physiology as they pertain to major problems in public health should apply. Working in the areas of Cardiovascular Gene Expression, Molecular & Cellular Toxicology, Physiology and the Environment, Nutrition/Biochemistry, Cancer Biology, and Tropical Public Health, students will apply state-of-the-art technology to the solution of real life problems. Laboratory research focuses on both clinical and basic scientific investigation aimed at the *prevention* of disease.

Admissions Deadline: December 15, 1995

**1996 Minority Undergraduate Summer
Internship Program for those who will be
juniors or seniors in the fall of 1996**

June 10-August 16, 1996

This 10-week program offers hands-on research experience in basic or clinical scientific investigation aimed at the prevention of disease. To cover housing and living expenses while in Boston, approximately \$3,000 is awarded.

Application Deadline: March 1, 1996
To request a 1996 application contact:

Ruth Kenworthy, Administrator
Division of Biological Sciences
Harvard School of Public Health
677 Huntington Ave., 2-117
Boston, MA 02115
(617) 432-4470 phone
Kenworthy@CVLAB.Harvard.Edu

NRC-CNRC

NRC is a dynamic, nationwide R&D organization committed to helping Canada realize its potential as an innovative and competitive nation. Combining our strengths – outstanding people, core science expertise and information, research programs focused on key technologies and technology diffusion – with those of industrial and academic partners, we foster Canada's emerging national system of innovation.

You can make a difference at NRC!

Research Officer, Cellular Immunology

Research Officer, Bacterial Pathogenesis

Research Associate, Molecular Pathogenesis

Institute for Biological Sciences Ottawa, Ontario

Applications are invited from immunologists, microbiologists and molecular scientists to join our established Immunochemistry Program. Research activities are directed towards a molecular-level understanding of the role of glycoconjugates in human and animal diseases. The Program brings together a large multidisciplinary team with a focus on the design of novel carbohydrate-based vaccines, diagnostics and immunotherapeutic reagents. Group activities include the study of bacterial pathogenesis, vaccine design, cell adhesion studies and recombinant novel antibody research. Our research team collaborates with major research centres around the world and has strong interactions with industrial partners.

Your Challenge

Research Officer, Cellular Immunology: To develop a viable research program in T-cell immunology related to synthetic glycoconjugate, peptide and DNA vaccines. You must possess a PhD in Immunology with a strong record of research in cellular immunology infectious disease models.

Research Officer, Bacterial Pathogenesis: To develop a vigorous research program focusing on a molecular-level understanding of the microbial pathogenesis of medically important pathogens. Responsibilities will include the supervision of a large-scale pathogen production unit. You must have a PhD in Microbiology with post-doctoral experience in molecular mechanisms of bacterial pathogenesis.

Research Associate, Molecular Pathogenesis: Working within the Institute's established glycobiology research group, you will study mechanisms of carbohydrate-mediated pathogen attachment to mammalian cell surfaces and their role in mucosal immunity. You must be a recent PhD graduate in Microbiology, Cell Biology, Clinical Immunology or a related discipline with a background in molecular pathogenesis of infectious diseases.

NRC offers excellent research facilities and technical support, and the opportunity to work within a large focused group having varied scientific backgrounds. NRC offers a competitive salary, a benefits program and compensation for relocation expenses.

To explore any of these opportunities, send your application by December 31, 1995, indicating salary requirements and date of availability, and mentioning reference number BS-95-96-SC, to:
The Recruitment and Staffing Group, National Research Council Canada, Montreal Road, Building M-58, Ottawa, Ontario K1A 0R6.

NRC is an equal opportunity employer.

Vous pouvez obtenir ces renseignements en français.



National Research Council Canada
Conseil national de recherches Canada

Canada

POSITIONS OPEN

ASSISTANT PROFESSOR HUMAN MICROSCOPIC ANATOMY

Applications are being accepted for a **TENURE-TRACK** faculty position as a Human Microscopic Anatomist in the Department of Anatomy, Northeastern Ohio Universities College of Medicine (NEOUCOM). Proposed starting date for the position is July 1, 1996.

A successful candidate is expected to have a proven record of research and publications with a demonstrated ability or a potential to attract extramural funding. Preference will be given to candidates who use modern cell and molecular biology techniques to address problems in the area of developmental biology. Research interests of current faculty in the Department include nerve-muscle and cell-matrix interactions. Teaching responsibilities involve participation in a team-taught 14-week Microscopic Anatomy course for medical students. Candidates also have the opportunity to develop graduate courses that relate to their specialty. Salary, start-up funds, and facilities for research are competitive.

NEOUCOM, in consortium with Kent State University, The University of Akron, Youngstown State University, and eight teaching hospitals offer a combined B.S./M.D. degree. Basic medical science faculty participate in graduate programs leading to Ph.D.'s in the areas of neuroscience, cellular and molecular biology, physiology, pharmacology, and biological anthropology through the School of Biomedical Sciences at Kent State University. The Department of Anatomy currently has six full-time faculty.

Applicants are requested to forward their curriculum vitae, a statement of research interests, and the names of at least three references by January 1, 1996 to: **Dr. Jon Walro, Ph.D., Chairman, Human Microscopic Anatomy Search Committee, Department of Anatomy, Northeastern Ohio Universities College of Medicine, P. O. Box 95, Rootstown, OH 44272-0095. NEOUCOM is an Equal Opportunity/Affirmative Action Employer.**

ASSISTANT PROFESSOR

Insect Ecologist

University of Illinois at Urbana-Champaign

The Department of Entomology at the University of Illinois at Urbana-Champaign has a full-time tenure-track position available at the rank of **ASSISTANT PROFESSOR** for an insect ecologist, starting August 1996. Candidates should have a Ph.D. and expertise in insect-plant interactions at any level of biotic organization (molecular, physiological, population, community, ecosystem, or evolutionary ecology). Experience in applied entomology is desirable; a strong background in basic biology is essential. Responsibilities include maintaining an active research program and teaching at the undergraduate and graduate level. Salary will be commensurate with experience. Qualified individuals are invited to submit curriculum vitae, statements of research and teaching interests, and four letters of recommendation to: **Stewart H. Berlocher, Chair, Search Committee, Department of Entomology, University of Illinois, 320 Morrill Hall, 505 South Goodwin, Urbana, IL 61801-3795. Telephone: 217-333-2929; FAX: 217-244-3499.** In order to receive full consideration, application materials must be received by January 3, 1996. Interviews may be conducted before the closing date, but no final decision will be made before that time. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

Invertebrate Zoologist. The Biology Department of Albion College announces a tenure-track position as **ASSISTANT PROFESSOR** to begin in August 1996. A Ph.D. is required, and college teaching experience and a commitment to undergraduate excellence are preferred. The successful candidate will be expected to teach majors' course in Invertebrate Zoology and Ecology, lecture/lab responsibilities in team-taught "Principles of Biology" and "Organismal Diversity." Seminar courses in specialty area encouraged. A research program incorporating undergraduate students is expected. Facilities include modern building with TEM, SEM, controlled environment rooms, greenhouse, and 135-acre nature center. Send letter of application, current curriculum vitae, transcripts, and three letters of reference to: **Dr. Ruth E. Schmitter, Chair, Biology Department, Albion College, Albion, MI 49224.** Deadline for applications is December 15, 1995. *Albion College is an Equal Opportunity Employer and encourages applications from women and minority candidates. Additional information is available at Internet site <http://www.albion.edu>.*

POSITIONS OPEN



FACULTY POSITIONS: The Universidad Central del Caribe, an LCME accredited private nonprofit medical school in the San Juan metropolitan area of Puerto Rico, seeks applicants for full-time faculty positions in the areas of microbiology, pharmacology, and physiology. The positions are open for immediate filling. Successful applicants should have a Ph.D. or M.D. degree and will be expected to participate in the training of both medical and graduate students, to develop an independently funded research program, and to collaborate with existing basic and clinical science faculty members. Limited start-up funds and laboratory space are available. Please send curriculum vitae, representative publications, statement of research interests, and names of three references to: **Dr. Julia Bonilla, Dean of Medicine, Universidad Central del Caribe, School of Medicine, Call Box 60-32, Bayamón, PR 00960-6032. FAX: 809-740-4390.**

LINTON BISHOP PROFESSORSHIP IN HUMAN GENETICS Department of Genetics/Molecular Medicine Emory University Medical School

Through the generosity of **Dr. Linton Bishop's** family, the Department of Genetics and Molecular Medicine is searching for an internationally recognized **GENETICIST** who will hold the appointment as the Linton Bishop Professor of Human Genetics. Individuals specializing in gene therapy, the molecular basis of disease, or population and quantitative genetics are of special interest. The Department of Genetics and Molecular Medicine occupies newly remodeled and equipped space that includes research laboratories, a diagnostic laboratory, a molecular histology laboratory, a developmental genetics laboratory, and a departmental genetics clinic. Within the context of the University's Clinical Research Facility, the department also has access to an ultramodern gene therapy suite, which includes two operating rooms that communicate with a biohazard containment laboratory, as well as three patient isolation rooms. Emory's suburban campus encompasses the Medical School, the undergraduate college, and three of five affiliated hospitals that draw patients from throughout the region. Interested individuals should send their curriculum vitae and the names of three references to:

**Douglas C. Wallace, Ph.D.,
Robert W. Woodruff Professor of Molecular Genetics
Chairman, Department of Genetics
and Molecular Medicine
1462 Clifton Road, Room 446
Emory University School of Medicine
Atlanta, GA 30322**

Emory University is an Equal Opportunity/Affirmative Action Employer.

ASSISTANT PROFESSOR MOLECULAR, CELLULAR AND DEVELOPMENTAL BIOLOGY

The Division of Biology of Kansas State University (KSU) invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. We seek an individual who will establish a strong, extramurally funded research program as well as participate in our undergraduate and graduate teaching program. A Ph.D. or equivalent and postdoctoral training are required. The position includes a competitive salary and start-up package. A research focus on developmental genetics utilizing an animal model system is preferred, but individuals working in related areas within the larger context of molecular, cellular, and developmental biology will be considered. The Division of Biology is a large, diverse unit with a strong record of research productivity and funding, and established investigators in areas relevant to the search. For more information go to <http://www.ksu.edu:80/biology/>. Applicants should submit a curriculum vitae, selected reprints, and summary of research interests, and have three letters of reference sent to: **Robin Denell, MCDB Faculty Search Committee, Division of Biology, Ackert Hall, Kansas State University, Manhattan, KS 66506-4901.** Applications should be received by January 16, 1996. *KSU is an Equal Opportunity/Affirmative Action Employer, and encourages diversity among its employees.*

POSITIONS OPEN

FACULTY POSITION MICROBIOLOGY

The Department of Biological Sciences at the University of Pittsburgh anticipates making one full-time tenure-track faculty appointment in the area of microbiology, beginning September 1996, to continue expansion of the Department. This appointment is expected to be made at the **ASSISTANT PROFESSOR** level, but under exceptional circumstances experienced candidates with outstanding records will be considered for appointment at higher rank. Research interests in any area of microbiology will be considered, but applicants working in the areas of bacterial pathogenesis, bacterial genetic regulation, or host-pathogen interactions are particularly encouraged to apply. The successful candidate must have a Ph.D. and extensive postdoctoral experience and will be expected to establish an extramurally funded research program, train graduate students, and participate in undergraduate education. In order to ensure full consideration, applications must be received by December 8, 1995. Applicants should send a curriculum vitae along with a summary of research interests and goals, and arrange to have at least three letters of reference sent to:

**Dr. Graham Hatfull
Microbiology Search Committee
Department of Biological Sciences
University of Pittsburgh
Pittsburgh, PA 15260
Telephone: 412-624-6975**

The University of Pittsburgh is an Equal Opportunity/Affirmative Action Employer. Women and minorities are especially encouraged to apply.

TWO ASSISTANT* PROFESSORSHIPS

Full-time **TENURE-TRACK** positions to start September 1, 1996. 1) Ecology/Environmental Biology (V-15) Ph.D. in biology/environmental biology. Broad-based training with research interests in ecology/environmental biology and ability to maintain an active research/scholarship program with student participation. Field expertise and excellent teaching ability required. Ability to teach B.S. plant and animal form and function, M.S./B.S. field ecology. Contribute to development of an environmental science Ph.D. program with biology component. 2) Biology/Science Education* (V-14) Ph.D. or Ed.D. with graduate level courses in biology and expertise in science education required. Teach plant and animal biology, general education, and graduate level science education courses. Contribute to development of a doctoral program in science education for K-12 teachers. Pursue successful research/scholarship/grant activities in science pedagogy.* Selected appointment at Associate rank may be possible.

Subject to available funding. Screening begins immediately and continues until positions are filled. Positions will not be filled before November 27, 1995.

Send application including current résumé, transcripts, and three letters of recommendation to: **Dr. Bonnie Lustigman, Biology Department, Montclair State University, Upper Montclair, NJ 07043. Montclair State University is an Equal Opportunity/Affirmative Action Employer.**

EVOLUTIONARY GENETICIST University of Arizona

Department of Ecology & Evolutionary Biology

The Department of Ecology and Evolutionary Biology seeks an evolutionary geneticist (Ph.D. required) to take a leadership role in interdisciplinary genetics campus-wide. The research area could involve either experimental or theoretical approaches to the genetics of any group of organisms, at any level from molecular to population, so long as the focus is on evolutionary questions. Important criteria include excellence in research and teaching at undergraduate and graduate levels. Although the search is focused at the **ASSOCIATE PROFESSOR** level, other ranks are not excluded. A 12 month salary is available when duties include a significant administrative component. Application review begins December 15, 1995 and continues until filled. Please send curriculum vitae, statement of research and teaching interests and three letters of recommendation to: **Dr. Richard Michod, Chair, Evolutionary Genetics Search Committee, Department of Ecology & Evolutionary Biology, Biological Sciences West, University of Arizona, Tucson, AZ 85721.**

The University of Arizona, an Equal Opportunity/Affirmative Action/ADA Employer, applications from women and minorities are encouraged.

SCIENCE AND MEDICINE AT FOX CHASE:

WHERE TODAY'S DISCOVERIES LEAD TO TOMORROW'S HOPE

Research conducted by scientists and physicians at Fox Chase for nearly seven decades has led to ground-breaking discoveries that have an impact on science and medicine today.

Current faculty research programs are wide-ranging and include gene expression; molecular aspects of oncogenesis; viral molecular biology and pathogenesis; molecular structure and function analysis; pharmacology and therapeutics; regulation and development of the immune system; cell cycle control; and human genetics, including the Human Genome Project.

An energizing environment with research as its major focus, the Center has more than 60 independent laboratories where investigators enjoy a unique advantage—to pursue their passion for discovery full-time, with minimal distractions by administrative or teaching responsibilities.

Tenure Track Faculty Positions:

At this time we are welcoming applications from outstanding independent investigators to fill Assistant and Associate Professor-level positions in structural biology, genetics, cellular and developmental biology, and immunobiology. We are interested in people using model experimental systems capable of addressing important biological questions and exploiting the exploding genetic data bases. Fox Chase offers excellent laboratory and animal core facilities and an extensive array of core resources and support services.

As a new faculty member, you will receive a generous start-up package including funds for equipment, technical assistance and operating expenses. You will have the opportunity to recruit postdoctoral trainees through an intramural, competitive program and to interact as an adjunct faculty member at nearby universities.

Interested candidates should send a C.V., summary of research interests and at least three references to: Search Committee, c/o Dr. A.M. Skalka, Director, Institute for Cancer Research, Fox Chase Cancer Center, 7701 Burholme Ave., Philadelphia, PA 19111.

Fox Chase Cancer Center is an Affirmative Action/Equal Opportunity Employer.

NEUROSCIENCE AND NEUROPSYCHOLOGY OF AGING PROGRAM
NATIONAL INSTITUTE ON AGING
NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE, BETHESDA, MARYLAND

ASSOCIATE DIRECTOR

The National Institute on Aging (NIA) is one of the world's largest and most comprehensive institutions in aging research. NIA conducts, fosters, and supports biomedical, social, and behavioral research and training pertaining to aging processes and common problems of older people. The Associate Director of the Neuroscience and Neuropsychology of Aging (NNA) Program provides leadership in the overall scientific administration of an innovative research program in the field of neuroscience and neuropsychology of aging with a budget of \$150 million. The NNA Program supports a broad spectrum of research and training aimed at a better understanding of age-related normal and pathological changes in the structure and function of the nervous system and how such changes affect behavior, including basic and clinical studies, clinical trials of interventions of therapeutic modalities, epidemiologic research to identify risk factors and to establish prevalence and incidence estimates of pathologic conditions, and research relevant to those geriatric problems arising from psychiatric and neurologic disorders associated with aging, including research on the etiology, treatment and diagnosis of Alzheimer's disease.

The ideal candidate has demonstrated scientific leadership and management of a basic or clinical neuroscience or neuropsychology research program of national and international standing. M.D., Ph.D. or comparable experience and training in one of the biological, behavioral, and/or biomedical sciences is required. This is a civil service position in the Senior Executive Service with an annual salary ranging from the ES-1 to ES-6 level (currently \$97,991 to \$122,040). Annual physicians comparability allowance of up to \$20,000 and/or recruitment or relocation bonus may be available.

Applications must be postmarked by December 8, 1995 and received by close of business December 15, 1995. All application forms are subject to the provisions of the Privacy Act and become the property of the DHHS. Applicants are required to submit a bibliography and either a curriculum vitae, Application for Federal Employment (SF-171), Optional Application for Federal Employment (OF-612), resume, or any other written format which addresses the requirements indicated in this announcement. Application materials must be sent to the following address:

**NATIONAL INSTITUTE ON AGING
BUILDING 31, Room 2C02
31 CENTER DRIVE MSC 2292
BETHESDA MD 20892-2292
ATTN: CHRISTINE HARTZ**



For further information contact Ms. Hartz at (301) 496-5347.

Selection for this position is based solely on merit, with no discrimination for non-merit reasons such as race, color, religion, sex, national origin, politics, marital status, physical or mental disability, age, sexual orientation, or membership or non-membership in an employee organization.

NIH is an Equal Opportunity Employer

POSITIONS OPEN

ANIMAL VIROLOGY

The Department of Virology and Immunology, chaired by **Dr. Jean Patterson**, at the Southwest Foundation for Biomedical Research invites applications for faculty-level positions at the **ASSISTANT, ASSOCIATE or SCIENTIST** level. The Department has eight faculty with research programs focusing on hepatitis viruses, human and simian immunodeficiency viruses, and herpesviruses. Major strengths of the Foundation are the extensive nonhuman primate resources, which include baboons, chimpanzees, and macaques. There is a strong postdoctoral training program and a close association with the University of Texas Health Science Center at San Antonio, including a role in graduate education. All candidates must have a minimum a doctoral degree in the biological sciences or an M.D. degree, and have completed at least two years of relevant postdoctoral research. Three or more years of relevant postdoctoral research is preferred. Candidates for Assistant Scientist must have the potential for building and directing an independent research program in animal virology. Candidates for Associate and Scientist must have demonstrated ability to direct an independent research program in animal virology and have been shown to be competitive for extramural support. Please mail curriculum vitae, a description of research interests, and the names, addresses, and telephone numbers of three references to: **Director of Human Resources (527), Southwest Foundation for Biomedical Research, P.O. Box 28147, San Antonio, TX 78228-0147. Equal Opportunity Employer.**

DEPARTMENT OF BIOLOGY COLLEGE OF CHARLESTON Charleston, South Carolina

The Department of Biology at the College of Charleston invites applications and nominations for **DEPARTMENT CHAIR**. The College of Charleston is located in downtown Charleston on the coast of South Carolina and has about 10,000 undergraduate and graduate students. The Department of Biology has 26 full-time faculty members on the main campus and at the Grice Marine Biological Laboratory on Charleston harbor, representing the full range of biological disciplines. The department has a total of about 1000 majors and offers the B.A. and B.S. degrees with emphases in general, marine, and molecular biology. The department also offers the M.S. degree in marine biology with about 50 students. For more information on the College of Charleston, see the home page at <http://www.cofc.edu>. Applicants should have a record of quality teaching and research, and should possess effective administrative and leadership skills appropriate to a department that is dedicated to a balanced program of teaching and research. Applicants should send a cover letter, curriculum vitae, and the names and telephone numbers of four references, one of which can address administrative skills, to: **Chair, Biology Chair Search Committee, Department of Biology, College of Charleston, Charleston, SC 29424. Telephone: 803-953-5504.** The search committee will begin screening completed applications on January 8, 1996, but applications will be accepted until the position is filled. *The College of Charleston is an Affirmative Action/Equal Opportunity Employer and encourages applications from women and minorities.*

TENURE-TRACK FACULTY POSITIONS Department of Microbiology and Immunology SUNY Health Science Center at Syracuse

The Department of Microbiology and Immunology at the SUNY Health Science Center at Syracuse invites applications for two tenure-track, full-time positions at the **ASSISTANT or ASSOCIATE PROFESSOR** level. Competitive applicants will have a Ph.D. degree or equivalent, postdoctoral experience, and a record of innovative research productivity. Applicants for Associate Professor should have current research funding. Preference will be given to candidates with research interests in microbial pathogenesis, molecular virology, and gene therapy. Salary, space, and start-up funds are competitive with national levels. Applications including a statement of research interests and goals; a curriculum vitae; and names, addresses, and telephone numbers for three references should be sent to: **Steven M. Taffet, Ph.D., Chair of the Search Committee, Department of Microbiology and Immunology, SUNY Health Science Center at Syracuse, 750 East Adams Avenue, Syracuse, NY 13210.** The deadline for applications is December 15, 1995.

The SUNY Health Science Center at Syracuse is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

Colorado State University

ASSISTANT PROFESSORSHIPS

Aquatic Biology and Plant Developmental Biology

The Department of Biology at Colorado State University (CSU) invites applications for tenure-track positions, pending funding, in higher plant developmental biology and aquatic biology. Candidates must have a Ph.D. in biology or related area; those with postdoctoral experience preferred. The successful candidates are expected to develop strong research programs and to participate in undergraduate and graduate education.

To apply, send a letter stating your teaching and research interests, a curriculum vitae, a copy of transcripts, letters from at least three references (sent separately), and no more than three publications to: **Aquatic Biologist Search Committee or Plant Developmental Biologist Search Committee, Department of Biology, Colorado State University, Fort Collins, CO 80523.** All materials are due by 15 December 1995. The search may be extended if suitable candidates are not found.

Ethnic minorities and women are encouraged to apply. CSU is an Affirmative Action/Equal Opportunity Employer. Office of Equal Opportunity, 21 Spruce Hall.

SOUTHERN ILLINOIS UNIVERSITY SCHOOL OF DENTAL MEDICINE Department of Applied Dental Medicine Section of Microbiology

The Department of Applied Dental Medicine is seeking applicants for a tenure-track position at the rank of **ASSISTANT/ASSOCIATE PROFESSOR**, available July 1, 1996. Responsibilities include course development and instruction for dental students in microbiology, immunology, and related oral biology, as well as research and service activities. Candidates must possess a Ph.D. in microbiology or immunology, have teaching experience in the health sciences, demonstrated research productivity, and a willingness to participate in interdisciplinary instruction. Preference will be given to D.D.S./D.M.D./Ph.D. dual degree applicants. Rank and salary are commensurate with experience and qualifications. Applications accepted until January 31, 1996, or until position is filled. Send a letter of application and curriculum vitae to: **Dr. Patrick J. Ferrillo, Dean, School of Dental Medicine, Southern Illinois University, 2800 College Avenue, Alton, IL 62002-4900.** *Southern Illinois University is an Equal Employment Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

Monmouth College seeks applications for two tenure-track **ASSISTANT PROFESSOR** positions in biology beginning fall 1996. Candidates with a Ph.D. and a strong commitment to undergraduate teaching in a liberal arts setting are encouraged to apply. Participation in general education courses and supervision of undergraduate research projects is expected. Candidates with interdisciplinary teaching experience preferred. Two positions: a Botanist and a Physiologist, each to teach at least three of the following six courses: Botany, Animal Physiology, Cell Biology, Mendelian Genetics, Microbiology, Molecular Biology. Opportunity to develop upper-level courses in specialty and/or courses to enhance our innovative general education program. Skills and experience to augment our Environmental Science program are desirable. Send letter of application, curriculum vitae, and at least three professional references with telephone numbers to: **Michael McNall, Director of Personnel, Monmouth College, 700 East Broadway, Monmouth, IL 61462.** Formal review of applications will begin December 15, 1995, and continue until positions are filled. *Monmouth College is an Equal Opportunity/Affirmative Action Employer and encourages applications from women and minority candidates.*

Wetland Plant Biologist, **ASSISTANT PROFESSOR** (tenure-track) beginning August 1996. Successful applicant will teach undergraduate courses in plant biology and a graduate course in wetland biology, maintain an active research program involving coastal (including estuarine or marine) wetland plants, and direct graduate students. Ph.D. with postdoctoral experience required. Send curriculum vitae, statement of teaching and research interests, graduate transcripts, and names of three references to: **Dr. Martin H. Posey, Department of Biological Sciences, University of North Carolina at Wilmington, Wilmington, NC 28403-3297** by 1 February 1996. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

UNIVERSITY OF TORONTO ERINDALE CAMPUS Department of Botany

The Department of Botany of the University of Toronto, Erindale Campus, invites applications for a full-time, tenure-stream appointment at the **ASSISTANT PROFESSOR** level in plant ecology. Applicants must have a Ph.D. degree, and postdoctoral experience is preferable. The successful candidate will be expected to develop an internationally recognized research program, teach introductory ecology, and participate in advanced undergraduate and graduate teaching, according to his or her area of specialization in plant ecology. Salary commensurate with qualifications and experience. Applications, including a curriculum vitae, brief statement of research interests, and three letters of reference, should reach: **Dr. J.B. Anderson, Plant Ecology Search Committee Chair, Department of Botany, Erindale Campus, University of Toronto, Mississauga, Ontario L5L 1C6 Canada** by January 15, 1996. This position is conditional on budgetary approval by the University of Toronto. *In accordance with Canadian Immigration requirements, this advertisement is directed toward Canadian citizens and permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples, and persons with disabilities.*

The University of Montana Department of Chemistry invites applications from an outstanding Ph.D. to direct the Shafizadeh Center for Wood and Carbohydrate Chemistry. The laboratory is well established and has an excellent research record. The candidate's record will be expected to indicate the ability to obtain external funding to carry out extensive research of high quality. A broad knowledge of chemistry related to wood and/or carbohydrates is required. The candidate should have an interest in and an ability for teaching at the undergraduate and graduate levels, preferably in organic chemistry. The salary is competitive.

Send a letter of application, curriculum vitae including publication list and grant history, and a brief statement of research interests (from which equipment needs can be determined) to: **Dr. G. N. Richards, Chemistry Department, University of Montana, Missoula, MT 59812.** Also arrange for three letters of recommendation to be sent to the above address by February 1, 1996. The selection process will begin on February 1, 1996 and continue until a suitable candidate is found. *The University of Montana is an Equal Opportunity/Affirmative Action Employer and encourages applications from women, minorities, Vietnam era veterans, and persons with disabilities.* This position announcement can be made available in alternative formats upon request.

ASSISTANT PROFESSOR, Botany. The Department of Biology at The University of West Florida is seeking applications for a tenure-track faculty position, available August 1996. Candidates with expertise in higher plants will be given preference. The successful candidate is expected to teach undergraduate and graduate courses in botany or other areas of expertise (e.g., cell/molecular biology, genetics, wetlands biology, or biochemistry), and develop an active research program involving undergraduate and Master's students. Qualifications include Ph.D. in botany or related field of plant science or biology and relevant research or teaching experience. Applicants should submit a statement of teaching and research interests, curriculum vitae, transcripts, and three letters of reference by February 1, 1996 to: **Dr. John P. Riehm, Chair, Department of Biology, The University of West Florida, Pensacola, FL 32514.** *An Equal Opportunity/Access/Affirmative Action Employer.*

FACULTY POSITION MEDICINAL CHEMISTRY UNIVERSITY OF WASHINGTON

Tenure-track position at the **ASSISTANT or ASSOCIATE PROFESSOR** level. Expertise in the areas of drug metabolism or biophysical applications of NMR is preferred. Development of an extramurally funded research program and teaching at the undergraduate and graduate levels are expected. Send by January 15, 1996, a curriculum vitae, a summary of a research proposal, and three letters of recommendation to: **Dr. Gary W. Elmer, Department of Medicinal Chemistry, Box 357610, University of Washington, Seattle, WA 98195-7610.** *The University of Washington is an Equal Opportunity/Affirmative Action Employer.*

**Association for
Chemoreception Sciences
Minority Travel Fellowships**

The Association for Chemoreception Sciences (ACHemS) is pleased to announce the availability of ten travel fellowships for students and scientists interested or considering a career in the chemical senses. The awards are funded by the National Institute on Deafness and Other Communication Disorders to defray cost of travel, meals, lodging, and registration to attend the annual meeting of AChemS in Sarasota, Florida on April 17-21, 1996

Members of African-American, Hispanic-American, Native-American, Pacific Islander, or other ethnic or racial groups underrepresented in chemosensory research will be considered. Applicants need not be AChemS members, but must be U.S. residents. Awardees will be selected according to their academic background, experience, and research interests.

Applicants are requested to submit a brief statement of research interests, their curriculum vitae, two letters of recommendation, and an indication of the minority group with which they identify by January 5, 1996 to:

**Travel Fellowship Committee
ACHemS Business Office
744 Dupac Circle
Tallahassee, FL 32312**



**MAYO CLINIC
MAYO CANCER CENTER**

Associate Director for Cancer Prevention and Control

The NCI-designated Mayo Cancer Center in Rochester, Minnesota, invites applications for Associate Director of Cancer Prevention and Control. Investigators with established research programs in cancer prevention and control and with demonstrated leadership skills are encouraged to apply. The Mayo Clinic provides an outstanding environment for conducting cancer prevention and control research, with particular strengths in epidemiology biostatistics and health services research. Interested candidates should submit a letter of application including a statement of research interests, curriculum vitae, bibliography, and list of references to:

James Ingle, M.D.
Associate Director for Clinical Research
Mayo Cancer Center
Mayo Clinic
200 First Street SW
Rochester, MN 55905

*Mayo Foundation is an affirmative action and
equal opportunity educator and employer.*



**Cell Biologist
Department of Biological Sciences
Dartmouth College**

The Department of Biological Sciences at Dartmouth College seeks applicants for a tenure track position at the level of Assistant Professor. We expect the successful candidate to establish and supervise an independent research program that will attract extramural funding and provide research training for graduate and undergraduate students. The successful applicant will join a group of faculty whose research involves cellular, genetic, and biochemical approaches to studying problems in a number of model systems. Candidates should have a Ph.D., (or equivalent,) and at least two years of relevant postdoctoral experience. Candidates should expect to participate in teaching cell biology or biochemistry to undergraduates as well as a graduate course in their area of research specialization.

Please send a current curriculum vitae, a statement of research and teaching interests, and arrange to have three letters of reference sent under separate cover to:

**Cell Biologist Search Committee
Department of Biological Sciences
Dartmouth College
6044 Gilman Hall
Hanover, NH 03755-3576**

Although materials can be submitted by FAX (603-646-1347), please note that the original documents are ultimately required. Application review will begin on December 1, 1995. Women and members of minority groups are strongly encouraged to apply.

*Dartmouth College is an Equal Opportunity/
Affirmative Action Employer.*

**Training
Opportunities
for MD and PhD
Scientists at the
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training is offered in
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research through two
NIH-funded programs
designed to develop the
careers of young
scientists.*

*Competitive stipends
are provided for US
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residents.*

*Apply now for positions
starting July 1, 1996.
Brochures available.*

Cell and Molecular Physiology of Reproduction

M. Bruns, PhD calcitropic hormones in pregnancy / **J. Castle, PhD** regulation of protein secretion / **A. Dalkin, MD** actions of inhibin, activin, follistatin / **R. Day, PhD** transcription: prolactin gene expression / **C. Desjardins, PhD** microvessels and steroidogenesis / **W. Evans, MD** luteinizing hormone synthesis/secretion / **C. Flickinger, MD** cell biology of vasectomy / **D. Haiselieder, PhD** neural control of gonadotropes / **M. Hanigan, PhD** drug resistance: ovarian tumors / **J. Herr, PhD** molecular biology of spermatogenesis / **B. Hinton, PhD** epididymis: cell and molecular biology / **M. Johnson, PhD** hormone secretion: math models / **I. Login, MD** pituitary secretory function / **J. Marshall, MD** gonadotropin subunit gene expression / **M. Menaker, PhD** circadian control of reproduction / **E. Rissman, PhD** GnRH neurons: environmental cues / **M. Shupnik, PhD** transcription: gonadotropin genes / **M. Thorner, MD** pituitary cells: neural hormone actions / **K. Tung, MD** mechanisms of tolerance and autoimmunity / **T. Turner, PhD** testis/epididymis microenvironment / **J. Veldhuis, MD** hormone action on granulosa cells / **J. White, PhD** mechanisms of sperm-egg binding

**Cell and Molecular Biology of the Urogenital
System**

R. Chevalier, MD renin-angiotensin system / **C. Desjardins, PhD** vascular cell biology / **W. Evans, MD** synthesis/secretion: peptide hormones / **C. Flickinger, MD** cell biology of vasectomy / **R. Gomez, MD** control of renin gene expression / **T. Haystead, PhD** smooth muscle contraction / **J. Herr, PhD** molecular biology of spermatogenesis / **B. Hinton, PhD** molecular biology of the epididymis / **S. Howards, MD** pathophysiology of varicocele / **R. Murphy, PhD** smooth muscle: signal transduction / **J. Sando, PhD** nuclear signalling: protein kinase C activation / **W. Steers, MD** neurophysiological control of bladder / **K. Tung, MD** mechanisms of autoimmunity / **T. Turner, PhD** pathophysiology of testis/epididymis / **J. Veldhuis, MD** neuroendocrinology of gonadal axis

Inquiries: Claude Desjardins, Medical Center
Box 391, University of Virginia, Charlottesville,
VA 22908. T 804-982-4310, F924-8785, Email:
reprod@virginia.edu.



POSITIONS OPEN

GENETICIST VERTEBRATE PHYSIOLOGIST CELL AND MOLECULAR BIOLOGIST University of Richmond

The Department of Biology at this highly selective liberal arts university invites applications for three tenure-track **ASSISTANT PROFESSOR** positions, to begin August 1996. A Ph.D. degree, strong commitment to teaching, ability to establish a research program in which undergraduate and Master's students can participate, and a willingness to consider collaborating with other faculty in teaching and research are expected. Teaching will include one of the core courses for biology majors (Botany, Zoology, Cell and Molecular Biology, Genetics), upper level courses in a specialty area (possibly cell signaling, comparative vertebrate physiology, evolutionary/population genetics, immunology, molecular genetics), and an occasional course for nonmajors. Preference to those with teaching and postdoctoral experience. All applicants must indicate the specific position(s) for which they are applying; a single application may suffice for more than one position. Submit by November 25, 1995, curriculum vitae, statements of teaching philosophy and research interests, official graduate and undergraduate transcripts, and three letters of recommendation to: **Dr. Valerie M. Kish, Chair, Department of Biology, University of Richmond, Richmond, VA 23173-9998. FAX: 804-289-8233; Email: kish@urvx.urich.edu.** The University of Richmond is an Equal Opportunity/Affirmative Action Employer and strongly encourages women and minorities to apply for its positions.

BRANCH CHIEF ENTOMOLOGY BRANCH Centers for Disease Control and Prevention Atlanta, Georgia

The Division of Parasitic Diseases, Entomology Branch, National Center for Infectious Diseases, Centers for Disease Control and Prevention (CDC), is seeking a qualified scientist to fill the position of Entomology **BRANCH CHIEF**. This position involves responsibilities for managing and directing comprehensive laboratory, field, and operational research in medical entomology and interacting with local, state, national, and international vector control programs. The position will be filled at the GS-14/15 level, with a salary range of \$61,943 to \$94,721 per annum, depending upon the qualifications of the applicant. Physicians may be eligible for a Comparability Allowance. The ideal candidate will have an earned doctorate, a demonstrated record of competitive and productive research in medical entomology, a broad perspective and background in field and laboratory science, solid managerial abilities, and established skills in the arenas of programmatic design and support. Interested individuals are invited to submit a curriculum vitae, list of publications, and names of three references to: **Ms. Janie Oddy, Personnel Management Specialist, Mailstop K-15, Centers for Disease Control and Prevention, Atlanta, GA 30341** no later than January 1, 1996. CDC is an Equal Opportunity Employer and provides a smoke-free environment.

ASSISTANT PROFESSOR HUMAN ANATOMY

The Department of Anatomy, Northeastern Ohio Universities College of Medicine, is seeking a **TENURE-TRACK FACULTY MEMBER** to participate in teaching medical gross anatomy/embryology, and to contribute to the research program of the Department. Applicants should have an active research program in morphological aspects of mammalian evolution and experience in teaching dissection-based human gross anatomy. The Department is interested in expanding its strengths in functional morphology, paleontology, and/or biological anthropology.

The Northeastern Ohio Universities College of Medicine is part of a consortium that includes Kent State University, The University of Akron, and Youngstown State University. Also included in the research base of the consortium is the Cleveland Museum of Natural History. A doctoral program in biological anthropology is offered through the School of Biomedical Sciences at Kent State University. Applications consisting of a cover letter stating research interests, curriculum vitae, and three letters of recommendation should be sent to: **Dr. Steve Ward, Department of Anatomy, Northeastern Ohio Universities College of Medicine, P. O. Box 95, 4209 State Route 44, Rootstown, OH 44272.** The appointment begins July 1, 1996. The deadline for applications is February 15, 1996. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

STROKE NEUROSCIENTIST DEPARTMENTS OF CELLULAR BIOLOGY, NEUROLOGY AND NEUROSURGERY Schumpert Chair in Neurobiology

Full-time, tenure-track, joint faculty position available January 1, 1996. Applicants should have a Ph.D. or M.D., postdoctoral experience, and a record of excellent research accomplishments in cell/molecular biology of stroke or related diseases. Candidates should have an established record of extramurally funded research support and be willing to participate in the neuroscience graduate program. Faculty rank will be commensurate with level of experience. A very attractive package including Schumpert Chair, research facilities, and start-up funds is available. Send curriculum vitae and description of current and future research plans to:

**Leonard L. Seelig, Ph.D.
Department of Cellular Biology and Anatomy
P.O. Box 33932
Shreveport, LA 71130**

Louisiana State University Medical College is an Affirmative Action Employer.

ASSISTANT PROFESSOR UNIVERSITY OF CONNECTICUT Department of Physiology and Neurobiology

The Department of Physiology and Neurobiology at the University of Connecticut at Storrs seeks an outstanding scientist to fill a **TENURE-TRACK** position. Candidates should have a Ph.D. or M.D. and at least three years of postdoctoral experience. Research may be in any area of physiology that is compatible with the department's existing interests in neurobiology, epithelial transport, endocrinology, and muscle physiology. Preference will be given to candidates whose research area is outside of the nervous system. The new faculty member is expected to develop an independent, extramurally funded research program, and to participate in both undergraduate and graduate teaching. Generous space, start-up funds, and benefits package are available. This position will begin September 1996. Applicants should send their curriculum vitae, together with a statement of research interests and names of three references, to: **Physiology Search Committee, Department of Physiology and Neurobiology, University of Connecticut, Box U-156, 3107 Horsebarn Hill Road, Storrs, CT 06269.** The University of Connecticut especially encourages minorities, women and people with disabilities to apply for this position. (Search number 96A161.)

ASSISTANT PROFESSOR BIOLOGY

The University of Maine at Farmington (UMF) invites applicants for a **TENURE-TRACK** position in botany for fall 1996. Contact load is 12 hours per semester including general botany and non-majors introductory biology. Ph.D. required for tenure, candidates with college teaching experience and field oriented research program in terrestrial or aquatic botany preferred. Active involvement of undergraduates in research particularly desirable. Minimum salary \$30,000 for Assistant Professor. Candidate review begins December 15, 1995. Submit statement of teaching philosophy and research goals, reprints, transcripts, curriculum vitae, and three letters of recommendation to: **Dr. Daniel Buckley, Chair, Biology Search Committee, Department of Natural Sciences, University of Maine at Farmington, Farmington, ME 04938.** UMF is an Equal Opportunity Educator and Employer and invites and encourages applications from women and minorities.

UNIVERSITY OF WASHINGTON Chemical Senses Neuroscientist

Tenure-track **ASSISTANT PROFESSOR** position in the Department of Otolaryngology-Head and Neck Surgery at the University of Washington. Candidate should be a Ph.D. or M.D. with postdoctoral training. Preferred research interests are cellular, molecular, or developmental problems in the olfactory system. Please send a curriculum vitae, a brief statement of research interests, and the names and addresses of three references to: **Marc D. Coltrera, M.D., Oto-HNS, University of Washington, Box 356515, Seattle, WA 98195-6515.** The University of Washington is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

BOTANIST

ASSISTANT PROFESSOR. Applications are invited for a tenure-track position in the Department of Biological Sciences at Butler University beginning fall 1996. The position emphasizes enthusiasm for high quality undergraduate teaching as well as directing undergraduate research. The successful candidate will be able to teach courses in local flora and general botany. All faculty participate in teaching introductory biology. The candidate will also have the opportunity to teach his or her specialty. The candidate's research should have a field component. Desirable areas include systematics, ecology, or ethnobotany. An individual research laboratory and start-up funds are provided. Generous internal funds are available on a competitive basis for continuing research. Butler University facilities include a greenhouse and a 100,000 specimen herbarium. Candidates must have a Ph.D. in the appropriate area. The successful candidate will have teaching experience and a curriculum vitae that reflects scholarly activity. Applicants should submit curriculum vitae, transcripts, statement of teaching and research interests, and names, addresses, and telephone numbers of three references to: **Dr. James L. Shellhaas, Department of Biological Sciences, Butler University, Indianapolis, IN 46208.** A review of the applications will begin on December 1, 1995 and will continue until a suitable candidate is found. Butler University is an Equal Opportunity and Affirmative Action Employer.

Biology. ASSISTANT PROFESSOR. Tenure-track. Ph.D. required. Broadly trained freshwater biologist with expertise in areas such as plant-animal interactions, analysis/modeling of aquatic systems, or physiological/organismal ecology. Expectations: strong commitment to undergraduate education; teach undergraduate and graduate courses in freshwater biology and related areas; participate in general biology program; serve as mentor for undergraduate research and Master's theses; seek extramural funding. Appalachian State University, a member of the University of North Carolina System, has an enrollment of 12,000. Among the 16 UNC campuses, Appalachian ranks in the top four in SAT scores, retention, and graduation rates. The Biology Department has 19 faculty, 500 majors, and 35 graduate students. Send letter of application; curriculum vitae; description of research interests; names, addresses, and telephone numbers of three references to: **Dr. Douglas Meikle, Chair, Department of Biology, Appalachian State University, 572 Rivers Street, Boone, NC 28608. Telephone: 704-262-3025.** Completed applications due by December 15, 1995. Appalachian State University is an Equal Opportunity Employer.

INVERTEBRATE BIOLOGIST

The Biology Department of the University of Scranton invites applications for a tenure-track **ASSISTANT PROFESSOR** position in invertebrate biology, starting in August 1996. Applicants must have a Ph.D., and postdoctoral experience is desirable. The successful candidate will contribute to the general biology course for majors; teach one course in physiology, ecology, or genetics; and develop an upper-division course in invertebrate biology. Excellence in teaching and maintenance of an active research program that will involve undergraduates are expected. The University of Scranton is a selective Catholic and Jesuit institution of 5,000 students, and is committed to liberal arts education while offering strong professional and pre-professional programs. Submit curriculum vitae, a statement of teaching and research interests, and three letters of reference by 15 January 1996 to: **Dr. Barry Anderson, Search Committee Chair, Biology Department, University of Scranton, Scranton, PA 18510-4625.** The University of Scranton is an Affirmative Action/Equal Opportunity Employer/Educator.

ENVIRONMENTAL HEALTH/BIOLOGY

Indiana University of Pennsylvania (IUP) invites applications for a tenure-track **ASSISTANT PROFESSOR** in environmental health to begin fall 1996. Doctorate required. Experience in environmental health, epidemiology, public health, or related field required. Responsibilities include development of a course in environmental epidemiology, participation in relevant biology courses, and research. Send curriculum vitae, statement of professional interests, transcripts, and three letters of reference by January 15, 1996 to: **Dr. T. W. Simmons, Department of Biology, Indiana University of Pennsylvania, Indiana, PA 15705.** IUP is an Affirmative Action/Equal Opportunity Employer.

THE NATIONAL RESEARCH COUNCIL

Postdoctoral & Senior Research Associateship Awards

Opportunities for research in:

Chemistry
Earth & Atmospheric Sciences
Engineering, Mathematics &
Applied Sciences
Life & Medical Sciences
Space & Planetary Sciences
Physical Sciences

- 420 awards for independent research at over 100 laboratories representing nearly all U.S. Government agencies with research facilities
- 12-month awards renewable for up to 3 years maximum
- Annual stipend for recent Ph.D. or M.D. graduates \$32,000 to \$45,500 depending upon sponsoring laboratory; stipend appropriately higher for senior researchers
- Support for relocation and professional travel; health insurance program offered
- 3 annual award competitions for most participating laboratories

Applications accepted on a continuous basis throughout the year. Those postmarked by January 15 will be reviewed in the February competition, by April 15 in June, and by August 15 in October.

For application materials and information on participating laboratories contact:

**ASSOCIATESHIP PROGRAMS
(TJ-2114/S4)**

NATIONAL RESEARCH COUNCIL
2101 Constitution Avenue, NW
Washington, DC 20418
FAX: (202) 334-2759



Qualified applicants will be reviewed without regard to race, creed, color, age, sex or national origin.



National Center
for Human
Genome Research

NATIONAL CENTER FOR HUMAN
GENOME RESEARCH
NATIONAL INSTITUTES OF HEALTH

GENOMICS SHORT COURSE FOR FACULTY AT MINORITY INSTITUTIONS

The short course provides support for research training of teaching faculty at colleges and universities with substantial minority enrollments. Participants will have the opportunity to spend two weeks at the National Center for Human Genome Research (NCHGR) laboratories and clinics at the NIH. During their stay, faculty will learn about the latest genome technologies, curriculum development and grant writing skills as well as the social and ethical implications of genome research. They will also have the opportunity to learn specific laboratory techniques which they can use to enhance their teaching and research. Applicants must be faculty members of colleges or universities with a substantial minority enrollment. The NCHGR will provide per diem during the period of the short course; however, the participant's home institution is responsible for travel expenses. Applications may be initiated by submitting: a curriculum vitae, a cover letter describing research and teaching goals and a supporting letter from the candidate's department head (or equivalent). Applications for the summer of 1996 should be submitted by January 1, 1996.

For short course application information or questions; contact:

**Paula Gregory, Ph.D., Chief
Genetics Education Office
NIH/National Center for Human Genome Research
Building 31, Room 4B09
9000 Rockville Pike
Bethesda, Maryland 20892**

Fax: (301) 402-2218; e-mail: edcore@nchgr.nih.gov

Women and minority candidates are strongly encouraged to apply.



**MAYO CLINIC
MAYO CANCER CENTER**

Staff Scientist in Cancer Research

The NCI-designated Mayo Cancer Center in Rochester, Minnesota, invites applications for several staff scientist positions in cancer research. Investigators with established research programs in areas of cancer biology with clinical/translational applicability are especially encouraged to apply. Areas of particular emphasis in the Mayo Cancer Center include breast and gynecologic malignancies, neuro-oncology (adult and pediatric primary brain tumors), prostate and genito-urinary malignancies, gastrointestinal malignancies, soft tissue sarcomas (including pediatric solid tumors), and hematologic malignancies. The Mayo Clinic provides an outstanding environment for investigators interested in applying modern advances in the cellular and molecular basis of cancer to improved methods in the prevention, diagnosis and treatment of cancer. Interested applicants should submit a statement of research interests, curriculum vitae, bibliography and list of references to:

Nita J. Maihle, Ph.D.
Associate Director for Basic Research
Mayo Cancer Center
Mayo Clinic
200 First Street SW
Rochester, MN 55905

*Mayo Foundation is an affirmative action and
equal opportunity educator and employer.*

POSITIONS OPEN

ASSISTANT/ASSOCIATE PROFESSOR IMMUNOLOGY Morehouse School of Medicine

Scientists with research expertise in areas of contemporary molecular or cellular immunology are invited to apply for two regular faculty positions in the Department of Microbiology and Immunology. Candidates for **ASSISTANT PROFESSOR** must have current postdoctoral experience and demonstrated ability to direct an independent research program and obtain extramural research funding. Candidates for **ASSOCIATE PROFESSOR** must have a record of current research productivity and funding. Morehouse School of Medicine is a young institution dedicated to the training of underrepresented minorities in medicine and graduate biomedical sciences, and to excellence in research. State-of-the-art research facilities plus individual start-up support will be available to the appointees. These positions offer the opportunity for full and rewarding scholarly growth. *Underrepresented minorities and women are particularly encouraged to apply.* Applicants should submit a curriculum vitae, statement of research background and plans, and names of three references to: Gordon B. Bailey, Ph.D., Chair, Department of Microbiology and Immunology, Morehouse School of Medicine, 720 Westview Drive, Atlanta, GA 30310. FAX: 404-752-1179.

BIOCHEMISTRY/MOLECULAR BIOLOGY MEHARRY MEDICAL COLLEGE

Faculty positions are available in 1995/1996 in the Department of Biochemistry, at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Applicants must have a Ph.D. or M.D. degree, or both, and appropriate formal postdoctoral research experience. Joint appointments in clinical science are possible. We are seeking individuals who have potential or demonstrated competence in the use of molecular biological or biophysical approaches to conduct research in molecular medicine, or on fundamental biochemical/cell biological problem(s). Selected individuals must also be capable of, and committed to making significant contributions to teaching and administrative functions of the Department of Biochemistry. Successful applicants will be expected to develop/maintain a funded research program of high quality and to substantially participate in the graduate and professional (medical, dental and applied health) school teaching programs of the Department. Applicants should send curriculum vitae, a statement on teaching interests, names of four individuals who may be contacted for reference, and a summary (not exceeding four pages) of potential research project(s) to: Ifeanyi J. Arinze, Ph.D., Chairman, Department of Biochemistry, Meharry Medical College, Nashville, TN 37208. *An Equal Opportunity/Affirmative Action Employer.*

ANIMAL POPULATION ECOLOGIST UNIVERSITY OF CONNECTICUT

The Department of Ecology and Evolutionary Biology has a tenure-track position, probably at the **ASSISTANT PROFESSOR** level, for a terrestrial or fresh-water animal population ecologist. Experimental approach preferred. Ph.D. required, postdoctoral experience desirable. Send letter of application, statements of teaching and research interests, curriculum vitae, reprints, and three letters of recommendation to: Dr. R. K. Colwell, Department of Ecology and Evolutionary Biology, U-42, University of Connecticut, Storrs, CT 06269-3042. Review begins January 15, 1996. *We encourage applications from underrepresented groups, including women, minorities, and people with disabilities.*

MetroHealth Medical Center/Case Western Reserve University (CWRU) School of Medicine, Cleveland, Ohio is seeking an academic physician to head an eight member Infectious Diseases Division. The candidate should have appropriate academic and teaching credentials for **ASSOCIATE/PROFESSOR** in a tenure track at Case Western Reserve University and evidence of externally funded research grant support. Areas of particular priority include HIV and tuberculosis, which complement existing CWRU strengths, and development of an integrated infectious disease fellowship program with the Institute of Public Health Sciences. For further information, send curriculum vitae to: G. Richards Olds, M.D., MetroHealth Medical Center, 2500 MetroHealth Drive, Cleveland, OH 44109. Telephone: 216-778-8266; FAX: 216-778-4978. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

TENURE-TRACK FACULTY POSITION University of Missouri-Columbia

The University of Missouri-Columbia (MU) seeks a tenure-track **ASSISTANT, ASSOCIATE, or FULL** Professor to be jointly appointed in the colleges of Veterinary Medicine and Agriculture, Food and Natural Resources. The successful candidate will be expected to lead an outstanding independent research program in an area of cell or structural biology of importance to basic biomedical aspects of veterinary medicine and agriculture, teach electron microscopy at the graduate level, and direct (at 20% effort) a recently established, campus-wide Electron Microscopy Core Facility under the auspices of the MU Molecular Biology Program. Experience in both plant and animal systems is preferred, but not required; postdoctoral experience is necessary. Applicants should submit, by January 31, 1996, a description of research plans, curriculum vitae, selected reprints, and names, Email addresses, and telephone/FAX numbers of three professional references to: Dr. Margaret A. Miller, Co-chair, Cell Ultrastructure Faculty Search Committee, UMC Veterinary Medical Diagnostic Laboratory, P. O. Box 6023, Columbia, MO 65205. Telephone: 314-882-6811; FAX: 314-884-7544; Email: miller@vmdl.missouri.edu. *The University of Missouri-Columbia is an Affirmative Action/Equal Opportunity/American Disabilities Act Institution. Women and members of minority groups are especially encouraged to apply.*

ASSISTANT/ASSOCIATE PROFESSOR PHYSIOLOGY/BIPHYSICS

The Department of Physiology and Biophysics of Indiana University School of Medicine is seeking applicants for a full-time tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level in the areas of cardiovascular physiology, cell biology/physiology, signal transduction, and respiratory biology. Candidates must have a Ph.D. or equivalent degree and at least three years of postdoctoral experience. The successful candidate will be expected to develop an independent research program. Send (1) curriculum vitae, (2) a concise statement of research interests and future plans, (3) representative reprints, and (4) names, addresses, and telephone numbers of three to five references by January 15, 1996 to: Chair of Search Committee, Department of Physiology and Biophysics, MS 374, Indiana University School of Medicine, 635 Barnhill Drive, Indianapolis, IN 46202-5120. *Indiana University is an Equal Opportunity/Affirmative Action Employer.*

MAGNETIC RESONANCE IMAGING (MRI)

Scientist, with background in cardiac MR imaging at the Ph.D. level, for **ASSISTANT PROFESSOR** of Radiology position at the Hospital of the University of Pennsylvania. Communication with M.D.'s essential. The applicant must have experience with cardiac functional imaging. Experience in pulse programming the GE Signa MRI scanner is highly desirable. Some experience in both RF coil and gradient coil design and construction is highly desirable. Experience with a whole body high field system (>3T) desirable. Applicants should have demonstrated research and teaching experience in MRI/MRS, as well as outstanding written and verbal communication skills. Send curriculum vitae to: Mitchell D. Schnall, M.D., Ph.D., Chief, Magnetic Resonance Imaging, Hospital of the University of Pennsylvania, 3400 Spruce Street, Philadelphia, PA 19104. *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer. Qualified female and minority candidates are encouraged to apply.*

EVOLUTIONARY/POPULATION BIOLOGIST

ASSISTANT PROFESSOR, tenure-track position, beginning August 1, 1996. Population biologist with broad training in ecology and genetics, including population/quantitative genetics. Teaching responsibilities include introductory biology, ecology, genetics, and advanced courses in area of specialty. Commitment to teaching excellence essential. Development of independent research program involving undergraduate and M.S. students expected. Ph.D. in the biological sciences with strong background in ecology and genetics required; postdoctoral research experience preferred. Send curriculum vitae, transcripts, statement of teaching and research interests, and three letters of reference, all postmarked by January 10, 1996, to: Search Committee Chair, Department of Biology, Western Carolina University, Cullowhee, NC 28723. *An Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

INTERDISCIPLINARY STUDIES

The University of South Florida (USF) seeks Program Director for Interdisciplinary Studies within the College of Arts and Sciences. Position requires an experienced, active teacher and scholar from discipline(s) ordinarily in the arts and sciences, with strong communication skills. This is a 12-month, tenure-track position, to be filled at the senior **ASSISTANT or ASSOCIATE PROFESSOR** level, to begin August 1996. Experience with interdisciplinary programs is greatly preferred; administration and program development highly desirable; Ph.D. required.

Applications should include cover letter, curriculum vitae, three letters of recommendation, documentary evidence of teaching effectiveness, and one sample of published research. Address: Chair, Interdisciplinary Search Committee, CPR 107, University of South Florida, Tampa, FL 33620-5550. Inquiries to: Rebecca Rahimi, Telephone: 813-974-9592; Email: rahimi@casdo.cas.usf.edu. Deadline for applications is (postmarked) December 15, 1995.

USF is an Equal Opportunity/Affirmative Action/Equal Access Institution. For disability accommodations, contact Phyllis Hamm, Telephone: 813-974-0932, a minimum of five working days in advance. By Florida law, applications and meetings regarding them are open to the public. Position is contingent upon funding.

San Francisco State University (SFSU) is seeking a person of vision with strong administrative management experience who can effectively set College priorities and policies; develop and manage budgets; and work closely with students, faculty, staff, and administrators to foster an environment of academic excellence. SFSU is a large urban university that serves a diverse student body in the liberal arts and professional programs. The College houses the School of Nursing, School of Social Work, Departments of Consumer and Family Studies/Dietetics, Counseling, Health Education, Kinesiology, Recreation-Leisure Studies, Gerontology Program, and Graduate Program in Physical Therapy.

The new **DEAN** should have a demonstrated commitment to academic excellence, multicultural education, and service to the urban community. He or she will be expected to maintain academic skills in the areas of teaching, research, and scholarly activity. The successful candidate must have experience in: interdisciplinary scholarship, teaching, administrative leadership, and obtaining external funding through promoting and maintaining close relationships with alumni(ac). An earned doctorate from an accredited institution is required.

Competitive salary will be commensurate with experience and qualifications. Please send résumé immediately to: San Francisco State University c/o Korn/Ferry International, 600 Montgomery Street, 31st Floor, San Francisco, CA 94111. *San Francisco State University has a strong commitment to Affirmative Action.*

Chemistry. Oxford College, located in Oxford, Georgia and a two-year division of Emory University, seeks to fill a full-time position in chemistry at the level of **LECTURER**, beginning in August 1996. The applicant must have a Master's degree in the field. Responsibilities include: preparation of laboratories and some laboratory teaching of introductory, general, and organic chemistry courses; maintaining the stockroom and ordering supplies; and supervision of instruments. The position could include design of experiments for teaching laboratories. Experience with the use of computers in chemistry is highly desirable. Submit curriculum vitae, transcripts, and the names, addresses, and telephone numbers of three references by December 31, 1995 to: Dr. Monica Ali, Chair, Department of Chemistry, Oxford College, Oxford, GA 30267. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

The Department of Biology, University of Puerto Rico (UPR), Río Piedras, invites applications for two tenure-track positions at the **ASSISTANT PROFESSOR** level, one in cellular/molecular biology, or other biotechnology-related field, the second in microbial genetics. The candidates are expected to develop active research programs and to teach at the graduate and undergraduate levels. Candidate must hold a Ph.D. or equivalent degree and have postdoctoral experience. Interested candidates should send résumé, a statement of current and future research goals, and three letters of reference before January 15, 1996 to: Dr. José E. García-Arriaga, Acting Chair, Department of Biology, Box 23360, UPR, Río Piedras, PR 00931-3360. *UPR is an Affirmative Action/Equal Opportunity Employer.*

**Interdisciplinary Graduate Program in
Cellular and Molecular Biological Sciences**

Mount Sinai School of Medicine

- Regulation of Gene Expression
- Cell Cycle and Growth Control
- Intracellular Protein Trafficking
- Signal Transduction and Membrane Biology
- Developmental Biology
- Structural Biology
- Molecular Virology

The graduate school at Mount Sinai School of Medicine has created an interdisciplinary PhD program in Cellular and Molecular Biological Sciences. Over 40 faculty members from different departments participate in the program. Stipends are available to all students as tuition-free fellowships. Interested candidates are urged to contact the Graduate School at the following address for more information and an application form:



Mount Sinai Graduate School of
Biological Sciences
Box 1022
One Gustave L. Levy Place
New York, NY 10029

Phone: (212) 241-6546
FAX: (212) 241-0651
E-mail: grads@smtplink.mssm.edu

**Organismic and Evolutionary Biology
Harvard University**



Graduate Studies

Application deadline, December 15

**Summer Minority Undergraduate
Research Program**

Application deadline, March 15

The Ph.D. degree is offered in many areas of biology including animal and plant systematics, behavior, biodiversity, biological oceanography, ecology, functional morphology, marine biology, molecular evolution, paleontology, physiology, population biology, and symbioses. OEB especially invites applications from candidates whose interests match the following training grants:

Department of Education

Molecular Biology of Complex Adaptations

National Science Foundation

Graduate Research Traineeships in Plant Systematics
Partnerships in Taxonomy: Filamentous Ascomycetes

National Institutes of Health

Training Program in Genetics

Mellon Foundation

Temperate Forest Ecology

All students receive substantial financial aid. **Contact:** Jay Taft or Yasmeen Husain, Dept. of Organismic and Evolutionary Biology, Harvard University, 26 Oxford Street, Cambridge, MA 02138
Phone: 617/495-2305, Email: yhusain@oeb.harvard.edu
Harvard is an equal opportunity/affirmative action employer.

EDUCATION/RESEARCH

**Assistant Professor
Animal and Food Sciences**

The newly merged Department of Animal and Food Sciences invites applications for two, nine-month tenure-track faculty positions at the Assistant Professor level. The **FOOD BIOCHEMIST/MOLECULAR BIOLOGIST** position is for a nutritional biochemist with research interests in dietary factors which influence cell growth, metabolism and the expression of genes important in the quality and safety of poultry and other food products. Applicants for the **FOOD MICROBIOLOGIST/MOLECULAR BIOLOGIST** position should have experience in Food Science or Microbiology. Applicants with interests in novel approaches to food quality and safety as applied to poultry production/processing are encouraged to apply. Applicants for both positions should hold a Ph.D. in an appropriate discipline and have postdoctoral experience. Successful candidates are expected to develop/maintain a high quality, extramurally-funded and contemporary research program. Teaching responsibilities (50%) are directed at both undergraduate and graduate students. Send a curriculum vitae, a statement of research interests and the name of five references by January 15, 1996 to: **Food Science Search Committee, Department of Animal and Food Sciences, University of Delaware, Newark, DE 19717-1303.**

The UNIVERSITY OF DELAWARE is an Equal Opportunity Employer which encourages applications from Minority Group Members and Women.



**AMERICAN ASSOCIATION FOR
CANCER RESEARCH**

The American Association for Cancer Research (AACR) is a professional society of over 10,600 scientists and physicians involved in all aspects of basic, clinical, and translational cancer research. Members of the AACR enjoy

- subscriptions to *Cancer Research*, *Cell Growth & Differentiation (CG&D)*, *Cancer Epidemiology, Biomarkers & Prevention*, and *Clinical Cancer Research* at reduced member rates
- reduced registration rates at the AACR Annual Meeting, Special Conferences, and International Meetings
- Employment Register, Directory of Members, public education activities, and many other benefits

Special programs to provide enhanced career development opportunities for minority scientists include

- **Session on Career Development at Annual Meeting**
- **Mentorship Program**
- **Travel Awards to Scientific Meetings**

American Association for Cancer Research

Public Ledger Building, Suite 816
150 S. Independence Mall West
Philadelphia, PA 19106-3483
Telephone: (215) 440-9300

FAX: (215) 440-9313 / E-Mail: aacr@aol.com

POSITIONS OPEN

FACULTY POSITION MOLECULAR BIOLOGY

The Department of Biology at Clark University invites applications for a tenure-track faculty appointment in molecular biology at the **ASSISTANT PROFESSOR** level. Two years of postdoctoral experience is desired. The successful candidate will be expected to establish a productive research program, teach a laboratory course in molecular techniques and a graduate course in the area of research interest, and participate in introductory biology. Formal review begins January 5, 1996. Applicants should submit a curriculum vitae, two reprints, a statement of teaching and research interests, and the names of three references to: **Chair, Molecular Biology Search Committee, Department of Biology, Clark University, 950 Main Street, Worcester, MA 01610.** *Clark University is an Equal Opportunity/Affirmative Action Employer.*

CELL BIOLOGIST/MICROBIOLOGIST

The Trinity College Department of Biology invites applications for a tenure-track position at the level of **ASSISTANT PROFESSOR** beginning in the fall term, 1996. Applicants must have a Ph.D. degree; postdoctoral experience is preferred but not required. Annual teaching duties are a course in general microbiology for which a command of prokaryotic biology is essential, and participation in a team-taught introductory biology course; in addition, a course in cell biology, and one in an area of the applicant's interest, is taught in alternate years; also, offering a course for non-majors is expected every other year. The successful candidate will initiate and pursue a program of independent research in which upper-level undergraduates may participate; excellent facilities and start-up funds are available. Send curriculum vitae, graduate and undergraduate transcripts, and three letters of recommendation to: **Robert H. Brewer, Chairman, Department of Biology, Trinity College, Hartford, CT 06106.** Evaluation of applications will begin on 14 December 1995, and continue until the position is filled. *Trinity College is an Equal Opportunity/Affirmative Action Employer and actively seeks applications from minorities and women.*

DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS Case Western Reserve University

The Department of Physiology and Biophysics invites applications for both **JUNIOR** and **SENIOR LEVEL FACULTY POSITIONS**. Suitable areas of research include, but are not limited to, muscle biochemistry/biophysics, membrane protein expression cloning, and cellular-molecular approaches to systems integrated physiology. We offer a highly competitive compensation package, ample start-up funds, and state-of-the-art research facilities. Salary and rank will be commensurate with qualifications and experience. Submit curriculum vitae, a brief statement of research interest(s), three representative reprints, and the names, addresses, and telephone numbers of four references to: **Antonio Scarpa, M.D., Ph.D., Chairman, Department of Physiology and Biophysics, 10900 Euclid Avenue, Cleveland, OH 44106-4970.** *Case Western Reserve University is an Equal Opportunity/Affirmative Action Employer.*

BIOLOGY FACULTY POSITION AMERICAN UNIVERSITY

The Department of Biology, part of the College of Arts and Sciences, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** rank for the fall of 1996. The department seeks a cell/developmental biologist who uses molecular techniques to study cell structure, gene expression, or developmental regulatory mechanisms. A Ph.D. is required and postdoctoral experience preferred. Evidence of strong teaching skills a plus. The successful applicant is expected to establish and maintain an active research program involving undergraduate and Master's level graduate students, teach majors and non-majors courses, and provide departmental and university service. Position is subject to budgetary approval. The search committee will begin reviewing applications on January 1, 1996, and will continue until the position is filled. Send a letter of application, curriculum vitae, and names of three references to: **Dr. Daniel W. Fong, Chair, Department of Biology, American University, Washington, DC 20016-8007.** *American University is an Affirmative Action/Equal Opportunity University, committed to a diverse faculty, staff, and student body. Women and minority candidates are strongly encouraged to apply.*

POSITIONS OPEN

ASSISTANT PROFESSOR

The Medical Sciences Program of the Indiana University School of Medicine in Bloomington invites applications from candidates with at least two years of postdoctoral experience for a 12-month, tenure-track **ASSISTANT PROFESSOR** position in anatomy, physiology or biochemistry starting July 1996. The successful applicant is expected to participate in the teaching of basic biomedical sciences to medical, graduate, and undergraduate students, and to establish an excellent extramurally funded research program that uses modern molecular and cellular techniques. Preference will be given to those candidates who can document both teaching and research expertise and whose research interests complement those of current faculty. Information: <http://www.indiana.edu/~medsci/> Applicants should send a curriculum vitae, a statement of teaching commitment and philosophy, a summary of current and anticipated research activity, and the names and telephone numbers of at least three references by January 15, 1996, to: **Search Committee, Medical Sciences Program, Indiana University School of Medicine, Myers Hall, Room 203, Bloomington, IN 47405-4201.** *Indiana University is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

The Department of Zoology at The Ohio State University seeks applications to fill a tenure-track, **ASSISTANT PROFESSOR** position to begin Autumn Quarter, 1996. The Department seeks an organismal physiologist with research interests and postdoctoral experience to complement strong programs in aquatic ecology, behavioral ecology, sensory biology, and our faculty's interest in conservation biology. The successful candidate will be expected to establish and maintain an active, extramurally funded research program and to mentor graduate students. Teaching responsibilities will include undergraduate courses in vertebrate physiology and cell biology and graduate courses in the candidate's field of research expertise. The committee will begin reviewing applications on January 15, 1996. Applicants should send a curriculum vitae and statements describing future research and teaching interests to: **Search Committee, Department of Zoology, The Ohio State University, 1735 Neil Avenue, Columbus, OH 43210-1220.** Telephone: 614-292-8088; FAX: 614-292-2030; Email: pappas.3@osu.edu. Applicants should arrange to have at least three letters submitted on their behalf. *The Ohio State University is an Equal Opportunity/Affirmative Action Employer. Qualified women, minorities, Vietnam-era veterans, disabled veterans, and the disabled are encouraged to apply.*

MARINE BIOLOGIST

The Department of Biology seeks an **ASSISTANT PROFESSOR** for a tenure-track position in marine biology. Preference will be given to candidates with expertise in invertebrates, marine biodiversity, and basic or applied ecology. Teaching responsibilities include one or more upper-level courses in these areas and an introductory course encompassing ecology, evolution, and genetics. An active research program, with undergraduate involvement, is expected. Send curriculum vitae, teaching/research statement, and graduate/undergraduate transcripts by January 12, 1996, and have three reference letters sent to: **Professor Roger Thompson, Chair, Marine Biology Search Committee, Department of Biology, Franklin and Marshall College, P. O. Box 3003, Lancaster, PA 17604-3003.** FAX: 717-291-4088. *Franklin and Marshall College is committed to cultural pluralism through the hiring of minorities and women, and encourages all individuals to apply (Equal Opportunity Employer/Affirmative Action).*

ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF BIOLOGY ITHACA COLLEGE

Ph.D. for a tenure-eligible position starting August 1996. The ideal candidate will teach and direct student research in vertebrate physiology; also be able to teach vertebrate anatomy and contribute to introductory biology. Required qualifications: Ph.D. with specialization in vertebrate physiology. Teaching and research experience desired. Send curriculum vitae and three letters of recommendation that must specifically address teaching and research potential to: **Biology Search Committee-Physiology, Biology Department, Ithaca College, 177 New Science Building, Ithaca, NY 14850-7278.** Application deadline: January 8, 1996.

POSITIONS OPEN

NEUROPHARMACOLOGIST Kansas State University

The Department of Anatomy and Physiology in the College of Veterinary Medicine invites applications for a tenure-track faculty position, at the **ASSISTANT PROFESSOR** level, from individuals who can contribute to a team-taught pharmacology course for veterinary students. Candidates should hold a Ph.D. in pharmacology or a related discipline and have at least two years of postdoctoral research training. The successful candidate will have an extramurally funded research program, or an established research program with considerable potential for securing extramural funding, and a strong commitment to excellence in teaching. The position is available August 1, 1996. D.V.M. and/or Ph.D. required. Applications should include a curriculum vitae, a statement of research and teaching interest, names and addresses of three references, and reprints of three representative publications. Applications will be received until February 1, 1996 or until the position is filled. Send applications to: **Dr. Jon D. Dunn, Department Head, Department of Anatomy and Physiology, VMS 228, Kansas State University, 1600 Denison Avenue, Manhattan, KS 66506.** *Kansas State University is an Equal Opportunity/Affirmative Action Employer.*

Mathematical/Computational/Statistical Geneticist, tenure-track **ASSISTANT PROFESSOR**, to begin fall 1996. We seek applicants with a strong background in mathematical/statistical/computational genetics. Ph.D. in relevant biological or physical science or mathematics is required. Postdoctoral or equivalent experience is essential. Theorists as well as those pursuing both theoretical and empirical research will be considered. Record of collaboration with experimentalists is preferred. Evidence of successful extramural research support is an asset. Teaching at both the undergraduate and graduate levels in genetics and mathematics is expected. A record of classroom teaching experience is preferred. The appointment will be half-time in the Department of Genetics and Cell Biology and half-time in the Department of Pure and Applied Mathematics. Screening of candidates will begin December 22, 1995, and continue until the position is filled. Successful candidate will be expected to obtain extramural support. Highly qualified candidates committed to a career in research and teaching are invited to send a curriculum vitae and statement of research and teaching interests, and have three letters of recommendation sent to: **Chair, Mathematical Biologist Search Committee, Department of Genetics and Cell Biology, Washington State University, Pullman, WA 99164-4234.** Email: omoto@alpha.math.wsu.edu; FAX: 509-335-1907. More information about the university can be obtained at <http://www.wsu.edu>.

Washington State University is an Equal Opportunity/Affirmative Action Employer and Employer. Protected group members encouraged to apply.

ASSISTANT/ASSOCIATE PROFESSOR. The Department of Biochemistry, Robert Wood Johnson Medical School, seeks Ph.D. biochemist or molecular biologist for an Assistant/Associate Professor position. Applicants must have 1) extensive and documented experience in organizing and developing a medical school biochemistry course; 2) expertise in teaching a variety of medically related biochemistry topics; and 3) the ability to develop a fundable research program. Please send curriculum vitae, reprints, and arrange to have three to four letters sent to: **Dr. Masayori Inouye, Professor and Chairman, Department of Biochemistry, Robert Wood Johnson Medical School, 675 Hoes Lane, Piscataway, NJ 08854-5635.** *UMDNJ is an Affirmative Action/Equal Opportunity Employer, Male/Female/Disabled/Veteran, and a member of the University Health System of New Jersey.*

The Biology Department of Gannon University is seeking an **ASSISTANT PROFESSOR** to teach human anatomy. Additional courses may include a combination of anatomy and physiology, freshman biology, physiology, neurobiology, and a course in area of expertise. Candidates must have earned a Ph.D. and have formal preparation in human cadaver anatomy and a strong commitment to undergraduate teaching. Research in area of expertise will be encouraged. The position will remain open until filled. Proposed starting date: January 1, 1996. To apply, send letter of application, curriculum vitae, and three letters of recommendation to: **Biology Search Committee, Personnel Office, Gannon University, University Square, Erie, PA 16541.** Email inquiries: andersen_k@cluster.gannon.edu.



Monterey Bay Aquarium Research Institute

POST-DOCTORAL FELLOWSHIPS

*Applications are invited for Post-Doctoral Fellowships in the fields of:
Biological, chemical, or physical oceanography; marine geology; and
professional engineering disciplines supporting oceanographic research.*

Founded in 1987 by David Packard, MBARI is a non-profit, private oceanographic research institute, uniquely dedicated to the development of state-of-the-art equipment, instrumentation, systems and methods for scientific research in the deep waters of the ocean. Located in Moss Landing, CA, the heart of the nation's largest marine sanctuary, MBARI places a balanced emphasis on science and engineering, with established programs in remotely operated vehicle (ROV) control technology, ocean physics, chemistry, geology, and biology, as well as information management, acoustics, and ocean instrumentation research and development.

MBARI's newly established centralized research center in Moss Landing includes award winning science and engineering laboratories. Additionally, MBARI is anticipating the early 1996 delivery of its new SWATH research vessel, the *Western Flyer*, and the deployment of a technologically advanced ROV, taking unique research capabilities to depths of 4,000 meters. To glimpse MBARI's current activities, please visit our Home Page on the World Wide Web:

<http://www.mbari.org>

Applications should be from recent Ph.D. recipients, or 1996 degree candidates, and they will be accepted until **January 15, 1996**. Applications must include: A Curriculum Vitae, at least three professional references, a succinct description of the applicant's doctoral research, and a concise statement of the applicant's research interests including the nature of the research project to be pursued at MBARI. Awards will be announced in Mid-March of 1996, and they are for up to one year, with renewal for a second year based upon funding and successful accomplishment.

Please address applications to: PFP-96/sci, MBARI, P.O. Box 628, Moss Landing CA 95039. Fellowships may require occasional trips to sea.

MBARI welcomes diversity. EOE

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At Astra Merck, we're revolutionizing the pharmaceutical industry by partnering with our customers to develop and deliver customized healthcare solutions. Our organizational structure is designed to effectively market current products and to expedite the development and introduction of new products in the United States. Astra Merck is committed to attracting and training outstanding people to join our empowered, cross-functional business teams. Ideal applicants will have advanced degrees (M.B.A.s, Ph.D.s, Pharm.D.s, M.D.s) in various disciplines (Business, Marketing, Human Resources, Computer or Information Sciences, the Sciences) and prior experience within the pharmaceutical industry. For consideration for both field and headquarter positions, please forward your resume to **Human Resources Department, Astra Merck, 725 Chesterbrook Boulevard, Wayne, PA 19087**. We are an equal opportunity employer, M/F/D/V.



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CHAIRPERSON, DEPARTMENT OF PHYSIOLOGY AND HEALTH SCIENCE

Ball State University
Muncie, Indiana

Ball State University is seeking applicants for a tenure-track position as Chairperson of the Department of Physiology and Health Science. The Department is one of twenty-four units in the College of Sciences and Humanities. Currently the Department offers undergraduate and graduate degrees in school health, community health, and physiology; associate degrees in emergency medical services, nuclear medicine, respiratory therapy, radiation therapy, and radiology. There are 15 health science faculty and 6 anatomy/physiology faculty and 12 graduate assistants within the department. Minimum qualifications: earned doctorate in one of the disciplines represented in the department; evidence of scholarly and professional achievement; demonstrated successful experience in higher education, administration, and teaching; ability to communicate effectively; overall qualifications that will merit a faculty appointment of associate or full professor rank in the Department. Preferred qualifications: record of success in research and in obtaining external support for scholarly activities; national visibility within the profession; understanding of fiscal management in higher education; record of success in curriculum development; and a MPH and CHES for those in health education and post-doctoral training for those in anatomy/physiology. Tenure may be granted by the Department if exceptional accomplishments can be demonstrated for past work. Salary is competitive and commensurate with rank and experience. Review of applications will begin February 15, 1996, and continue until the position is filled. Send application letter, complete curriculum vitae and names, addresses and telephone numbers of five references to: Chair, Search Committee for the Chairperson, Department of Physiology and Health Science, Ball State University, Muncie, IN 47306.

Ball State University is an Equal Opportunity, Affirmative Action Employer and is strongly and actively committed to diversity within its community.

o f d i s c o v e r y

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The team player we seek will perform research feasibility, testing and experimental design of new reagent systems in the area of enzyme immunoassay (EIA) research and development. You must possess a Bachelor's or Master's degree in a Life Science and have 4-6 years experience dealing with EIA's on a daily basis. Experience with adaptation of EIAs to automated instrumentation and experience in product support and troubleshooting of manufacturing problems are desired.

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POSITIONS OPEN

ASSISTANT PROFESSOR. Life Sciences, two positions: Washington State University: tenure-track, start August 16, 1996. Position 1) Ecology; position 2) Physiology/Biochem. Ph.D. in appropriate discipline required by 8/16/96. Ability to conduct innovative, externally funded research program and effectively teach upper-division and graduate courses also required. Substantial, published research, postdoctoral research, and (for position 1) research potentially relevant to the Pacific NW preferred. Position 1 to teach Ecology and the Ecosystem and part of Human Ecology course. Position 2 to teach Mammalian Physiology, Biochemistry, and part of a Biological Methods lab course. Those hired will join the rapidly growing faculty at the new 348 acre Vancouver campus (Portland, Oregon metro area) and help develop the B.S. and M.S. degree programs. Letter of application, vita, statement of research plans, and three letters of reference to: **Dr. Martin Pall, Chair of the Ecology Search Committee or Chair of the Physiology/Biochemistry Search Committee, College of Sciences, Washington State University, Vancouver, WA 98663-3597. Telephone: 360-737-2038; Email: pall@vancouver.wsu.edu.** Screening to begin December 15, 1995. *WSU is an Equal Opportunity/Affirmative Action Educator and Employer. Members of protected groups are encouraged to apply.*

INSTRUCTOR or ASSISTANT PROFESSOR—Molecular Biology. Drury College, Biology Department, seeks an individual with a Ph.D. in the area of molecular biology for a tenure-track position. Teaching excellence is essential. Teaching responsibilities include genetics, molecular biology, general biology, and courses offered by the Division of Science and Mathematics for non-science majors. The individual in this position will supervise undergraduate research projects in area of expertise. Send letter, curriculum vitae, and names of references to: **Dr. Barbara Wing, Chair, Department of Biology, Drury College, 900 North Benton Avenue, Springfield, MO 65802. FAX: 417-865-3183; Email: bwing@lib.drury.edu.** Review of applications begins on December 1, 1995. *Drury is an Equal Opportunity Employer. Minorities and women are especially encouraged to apply.*

INVERTEBRATE BIOLOGIST

The Department of Biological Sciences at DePauw University invites applications for a tenure-track position beginning August 1, 1996, at the **ASSISTANT PROFESSOR** level, but will consider applicants at the **ASSOCIATE PROFESSOR** level. The candidate should have completed a Ph.D. and be prepared to teach introduction to animal biology, a course in animal physiology, and an advanced class with an emphasis on invertebrates. DePauw is a liberal arts institution dedicated to involving undergraduates in research, therefore development of a research program suitable for undergraduates is expected. Review of applications will begin December 1, 1995. Applicants should send a copy of their curriculum vitae, a statement of teaching and research interests, and the names, addresses, telephone numbers, and Email addresses of three references to: **Search Committee, Department of Biological Sciences, DePauw University, Greencastle, IN 46135.** *Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.*

COMPUTATIONAL NEUROBIOLOGIST

The Biology Department at Emory University seeks a neurobiologist who combines computational with strong experimental approaches toward understanding neural systems. All applicants will be carefully reviewed; however, some preference will be given to individuals working with invertebrate model systems. The appointment is at the **ASSISTANT PROFESSOR** level, although an appointment at a higher rank will be considered in exceptional circumstances. Applicants should have two years or more of postdoctoral research experience and provide evidence that they will develop a strong, independent research program. It is anticipated that the appointee will participate in the interdepartmental Graduate Program in Neuroscience of the Graduate Division of Biological and Biomedical Sciences and will have teaching responsibilities at the undergraduate level. Please send a curriculum vitae, reprints of publications, a clear statement of future research plans, and three letters of recommendation to: **Neurobiology Search Committee, Department of Biology, Emory University, 1510 Clifton Road, Atlanta, GA 30322. Telephone: 404-727-4234; FAX: 404-727-2880; Email: neuro_srch@biology.emory.edu.** Review of completed applications will begin on January 3, 1996. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

The University of St. Thomas Department of Biology in St. Paul, Minnesota seeks applicants for two **TENURE-TRACK** and two **LIMITED TERM** positions to begin September 1, 1996. 1) A tenure-track plant ecologist to teach an intermediate level course in ecology, an advanced course and majors' course in population biology; 2) a tenure-track neurobiologist to teach intermediate courses in neurobiology, comparative anatomy, and a majors' course in organismal biology; 3) a limited-term position to teach plant biology, an advanced plant course, and majors' course in organismal biology; 4) a limited-term position to teach microbiology, human biology, and an interdisciplinary science education course.

Candidates must have a doctoral degree, postdoctoral teaching and/or research experience, and a strong commitment to undergraduate teaching in a liberal arts setting. Tenure-track faculty are expected to establish a vigorous, independent research program that will involve undergraduates.

Send letter of application identifying the position(s) for which you are applying, curriculum vitae, statements of teaching philosophy and research interests including possibilities for student involvement, and three letters of recommendation by January 5, 1996, to: **Ms. Carol Felton, Mail Number 5031, 2115 Summit Avenue, Saint Paul, MN 55105.**

The University of St. Thomas is a private, Catholic, comprehensive, liberal arts University with a student body in excess of 10,000. Of that number, 5,000 are in the undergraduate program and 5,000 in five graduate schools. *The University is an Equal Opportunity Employer and is committed to a program of Affirmative Action. Women and persons of color are strongly encouraged to apply.*

ENVIRONMENTAL SCIENTIST/ENGINEER

The Department of Environmental Studies at Baylor University seeks candidates for an advanced **ASSISTANT PROFESSOR** or **ASSOCIATE PROFESSOR** level faculty appointment. The preferred candidate will have a biological and/or chemical process orientation with interest and experience in a combination of research, teaching, and applied environmental problem-solving. There is a preference for concentration on air quality issues, but candidates with other interests, including renewable energy and environmental biotechnology, are encouraged to apply.

Initial applications should include a detailed letter of interest, a curriculum vitae, and names of at least three references. Direct inquiries and applications to: **Dr. Dudley J. Burton, Chair, Department of Environmental Studies, Baylor University, P.O. Box 97266, Waco, TX 76798-7266. Telephone: 817-755-3405; FAX: 817-755-3409; Email: dudley_burton@baylor.edu.** Application closing date is January 1, 1996.

Baylor is a Baptist university affiliated with the Baptist General Convention of Texas. As an Affirmative Action/Equal Opportunity Employer, Baylor encourages minorities, women, veterans, and persons with disabilities to apply.

ECOLOGIST

The Biology Department at Emory University invites applications for a tenure-track position in evolutionary ecology. All applicants will be carefully reviewed; however, preference will be given to individuals who use an experimental field approach to testing ecological/evolutionary theory. The appointment is at the **ASSISTANT PROFESSOR** level, although an appointment at a higher rank will be considered in exceptional circumstances. Applicants should have two years or more of postdoctoral research experience and provide evidence that they will develop a strong, independent research program. It is anticipated that the appointee will participate in a newly established interdepartmental Graduate Program in Population Biology, Ecology and Evolution of the Graduate Division of Biological and Biomedical Sciences and will have teaching responsibilities at the undergraduate level. Please send a curriculum vitae, reprints of publications, a clear statement of future research plans, and three letters of recommendation to: **Ecology Search Committee, Department of Biology, Emory University, 1510 Clifton Road, Atlanta, GA 30322. Telephone: 404-727-4234; FAX: 404-727-2880; Email: ecology_srch@biology.emory.edu.** Review of completed applications will begin on January 3, 1996. *Emory University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

TENURE-TRACK ASSISTANT/ASSOCIATE PROFESSOR

Juneau Center, School of Fisheries and Ocean Sciences, University of Alaska Fairbanks

The Fisheries Division seeks in the area of quantitative management of renewable aquatic resources. The successful applicant will join a vigorous group of fisheries faculty and students in Juneau. The position requires an earned doctorate in fisheries or related scientific field, demonstrated formal training in quantitative disciplines, capability or experience in university teaching, and demonstrated excellence in research related to renewable aquatic resources. The appointment will include development of a formal research program; teaching, student advising and curriculum development, primarily at the graduate level; and work with management agencies and other user groups. Duties in these areas will emphasize quantitative and biometrical methodology applicable to Alaskan renewable aquatic resources. Research areas sought include quantitative methods and models for decision-making; assessment and management of fish populations; evaluation of fishery management measures and effects; and incorporation of fisheries oceanography, multi-species interactions, and biological parameters into management models.

Applications should include a statement of interest, curriculum vitae, and the names of three references, and be received by January 15, 1996. Address inquiries and applications to: **Search Committee, O. A. Mathisen/A. J. Gharrett, Co-chairs, University of Alaska Fairbanks, Juneau Center, SFOS, 11120 Glacier Highway, Juneau, AK 99801-8677. Telephone: 907-465-6441; FAX: 907-465-6447; Email: ffoam@acad1.alaska.edu.**

The University of Alaska is an Equal Opportunity/Affirmative Action Employer and Educational institution. Your application for employment with the University of Alaska may be subject to public disclosure under the Alaska Public Records Act.

CHEMICAL SENSES University of Colorado Medical School

The Department of Cellular and Structural Biology invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level (exceptional, more senior candidates will be considered). Qualified candidates will have an M.D. or Ph.D. degree and use cellular or molecular techniques to investigate the neurobiology or development of chemosensory systems. They will be expected to develop an outstanding research program and to participate in teaching. Send curriculum vitae, a one-page statement of research interests, and names and addresses of three references to: **Dr. Thomas E. Finger, Department CSB-SC, UCHSC, B-111, 4200 East Ninth Avenue, Denver, CO 80262.** Review of applications begins November 17, 1995, and will continue until the position is filled. *The University of Colorado Health Sciences Center is committed to Equal Employment Opportunity/Affirmative Action.*

BIOLOGY

Animal Ecologist. Tenure-track, **ASSISTANT PROFESSOR**, begin fall 1996 in Biology Department at Colorado College. Responsibilities include teaching ecology and vertebrate zoology and development of a field-oriented research program involving undergraduates. Ability to teach population genetics desirable. Ph.D. required. See the October 20, 1995 issue of *Science*, Vol. 270, page 530 for the full announcement.

Youngstown State University (YSU). ASSISTANT/ASSOCIATE PROFESSOR. Tenure-track rank. Will serve as Director of the Center for Environmental Studies, teaching environmental courses, research, and community outreach. Fall 1996. Ph.D. required. Nine-month salary: \$32,000 to \$44,000. Send résumé, transcripts, and names of three references to: **Dr. Lauren Schroeder, Youngstown State University, Youngstown, OH 44555.** Review of applications will begin on December 18, 1995. *YSU is an Affirmative Action/Equal Opportunity Employer; minorities and women are encouraged to apply.*

Marine Biochemist, ASSISTANT PROFESSOR (tenure-track) beginning August 1996. Duties include: teach core course in Biochemistry, specialty course, maintain active research program, and direct graduate students. Ph.D. with postdoctoral experience required. Send curriculum vitae, research and teaching interests, graduate transcripts, selected reprints, and names of three references to: **Dr. Joseph Pawlik-Biochemist Search, Department of Biological Sciences, University of North Carolina, Wilmington, NC 28403-3297** by 1 February 1996. *Affirmative Action/Equal Opportunity Employer.*

**ATCC
PROGRAM DIRECTOR AND
RESEARCH SCIENTIST FOR BACTERIOLOGY**

The American Type Culture Collection (ATCC), a global bioscience organization and leading germplasm resource for intellectual and economic development, is seeking a dynamic individual to direct scientific research and manage the Bacteriology Program. This program maintains the world's most comprehensive collection of bacteria and bacteriophages and deals with all facets of microbial science and technology in the United States and abroad.

In 1997, the ATCC will relocate its operations to a modern, custom-designed facility on the campus of George Mason University's Prince William Institute in Virginia. This move will provide the expanded infrastructure the ATCC needs to continue its tradition of service and research to the scientific community.

This individual will be expected to provide scientific, technical, fiscal, and strategic leadership in the organization, to manage and develop the collection of bacteria and to undertake extramurally funded research. Candidates must possess a relevant doctoral degree with appropriate professional experience and a record of obtaining external funding.

Interested candidates should submit a comprehensive curriculum vitae, including salary history and at least three current references by December 31, 1995, to: **ATCC, Human Resources, 12301 Parklawn Drive, Rockville, MD 20852.**

EEO
M/F/D/V

**Minority Fellowships in Neuroscience
Doctoral Fellowships
Postdoctoral Fellowships**

Benefits

- Financial support for up to a period of either three years (doctoral) or two years (postdoctoral)
- Summer Training in Neuroscience and Survival Skills at the Marine Biological Laboratory in Woods Hole, MA
- Travel to prospective training sites
- Partial travel support to the Society for Neuroscience meeting

Eligibility

- American citizenship or permanent visa residency; and
- Enrollment in a full-time doctoral program in neuroscience

An additional important factor for selection is that applicants be member of an underrepresented minority group, including but not limited to African Americans, Alaskan Natives, American Indians, Mexican Americans, Pacific Islanders, and Puerto Ricans.

Application

For the doctoral program applications are now being accepted and must be received by January 15, 1996. For the postdoctoral program applications are due January 15, 1996. Funding is provided by the National Institute of Mental Health. This program is administered by the American Psychological Association and the Association of Neuroscience Departments and Programs.

For Information Write:

**The American Psychological Association
Minority Fellowship Program/Neuroscience
750 First Street, N.E.
Washington, D.C. 20002-4242
(202) 336-6027
Internet: mfp@apa.org**

**Scripps Institution of Oceanography
Center for Clouds, Chemistry, and Climate**

Scripps Institution of Oceanography (SIO) at the University of California, San Diego (UCSD) invites applications for appointment to a research position in the area of atmospheric chemistry.

The research appointments parallel University of California faculty appointments, but are without teaching requirements. For this atmospheric chemistry position applications for the appointment at assistant, associate, or full research scientist will be considered. Salary is commensurate with experience and based on the University of California salary scale. Partial salary support will be provided from various sources subject to availability of funds.

Candidates must hold a Ph.D and have demonstrated their ability to conduct high quality research. Research area may include chemistry of tropospheric gases and aerosols, with an emphasis on atmospheric observations. The successful candidate will be expected to establish an extramurally funded research program and to involve SIO graduate students. There will be opportunities to interact with an international and interdisciplinary group of researchers in clouds and climate, and to participate in on-going field experiments involving aircraft, ships, and surface observations.

Closing date is January 31, 1996. Applicants should send a curriculum vitae, selected reprints, a list of at least three references and a brief statement of research interests to:

**V. Ramanathan, Director
Center for Clouds, Chemistry, and Climate
Scripps Institution of Oceanography
University of California, San Diego
9500 Gilman Drive
Mail Code 0239
La Jolla, CA 92093-0239**

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**FRED
HUTCHINSON
CANCER
RESEARCH
CENTER**

POSTDOCTORAL POSITIONS

Fred Hutchinson Cancer Research Center

Postdoctoral positions are available in Basic Sciences and Molecular Medicine for candidates with research interests in cellular, developmental and molecular biology, genetics, immunology and virology with emphasis on applications to the cancer problem. Applications from women and minority groups are strongly encouraged. Please send curriculum vitae, brief description of research background and names and addresses of three references to:

**Associate Director, Division of Basic Sciences
Fred Hutchinson Cancer Research Center
B1-030
1124 Columbia Street
Seattle, WA 98104**

Fred Hutchinson Cancer Research Center provides a smoke-free environment.

The Fred Hutchinson Cancer Research Center is an Equal Opportunity/ Affirmative Action Employer. M/F/H.

POSITIONS OPEN

ASSISTANT PROFESSOR

ASSISTANT PROFESSOR in the Department of Plant, Soil and Insect Sciences. Biological control of plants and insects. Nine-month, tenure-track appointment with three-month summer salary contingent upon service to Wyoming Weed and Pest Council. Ph.D. in entomology, or other discipline related to biological control, focusing on the control of plants and insects. Postdoctoral experience preferred. Individual will apply fundamentals of biological control to undesirable plants and insects of importance to Wyoming. Will continue ongoing cooperative research with state and federal pest management programs. Will direct programs of graduate study, will teach a course in principles of biological control. Will collaborate in teaching course in sustainable resource management. Will interact with Wyoming Weed and Pest Council and USDA-APHIS. Full position description available upon request. Send letter of application with statement of interest, résumé, transcripts of all university training (facsimiles acceptable), and names, telephone numbers, and addresses of three references to: **Dr. J. E. Lloyd, Chair, Search Committee, Department of Plant Soil and Insect Sciences, Box 3354 University Station, University of Wyoming, Laramie, WY 82071.** Applications accepted through February 5, 1996. Position available spring of 1996.

The University of Wyoming is an Equal Opportunity/Affirmative Action Institution.

ASSISTANT/ASSOCIATE PROFESSOR ENVIRONMENTAL HEALTH SCIENCES

The Division of Physiology in the Johns Hopkins University School of Hygiene and Public Health invites applications for a tenure-track **FACULTY POSITION**. Applicants must have a Ph.D. or M.D. with postdoctoral training. The faculty currently has strong interests in pulmonary physiology with an emphasis on inflammatory processes and environmental pathologies. We seek an individual with expertise and research interests in histopathology, morphology, or immunocytochemistry. Applicants will be expected to establish their own independent research program with extramural funding, collaborate with existing faculty, and contribute to the teaching of graduate students and fellows. Interested applicants should send their curriculum vitae and names of three references to: **Dr. Wayne Mitzner, School of Hygiene and Public Health, 615 North Wolfe Street, Baltimore, MD 21205.** An Equal Opportunity Employer.

ASSISTANT PROFESSOR of Biology—Tenure-track position for a Ph.D. physiologist to begin August 1996. Teaching experience is required. Teaching responsibilities will include upper-division vertebrate physiology with lab, anatomy and physiology for Allied Health students, and possibly neuroscience. Experience with use of microcomputers in teaching lab is desirable. Development of a physiology research program involving undergraduates is expected. Xavier University is a Jesuit University with an emphasis on quality teaching at the undergraduate level. Applicant must send a letter of application with curriculum vitae, copies of transcripts, and three letters of recommendation to: **Dr. Linda Finke, Biology Department, Xavier University, 3800 Victory Parkway, Cincinnati, OH 45207-4331.** Deadline for completed application is January 5, 1996. Xavier University is an Equal Opportunity/Affirmative Action Employer.

The Department of Anatomy of the University of Arkansas for Medical Sciences (UAMS), which has a strong emphasis on neuroscience, is seeking qualified applicants for a tenure-track position at the rank of **ASSISTANT or ASSOCIATE PROFESSOR**. Candidates for Associate Professor must have current research funding and have demonstrated research productivity. Responsibilities include development or continuation of independent research support; participation in medical and graduate school teaching; and training of pre- and postdoctoral scientists. Preferred research areas include interactions between the nervous system and the immune system or extracellular matrix in the CNS. Submit curriculum vitae (including a statement of research interests and teaching experience) and a list of three references to: **Dr. S. A. Gilmore, Professor and Chairman, Department of Anatomy (510), University of Arkansas for Medical Sciences, 4301 West Markham Street, Little Rock, AR 72205-7199.** Telephone: 501-686-5198; FAX: 501-686-6382. UAMS is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

IMMUNOGENETICIST

The University of Puget Sound Biology Department seeks an **ASSISTANT PROFESSOR** for a tenure-track position (to begin Fall Term 1996) to teach lectures and labs for a one-semester junior-level course in genetics and an upper-level elective course in immunology. Duties will also include teaching introductory biology for majors or non-majors. Faculty are expected to establish a research program that involves undergraduates. Ph.D. required; postdoctoral experience preferred. Candidates should submit interest letter (including statements of teaching and research interests), curriculum vitae, and three reference letters that evaluate teaching and research, to be postmarked by extended closing date November 30, 1995, to: **Biology Search, University of Puget Sound, P.O. Box 7297, Tacoma, WA 98407.** An Equal Opportunity/Affirmative Action Employer.

HUMAN PHYSIOLOGY Ball State University Muncie, Indiana

The Department of Physiology and Health Science is seeking applicants for a tenure-track position as an **ASSISTANT PROFESSOR** in human physiology beginning August 23, 1996. Primary responsibilities for this position include teaching, scholarly activity, and service. Teaching responsibilities will include general human physiology and at least two of the following upper-level/graduate courses: cardiovascular physiology, neuroscience, pathophysiology, physiology of aging, or research techniques in physiology. The successful candidate will be expected to conduct an active research program that should include undergraduate and Master's level students. Minimum qualifications: an earned doctorate in physiology or related field; at least one year of successful experience teaching at the college or university level. Preferred qualifications: relevant postdoctoral training and/or research participation. Salary for the position will be commensurate with rank and experience. Tenure is not automatic but depends on meeting performance criteria. Review of applications will begin February 15, 1996, and will continue until the position is filled. Send application letter including description of teaching and research interests, curriculum vitae, undergraduate and graduate transcripts, and three letters of recommendation for the position to: **Dr. Larry Ganion, Chairperson, Search Committee, Department of Physiology and Health Science, Ball State University, Muncie, IN 47306.**

Ball State University is an Equal Opportunity, Affirmative Action Employer and is strongly and actively committed to diversity within its community.

ASSISTANT PROFESSOR STRUCTURAL BIOLOGY

Applications are invited for a **TENURE-TRACK** junior faculty appointment in the Department of Structural Biology, Stanford University School of Medicine. Candidates should have expertise and a commitment to future research in the general area of experimental structural and biophysical studies of macromolecular systems. Applicants should send a curriculum vitae, description of research interests, and representative reprints, and should arrange to have three letters of recommendation forwarded to:

**Chairman of the Faculty Search Committee
Department of Structural Biology
Stanford University School of Medicine
Fairchild Science Building
Stanford, CA 94305-5400**

Evaluation of applications will begin on December 31, 1995; applications received after this date may not receive full consideration. *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

ASSISTANT/POSTDOCTORAL

A molecular geneticist at **ASSISTANT PROFESSOR or POSTDOCTORAL** level. To oversee research into genetics of human disease. A Ph.D. in genetics, molecular biology, or related discipline required. Must have experience in chromosomal mapping, gene cloning techniques. Attractive salary. Fax résumé to: **S. Bhasin, Drew/UCLA School of Medicine. FAX: 213-563-9352.**

POSITIONS OPEN

MEDICAL DIRECTOR FOR RESEARCH

A Medical Director for Research with a strong, independent research program is sought for the integrated veterans healthcare facilities in Temple, Waco, Austin, and Marlin, Texas. An ideal applicant would be a creative, experienced scientist with an M.D. and/or Ph.D., have an established research program, have demonstrated experience with federal funding, and a genuine interest in stimulating programmatic research activities and in building an active research group. The area of research expertise is open. The successful candidate should be eligible for an appointment at the level of **ASSOCIATE or FULL PROFESSOR** in the appropriate clinical or basic science department of Texas A&M University Health Science Center. Applications and nominations will be accepted until the position is filled. Applicants should send a curriculum vitae, a letter describing research interests and goals, and the names and addresses of three references to:

**James R. West, Ph.D.
Chair, Search Committee
Professor and Head
Department of Human Anatomy and
Medical Neurobiology
College of Medicine
Health Science Center
Texas A&M University
College Station, TX 77802-1114**

The Department of Veterans Affairs and Texas A&M University are Equal Opportunity/Affirmative Action Employers.

NEUROBIOLOGY/ANIMAL PHYSIOLOGY PROKARYOTIC MICROBIOLOGY

The Biology Department of Santa Clara University invites applications to fill two tenure-track positions at the **ASSISTANT PROFESSOR** level beginning September 1, 1996. One is in neurobiology, animal physiology, endocrinology, or related fields; the other is in prokaryotic microbiology. Applicants working at the cellular and molecular level are encouraged to apply. Applicants must have a Ph.D. and at least two years of postdoctoral experience. Previous teaching experience is preferred. The successful candidate will develop a strong research program that will allow undergraduates to participate. The Department of Biology is one of the largest in the College of Arts and Sciences. The University stresses a strong liberal arts curriculum and emphasizes excellence in both teaching and research.

Applicants must submit a curriculum vitae, a brief description of future research and teaching plans, and three letters of recommendation to: **Dr. David Tauck, Chair, Search Committee, Biology Department, Santa Clara University, Santa Clara, CA 95053.** Application deadline extended to December 1, 1995. *Santa Clara University, a Jesuit Institution and an Equal Opportunity/Affirmative Action Employer, welcomes applications from women and persons of color.*

ASSISTANT/ASSOCIATE PROFESSOR Microbiology

The Department of Microbiology and Immunology of the University of North Texas Health Science Center at Fort Worth (UNTHSC-FW) is seeking applicants for a faculty position at the level of **ASSISTANT or ASSOCIATE PROFESSOR**. Applicants must develop or already have established an independent research program in molecular biology. Candidates with expertise in virology are especially encouraged to apply. Selected candidates must also have outstanding teaching skills and will participate in a team-taught course in medical microbiology and immunology for medical students as well as in teaching graduate students. UNTHSC-FW is a state-supported institution housed in new, well-equipped facilities, and is affiliated with the University of North Texas. Send curriculum vitae, a summary of research interests and goals, and three letters of recommendation by January 15, 1996, to: **Dr. Jerry Simecka, Search Committee Chairman, Department of Microbiology and Immunology, University of North Texas Health Science Center, 3500 Camp Bowie Boulevard, Fort Worth, TX 76107-2669.** An Equal Opportunity/Affirmative Action Employer and Educator.

**POSITION OPENING
THE UNIVERSITY OF
CALIFORNIA, IRVINE
SCHOOL OF
BIOLOGICAL SCIENCES
DEPARTMENT OF MOLECULAR
BIOLOGY AND BIOCHEMISTRY
Assistant/Associate Professor in
STRUCTURAL BIOLOGY -
Tenure-Track**

UCI's School of Biological Sciences has 75 full-time faculty members conducting innovative research in areas such as molecular, cellular and developmental biology, neurobiology, biochemistry, genetics, ecology and evolutionary biology. Together with the basic science departments of the College of Medicine, we operate several well regarded graduate programs. The successful candidate for this position will have a background in macromolecular crystallography in the study of fundamental biological problems. Facilities at UCI include high field NMR, state-of-the-art x-ray diffraction equipment, and excellent computing facilities including access to the UCSD Super Computing Center. We require selected candidates to develop and maintain active research programs and to participate in undergraduate and graduate teaching. Submit a curriculum vitae, a description of previous and planned research, a statement of teaching experience, and the names and addresses of three referees to: **Dr. Thomas Poulos, Department of Molecular Biology and Biochemistry, UCI, Irvine, CA 92717-3900.** DEADLINE: December 15, 1995. *We are an equal opportunity employer committed to excellence through diversity.*

**Developmental Biologist
Department of Organismic and
Evolutionary Biology
Harvard University**

The Department of Organismic and Evolutionary Biology seeks to make an appointment of a developmental biologist whose work is based on a solid theoretical foundation of evolutionary comparative biology of animals and who has a proven track record in the application of environmental/molecular approaches. The appointment will be to either a tenured professorship or a non-tenured assistant/associate professorship, depending on qualifications and experience. We are interested in individuals whose research experience and interest bridge Harvard's current strength in evolution and molecular biology.

Applicants should submit, by January 15, 1996, a curriculum vitae, a statement of research and teaching interests, and the names and addresses of three references to:

**Professor Karel F. Liem, Chair
Developmental Biology
Search Committee
Museum of Comparative Zoology
Harvard University
26 Oxford Street
Cambridge, MA 02138**

Harvard University is an Affirmative Action/Equal Opportunity Employer. We encourage applications from women and minority candidates.

**DIRECTOR
Research Animal Resource Center
Memorial Sloan-Kettering Cancer Center
and the
Cornell University Medical College**

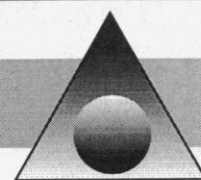
The Memorial Sloan-Kettering Cancer Center (MSK) and the Cornell University Medical College (CUMC) are seeking a Director for their jointly-operated Research Animal Resource Center (RARC) which encompasses approximately \$5,000 NSF with an average daily census of more than 32,000 animals. The Director of RARC has direct responsibility for managing an AAALAC-accredited program of laboratory animal care and use that complies with all federal, state and local animal welfare regulations. The Director serves as the chief veterinarian for both institutions and has MSK/CUMC-wide responsibility for the development, recommendation and implementation of policies regarding the care and management of research animals.

Responsibilities include supervising two veterinarians and approximately 29 managerial and associated support staff members in the General Animal Facilities and Animal Health Divisions who provide clinical care, post-operative care, anatomic and clinical pathology services, and related professional services. The annual budget of RARC exceeds \$2.5M.

Candidates must have either the DVM or VMD from a recognized school of veterinary medicine; must be Board certified by the American College of Laboratory Animal Medicine and must have approximately 10 years of significant administrative experience (including personnel and budget management) in the care and managing of research animals; should have research experience.

Individuals should submit a letter of interest, a curriculum vitae, and the names of three references to: **Senior Vice President, Memorial Sloan-Kettering Cancer Center, Room 1308H, 1275 York Avenue, New York, NY 10021.**

Memorial Sloan-Kettering Cancer Center and the Cornell University Medical College are committed to the policy that all persons shall have equal access to its programs, facilities and employment without regard to race, color, creed, religion, national origin, sex, age, marital status, disability, public assistance status, veteran status, or sexual orientation.



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At Promega Corporation, we're proud to be different. We've built a successful international business with branch offices in the United Kingdom, the Netherlands, France, Australia, Switzerland and Japan, two joint ventures in the People's Republic of China, and a distributor network in nearly 40 countries, by offering our employees a challenging work environment that preserves the balance between work and life activities.

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We take our responsibilities to our customers in the scientific community seriously. Each day, Promega employees strive to meet or exceed the quality and customer service standards for which we are known worldwide. In order to continue to successfully service our global customer base, we need you and your ideas, opinions, values and interests.

If you're interested in joining a company that is proud to stand out as "different," that encourages the open expression of diverse opinions, then check into Promega. For additional career information, call our Career Opportunities Line at 800-356-9526. (Outside U.S., call 608-277-2539). To learn more about our products and our company, visit our homepage at <http://www.promega.com>.

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● Promega is an affirmative action/equal opportunity employer.



Promega

POSITIONS OPEN

ENVIRONMENTAL STUDIES

A **TENURE-TRACK POSITION**, available August 1, 1996 for an individual with interdisciplinary teaching and research interests in any area of environmental studies and sustainable development. The Environmental Science Department at Allegheny began as a formal program in 1971 and has grown to include two major tracks (Studies and Science) and a faculty whose teaching and research interests span the natural sciences, social sciences, and humanities. Teaching responsibilities include participation in a team-taught introductory course, a sophomore course in environmental problem solving, a junior-level seminar in the candidate's area of expertise, and directing senior research projects. We seek a colleague who will encourage interdisciplinary connections within the ES Department and with other departments at the College. Send curriculum vitae, statements of teaching and research interests, and three letters of reference by December 18, 1995 to: **Dr. Scott Wissinger, Chair, Department of Environmental Science, Allegheny College, Meadville, PA 16335.** Women and minorities are strongly encouraged to apply. Allegheny is an Equal Opportunity Employer.

MOLECULAR/CELLULAR BIOLOGY UNIVERSITY OF VIRGINIA

The Department of Biology at the University of Virginia invites applications for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. We are seeking a researcher of exceptional promise who uses molecular, genetic, and/or biophysical approaches to investigate fundamental questions in biology. Candidates who would contribute to existing departmental strengths in cellular, molecular and developmental biology, neurobiology/behavior, evolution or plant biology are desired. Applicants should submit curriculum vitae, a summary of past accomplishments, a description of future research plans and teaching interests, and should arrange for three letters of reference to be sent to: **Molecular/Cellular Biology Search Committee, Department of Biology, Gilmer Hall, University of Virginia, Charlottesville, VA 22903-2477.** Screening of applications will begin immediately. The University of Virginia is an Equal Opportunity/Affirmative Action Employer. Women and members of minority groups are encouraged to apply and to identify themselves.

MICROBIOLOGIST

A **TENURE-TRACK POSITION** will be available August 1, 1996. Teaching duties include participation in the introductory biology sequence, an upper-level course in microbiology, a seminar in microbiology or a related discipline, a non-majors course, and directing student research projects. While this is primarily a teaching position, development of an active research program involving undergraduates is expected. Excellent research and teaching facilities are available, as are start-up funds. We seek an individual with demonstrated excellence in teaching and research and a commitment to liberal arts education. Send curriculum vitae, statements of teaching and research interests, and three letters of reference to: **Dr. Glen Wurst, Chair, Biology Department, Allegheny College, Meadville, PA 16335** by January 2, 1996. Women and minorities are strongly encouraged to apply. Allegheny is an Equal Opportunity Employer.

BIOCHEMISTRY FACULTY POSITION Department of Chemistry University of Puerto Rico

The Rio Piedras Campus of the University of Puerto Rico seeks candidates for a tenure-track appointment at the **ASSISTANT PROFESSOR** level. This appointment can begin as early as August 1996 and will be in the area of biochemistry. Although a research emphasis in protein studies/enzyme action is desirable, other areas of research will be considered. Candidates should have postdoctoral experience. Applicants should clearly demonstrate the ability to establish a vigorous, internationally recognized research program, as well as a commitment to excellence in teaching. Applications, including a curriculum vitae and a description of research plans, should be submitted by January 15, 1996. Candidates should also arrange for at least three letters of recommendation to be sent to: **Professor Reginald Morales, Acting Chairman, Department of Chemistry, Rio Piedras Campus, University of Puerto Rico, P.O. Box 23346, San Juan, PR 00931-3346.** The University of Puerto Rico is an Equal Employment Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MOLECULAR BIOLOGIST

The Citadel invites applications for a tenure-track position (**ASSISTANT PROFESSOR**) for the fall 1996 semester. The Citadel is a nationally recognized, comprehensive military college. The student body includes 1900 full-time undergraduate cadets and over 2000 part-time graduate and undergraduate evening students. Applicants should have a Ph.D. in biology or a related field and should be committed to teaching and research in an undergraduate liberal arts institution. Primary responsibilities will include assisting in the continued development of offerings in molecular biology, teaching courses in microbiology, and participating in the department's introductory courses. The potential to develop a research program will be a key criterion. Please send a letter of application that includes a synopsis of teaching and research interests, curriculum vitae, selected reprints, and names, addresses, and telephone numbers of three references to: **Dr. B. J. Kelley, Department of Biology, The Citadel, Charleston, SC 29409.** Telephone: 803-953-2070. Application review will begin on January 15, 1996, and will continue until the appointment is made. The Citadel is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from minorities and women.

ASSISTANT/ASSOCIATE PROFESSOR BIOLOGY

The Division of Science, College of Liberal Arts, Florida Atlantic University at Broward invites applications for a tenure-track position beginning fall 1996, in the area of microbiology and molecular biology. The successful candidate will have a Ph.D. in the area, demonstrated excellence in college and university teaching, and will develop an active research program. Send curriculum vitae and three letters of reference to: **H. Jay Lyons, Ph.D., Search Committee Chair, College of Liberal Arts, Florida Atlantic University, 2912 College Avenue, Davie, FL 33314.** FAX: 954-236-1150. Applications must be received by January 15, 1996. Florida Atlantic University is an Equal Opportunity, Affirmative Action Employer.

POSTDOCTORAL POSITION to study the effect of Cystathionine B-Synthase mutations on human disease using yeast-based detection assay in population screening studies (see Kruger and Cox, *Hum. Mol. Gen.*, 4:1155-1161, 1995). Position is fully funded for three years. Applicants must possess expertise in recombinant DNA technology and PCR. Experience in yeast molecular genetics is also desirable. Send curriculum vitae and the names of three references to: **Dr. Warren Kruger, c/o Human Resources Department, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** E-mail: wd_kruger@FCCC.edu. Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATES

Positions are available for Ph.D.'s or M.D.'s to study ion channel-mediated regulation of smooth muscle contraction in vascular diseases. Patch-clamp/single cell calcium measurement/smooth muscle contraction studies/pharmacology. Curriculum vitae, three references, and description of research experience to: **Dr. Victoria M. Bolotina, Vascular Biology Unit, R408, Boston University Medical Center, 88 East Newton Street, Boston, MA 02118, USA.** FAX: 617-638-7263. Email: vbolotina@med-med1.bu.edu.

VASCULAR BIOLOGY Postdoctoral Fellows

A **POSTDOCTORAL POSITION** is available at the Gladstone Institutes in San Francisco to pursue structure/function studies of the receptors for MCP-1 and related chemokines. Methodology includes expression of receptors in *Xenopus* oocytes and mammalian cells, and the use of homologous recombination to genetically alter mice. Strong background in molecular biology is required. Address inquiries to: **H.R.-C95-063, P.O. Box 419100, San Francisco, CA 94141-9100.**

POSTDOCTORAL POSITION available for molecular biologist to join a project on expression and mutational analysis of transport enzymes in eukaryotic cells. Experience in recombinant technology and viral vectors required. Send curriculum vitae to: **Dr. G. Inesi, Professor and Chairman, Department of Biochemistry and Molecular Biology, University of Maryland at Baltimore, 108 North Greene Street, Baltimore, MD 21201.** Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Fullerene Based Nanotechnology Rice Center for Nanoscale Science and Technology

Two **POSTDOCTORAL POSITIONS** in experimental physics, chemistry and technology at the nanometer scale are available. Research areas include: 1) Synthesis of defect-free single-wall and multi-wall carbon nanotubes, both in bulk and as isolated individual tubes. 2) Developing a new generation of proximate probes (STM, AFM, electrochemical, biological) using individual nanotubes in a new tip technology. 3) Developing new coherent electron field emission sources using carbon nanotubes. One of the postdoctoral position may also involve a joint research project with the CNRS at the giant solar furnace in Odeillo, France for ~6-12 months to develop solar methods for production of fullerenes, metallofullerenes, and carbon nanotubes. The selected individuals will have backgrounds in chemical physics or related areas, be highly motivated, and will be expected to lead frontier efforts in these emerging technologies. Candidates should submit cover letter, curriculum vitae, and three letters of recommendation to: **Rice Center for Nanoscale Science and Technology, Prof. Richard Smalley, MS 100, Rice University, P. O. Box 1892, Houston, TX 77251.** Email: res@cnst.rice.edu. Rice University is an Equal Opportunity/Affirmative Action Employer.

THE OHIO STATE UNIVERSITY TWO POSITIONS

1) **POSTDOCTORAL POSITION** in molecular oncology. A postdoctoral fellowship with focus on molecular studies of nervous system tumors in kids. Solid background in neuroscience required; knowledge in molecular biology and protein biochemistry preferred. The successful applicant will work with two interactive laboratories on neuroscience and molecular oncology.

2) **RESEARCH SCIENTIST** to direct transgenic animal facility. We are seeking a scientific director for a new transgenic animal facility in The Ohio State University (OSU) Comprehensive Cancer Center. This person must possess M.S. or Ph.D. in molecular biology and/or developmental biology. Experience in transgenic animal production required.

Send résumé and names of three references to: **M. Sue O'Dorisio, M.D., Ph.D., Professor of Pediatrics, Department of Pediatrics, The Ohio State University, 700 Children's Drive, Columbus, OH 43205.**

The OSU is an Equal Opportunity Educator and Employer.

POSTDOCTORAL FELLOWSHIP GENE THERAPY

Research Institute for Genetic and Human Therapy (RIGHT) awards fellowships for young **SCIENTISTS**. The aim of the fellowship is to provide opportunities in gene therapy research under the direction of distinguished scientists.

RIGHT is an international research institute with significant presence in Europe and the United States. RIGHT is designing new therapeutic approaches against cancer and AIDS. Applicants should have a basic background in one or more of the following areas: molecular biology, cell biology, virology, and immunology. Applicants must hold a Ph.D. or M.D. degree.

To apply, please send your curriculum vitae with the names and addresses of three referees to: **Personnel Office, Research Institute for Genetic and Human Therapy, 7965 Cessna Avenue, Gaithersburg, MD 20879.**

A **POSTDOCTORAL POSITION** is available immediately to study signal transduction and AP-1 binding activity in the regulation of bFGF gene expression. A strong background in biochemistry and molecular biology is required. Please send curriculum vitae and three references to: **Yong J. Lee, Ph.D., Department of Radiation Oncology Research Laboratories (103-RST), William Beaumont Hospital, 3601 West Thirteen Mile Road, Royal Oak, MI 48073.** FAX: 810-551-2443. An Equal Opportunity Employer.

POSTDOCTORAL POSITION is available to study cardiovascular pharmacology of blood substitutes and endothelin. Experience in microsphere technique and biochemical pharmacology desirable. Please send curriculum vitae and three references to: **Dr. Anil Gulati, Department of Pharmacaceutics and Pharmacodynamics (M/C 865), University of Illinois at Chicago (UIC), 833 South Wood Street, Chicago, IL 60612.** FAX: 312-996-0098; Email: GULATI@uic.edu. UIC is an Affirmative Action/Equal Opportunity Employer.

TENURE-TRACK FACULTY POSITIONS AT CARB

PROTEIN STRUCTURE AND FUNCTION

The Center for Advanced Research in Biotechnology (CARB) is seeking to fill two tenure-track faculty positions in (1) the elucidation of molecular mechanisms in enzyme catalysis and (2) receptor-mediated signal transduction. Applicants using multidisciplinary approaches in biochemistry, structural and molecular biology are invited to apply. The successful candidates will be expected to develop strong, independent, externally funded research programs, and also to interact with other CARB scientists involved in physical biochemistry, structural immunology, protein folding, stability, modeling and engineering, macromolecular crystallography, computational chemistry and high-field NMR spectroscopy. One position will be a joint appointment with Bowie State University of the University of Maryland System.

CARB is a research center of the National Institute of Standards and Technology (NIST) and the University of the Maryland Biotechnology Institute devoted to fundamental problems of macromolecular structure, function and engineering. Interested candidates should send a curriculum vitae, three letters of reference, and a summary of research interests and plans to:

Faculty Search Committee
Center for Advanced Research in Biotechnology
University of Maryland Shady Grove
9600 Gudelsky Drive
Rockville, MD 20850
USA

Review of applications will begin on **January 15, 1996**. *CARB is an Equal Opportunity/Affirmative Action Employer. Women and minority candidates are encouraged to apply. For one of the positions, preference will be given to applicants who are U.S. citizens.*

NATIONAL INSTITUTES OF HEALTH (NIH) NATIONAL CENTER FOR HUMAN GENOME RESEARCH (NCHGR)

The Intramural Program of the National Center for Human Genome Research, NIH, announces a search for

DIRECTOR, CENTER FOR COMPLEX DISEASE RESEARCH

The Center for Complex Disease Research (CCDR) is a new research initiative being developed with NIH-wide support and led by the Intramural Research Program of the NCHGR. CCDR will focus on mapping and identifying genes contributing to common genetic diseases inherited as complex traits. Scientist within CCDR will perform high through-put genotyping and data analysis to find map positions for genes that contribute to such disorders.

The Center Director position is a leadership position within the Division of Intramural Research of NCHGR. Applicants must have a Ph.D. and/or M.D., substantial management experience, and comprehensive expertise in human genetic research, including epidemiological methods for analyzing disease phenotypes, large-scale genotyping, and the application of statistical genetic methods to disease gene mapping. The Director must have a breadth of knowledge in human molecular genetics and be effective in organizing and supervising an interdisciplinary team of geneticists, statisticians, computer scientists, and engineers working on complex trait mapping.

Competitive salary and benefit packages are available. The CCDR Director is an interdisciplinary, senior biomedical research position. Please forward curriculum vitae and four references to:

Robert L. Nussbaum, M.D., Chief
Laboratory of Genetic Disease Research
NIH/NCHGR
Building 49, Room 4A72, 49 Convent Drive
Bethesda, MD 20892-4470.

Closing Date: 12/15/95

NIH is an Equal Opportunity Employer

TWO FACULTY POSITIONS SUNY PLATTSBURGH BIOLOGY AND CHEMISTRY DEPARTMENTS

Two anticipated tenure track positions available for Fall, 1996:

1) **MICROBIOLOGIST/BIOLOGIST** Ph.D. with a broad background in microbiology and biology is required. The successful candidate will teach a basic course in general microbiology and a general biology course for majors on a rotating basis. Opportunities for developing upper-level courses and participating in a cell biology and biochemistry research semester exist.

2) **ENVIRONMENTAL CHEMIST** with interest in organic area. Ph.D. in the area required. Successful candidate must be able to teach organic, general and environmental chemistry as well as advanced courses in the field.

Both positions require the development of a research program that actively involves undergraduates. The candidates must be committed to excellence in teaching at an undergraduate liberal arts college with an understanding of, and sensitivity to, minority and gender concerns.

UNDERREPRESENTED MINORITY SCIENTISTS ARE ESPECIALLY ENCOURAGED TO APPLY

Applicants should send a resume, three recommendation letters, a statement of teaching philosophy, transcripts, and a summary of potential research to:

Chair, Search Committee
c/o Personnel Office
SUNY Plattsburgh
(Biologist, Search #1953; Chemist, Search #1952)
Plattsburgh, NY 12901

Closing date is January 15, 1996 or until the positions are filled.

**SUNY PLATTSBURGH IS AN EQUAL OPPORTUNITY/
AFFIRMATIVE ACTION EMPLOYER**



CHIEF

LABORATORY FOR ASTRONOMY AND SOLAR PHYSICS

The NASA/Goddard Space Flight Center invites applications and nominations for this position, located in Greenbelt, Maryland. The vacancy may be filled as either a permanent Senior Executive Service position or on a time limited basis through an appropriate university or intergovernmental arrangement.

The Chief of the Laboratory for Astronomy and Solar Physics is responsible for developing and conducting a broad program of experimental and theoretical research, in specific areas of space science. These areas include: highly advanced state of the art studies of the properties of astrophysical sources with emphases on the Sun, comets, stars, the interstellar medium, stellar clusters, galaxies, galaxy clusters and the early universe; the development of space astronomy instruments; and laboratory and theoretical investigations in support of astrophysical studies from space. The incumbent participates in the overall development and implementation of the Center-wide space science objectives.

The Chief performs individual research and may act as a principal investigator, co-investigator, or a project scientist on NASA missions. Participation on Agency-wide panels and committees is also required of the incumbent.

Desirable qualifications include a Ph.D. degree with extensive post-graduate research experience as well as experience in the scientific and administrative management of research programs which has established the candidate as an authority in astronomy, astrophysics, and/or solar physics. The candidate should also possess demonstrated executive management abilities commensurate with the high level management responsibilities of this position.

Compensation is range is currently \$107,300 to \$122,040 per annum, including locality pay. Submit OF 612, "Optional Application for Federal Employment" or any other written format you choose and a supplemental statement addressing the SES Executive Core Qualifications and the Technical Qualifications of the position. Mail applications to:

Keith P. Lowe
Human Resources Operations Office, Code 113.8
Office of Human Resources
NASA/Goddard Space Flight Center
Greenbelt, MD 20771

For more information about position requirements and application procedures, please call Mr. Lowe at (301) 286-9951 or (301) 286-7918 (TDD).

Complete application must be postmarked by January 23, 1996

Equal Opportunity Employer

U.S. citizenship required.

POSITIONS OPEN

POSTDOCTORAL AND GRADUATE FELLOWSHIPS

Calcium Signaling and Gravity Perception in Plants

Six POSTDOCTORAL and six GRADUATE RESEARCH FELLOWSHIPS are available starting January 1, 1996 for a newly initiated NASA Specialized Center of Research and Training (NSCORT) in gravitational biology. This program is a consortium of faculty from the North Carolina State University Colleges of Agriculture and Life Sciences and Forestry, the Kennedy Space Center, Wake Forest University, and Baruch College. Trainees will use transgenic and pharmacological methods to alter calcium homeostasis in plants. State of the art techniques in video imaging, electrophysiology, biochemistry, and physiology will be used to study gravity-stimulated signal transduction. Send curriculum vitae and names of three references to: Eric Davies, Director NCSU-NSCORT, Department of Botany, North Carolina State University, Raleigh, NC 27695-7612. Email: NSCORT@NCSU.EDU. NCSU is an Equal Opportunity Employer.

YALE SCHOOL OF MEDICINE

Available on or before July 1, 1996, two NIH-supported POSTDOCTORAL RESEARCH FELLOWSHIPS: 1) Effect of diabetes and CNS function/metabolism or T cell regulation in autoimmune IDDM. Projects span metabolism, neurobiology, and immunology. Contact Robert Sherwin, M.D. 2) Regulation of differentiation in mammalian organogenesis by growth factors and inhibitors. Systems include skin, bone, teeth, mammary gland, and lung (PNAS, 91:1133, 1994). Contact William Philbrick, Ph.D. Send curriculum vitae, a summary of relevant experience, and the names of three references to the appropriate faculty member at: Endocrine Section, Yale School of Medicine, Box 208020, Fitkin I, New Haven, CT 06520. U.S. citizenship or permanent residency required. An Equal Opportunity Employer.

POSTDOCTORAL POSITIONS available to study genes that determine the yeast replicative life span, their human homologs and age-responsive promoter elements (*Genetics*, 91:35, 1993; *J. Biol. Chem.*, 269:15451, 1994; *J. Biol. Chem.*, 269:18638, 1994). Experience in molecular techniques essential and in yeast genetics helpful. Send curriculum vitae with bibliography and names, telephone and fax numbers of three references to: Dr. S. Michal Jazwinski, Department of Biochemistry and Molecular Biology, Louisiana State University Medical Center, 1901 Perdido Street, New Orleans, LA 70112. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available to participate in studies on the structure, function and regulation of components of signal transduction pathways. Prefer applicants with experience in molecular cloning and recombinant DNA techniques. Send curriculum vitae to: Dr. Zahi Damuni, Associate Professor, Department of Cellular and Molecular Physiology, The Pennsylvania State University College of Medicine, 500 University Drive, Hershey, PA 17033. Telephone: 717-531-4195; FAX: 717-531-7667. For your health, Hershey Medical Center is a smoke-free campus. We are an Equal Opportunity/Affirmative Action Employer and encourage minority and female applicants to apply.

POSTDOCTORAL POSITION available for de novo design and combinatorial selection of RNA-binding proteins and RNA structural elements. Aims of the project are to help define basic principles of RNA-protein recognition and to design inhibitors of RNA protein interactions, particularly those relevant to HIV. Background in chemistry or structural biology is desirable. Applicants should send a curriculum vitae and names and addresses of three references to: Dr. Alan Frankel, Department of Biochemistry and Biophysics, University of California, San Francisco, CA 94143-0448.

POSTDOCTORAL FELLOW/RESEARCH ASSOCIATE/ASSISTANT

Position available early 1996 to study gene activation in liver disease. Expertise in molecular biology and tissue culture essential. Salary \$30,000 per year. Send curriculum vitae and three letters of reference to: Dr. Tim Morgan, VA Medical Center-111G, 5901 East Seventh Street, Long Beach, CA 90822. FAX: 310-494-5675; Email: tmmorgan@orion.oac.uci.edu.

POSITIONS OPEN

FELLOWSHIPS IN MATHEMATICS AND MOLECULAR BIOLOGY

The Program in Mathematics and Molecular Biology has GRADUATE and POSTDOCTORAL FELLOWSHIP support available. Current topics in the Program include geometry, topology, and sequence analysis of DNA, molecular dynamics, phylogenetic comparison, and RNA, and algorithms for molecular structure prediction. Other areas will be considered. Fellowships can be held at any university or college in the United States. Postmark deadline for applications: February 1, 1996. Women and minorities are encouraged to apply. Apply to: PMMB, 103 Donner Lab, Number 3206, University of California at Berkeley, Berkeley, CA 94720-3206. Email: sylviaj@violet.berkeley.edu.

THREE POSTDOCTORAL POSITIONS are available immediately in the "Drosophila Group" at the University of Kansas. Group members and interests include: Robert Cohen: mechanisms of mRNA localization and dorsoventral pattern formation; Victoria Corbin: molecular genetics of muscle determination and differentiation, with emphasis on neurogenic genes; Xiangyi Lu: receptor tyrosine kinase-mediated signal transduction; Douglas Ruden: cell-cycle control; cytoskeleton-associated motor proteins and their role in pattern formation. Applicants should send curriculum vitae and names of three references to group member of interest at: Biological Sciences, University of Kansas, Lawrence, KS 66045-2106. An Affirmative Action/Equal Opportunity Employer.

HARVARD MEDICAL SCHOOL THE CHILDREN'S HOSPITAL

Two postdoctoral positions are open to investigate G-protein receptors and transgenic models of inflammatory disease (*Nature*, 377:435-438, 1995; *Journal of Experimental Medicine*, 181:2271-2275, 1995). Experience in receptor biochemistry, molecular biology, or transgenic animals is required. Reply with names of references to: Drs. Craig and Norma Gerard, Enders 144, Children's Hospital, 320 Longwood Avenue, Boston, MA 02115. Women and minority applicants are particularly encouraged to apply.

POSTDOCTORAL POSITION La Jolla Cancer Research Foundation

A position is available immediately in the laboratory of Steven Frisch. We are investigating the regulation of apoptosis by cell adhesion ("anoikis," *J. Cell Biol.*, 124: 619-626, 1994; reviewed in *Cell*, 77:477-478, 1994); current emphasis is on how integrin signaling and cell-cell interactions control apoptosis. A second project is on the epithelial master-programming effect of E1a (*J. Cell Biol.*, 127:1085-1096, 1994) that causes tumor suppression (*Proc. Natl. Acad. Sci.*, 88:9077-9081, 1991). Please FAX: 619-455-0181 or Email: sfrisch@ljcrf.edu.

POSTDOCTORAL POSITION

Available immediately at Oregon Health Sciences University (OHSU) to pursue tissue engineering with a multidisciplinary group. Requirements include strong polymer background and *in vitro* experience. Send curriculum vitae and three letters of recommendation to: Dr. Jeffrey Hollinger, Department of Surgery, L-352A, Oregon Health Sciences University, Portland, OR 97201-3098. OHSU is an Equal Opportunity Employer.

NIH POSTDOCTORAL FELLOWSHIP

Available immediately in obesity research. The studies involve the regulation of leptin (*ob*) and β -adrenergic receptor expression and function in fat cells. U.S. citizenship or permanent resident alien status required. Send letter and curriculum vitae to: Dr. Suleiman Bahouth or Dr. John Fain, The University of Tennessee-Memphis, Memphis, TN 38163. The University of Tennessee is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Behavioral Ecology and Comparative Neurobiology. The University of Kentucky has in place a NIMH Research Training Grant program for POSTDOCTORAL and GRADUATE FELLOWSHIPS to support a unique training program that emphasizes integrative research on the interface between behavioral ecology and neurobiology. Fellowships include stipends and funds to support research expenses. To apply, send a curriculum vitae and a statement summarizing your background and research interest to: Bert Peretz, Department of Physiology, 40536-0084; Andrew Sih, School of Biological Sciences, 40506-0225; or Ken Haynes, Department of Entomology, 40546-0091; University of Kentucky, Lexington, KY. Further information can be obtained from our WWW site: <http://darwin.cceb.b.uky.edu/cccb/beacon.html>. Applications will be considered as they arrive. Women and minorities are particularly encouraged to apply. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to study the molecular mechanism of human prostate cancer tumorigenesis at the University of Pittsburgh Cancer Institute. The project involves cloning of genes responsible for the development and progression of prostate cancer. Ph.D. graduates with strong background in human genetics and gene hunting are particularly encouraged to apply.

University of Pittsburgh Cancer Institute provides an excellent academic environment for young scientists to succeed. Interested candidates should send curriculum vitae and three letters of reference to: Dr. B. Liu, University of Pittsburgh Cancer Institute, W951 Biomedical Science Tower, Pittsburgh, PA 15213. FAX: 412-624-7736. The University of Pittsburgh is an Affirmative/Equal Opportunity Employer.

A POSTDOCTORAL POSITION (M.D. or Ph.D.) is available in the Department of Medicine at Massachusetts General Hospital, Harvard Medical School, to study transcriptional mechanisms of neuron-specific gene expression and to characterize forebrain-specific transcription factors involved in neuronal differentiation. Use is made of immortalized clonal cell lines established in our laboratory from different forebrain structures of embryonic rats. Experience in molecular biology is preferred. U.S. permanent residency or U.S. citizenship required. Applicants should send a curriculum vitae and three letters of recommendation to: Mario Vallejo, M.D., Ph.D., Reproductive Endocrine Unit, Massachusetts General Hospital, Boston, MA 02114.

POSTDOCTORAL POSITIONS to study the regulation of herpes virus gene expression *in vitro* and *in vivo*. The studies may include structure/function analysis of the viral regulatory proteins, the biochemistry of virus/host interactions, or the involvement of viral mechanisms in the alteration of host cell metabolism. A position is also available to generate specific HSV mutants for gene transfer applications. Applicants should possess a doctoral degree in molecular genetics, biochemistry, or virology. Applicants should send a current curriculum vitae and list of references to: Neal DeLuca, Associate Professor, Department of Molecular Genetics and Biochemistry, E1257 Biomedical Science Tower, University of Pittsburgh School of Medicine, Pittsburgh, PA 15261.

POSTDOCTORAL POSITIONS Cellular and Molecular Basis of Reproduction

Two centers at Universidad de Chile and Universidad Católica de Chile in Santiago are offering research training for one to two years through a program funded by The Rockefeller Foundation. The research areas are: human luteal function, fertilization, gamete transport, lactational infertility, ectopic implantation, and mucociliary transport. Request information from: Manuel Villalón, Ph.D. and/or Luigi Devoto, M.D. FAX: 56-2-6336204; Email: mvilla@genes.bio.puc.cl

TWO POSTDOCTORAL POSITIONS available: 1) Oxidation chemistry: expertise in the study of organic substrate reaction/interactions with inorganic complexes or metalloproteins. Experience with GC, HPLC, NMR and/or molecular modeling is helpful; 2) Ribozymes: expertise in RNA techniques. Experience with ribozymes and/or *in vitro* selection technique is helpful. Salary is commensurate with experience. Send résumé, research summary and list of references to: Prof. Yi Lu, Department of Chemistry, University of Illinois at Urbana-Champaign, Urbana, IL 61801.

Minority Medical Faculty Development Research Fellowships

The Minority Medical Faculty Development Program, sponsored by the Robert Wood Johnson Foundation, has up to 12 positions beginning in 1997. The program offers postdoctoral research fellowships to physicians from under-represented minority groups as defined by the Association of American Medical Colleges (African-Americans, Mexican-Americans, Native Americans, and mainland Puerto Ricans who have completed at least college and medical education on the mainland). These individuals must have demonstrated superior academic and clinical skills and must be committed to careers in academic medicine with special interest in **BIOMEDICAL RESEARCH, CLINICAL INVESTIGATION, OR HEALTH SERVICES RESEARCH**. The fellowship supports four consecutive years of research training. Each Fellow will receive an annual stipend of up to \$50,000 with 5% increases per year and a fixed \$25,000 annual grant toward support of research activities.

Applicants must be U.S. citizens and must have completed formal clinical training by the projected time of entry into the program. The application deadline is April 1, 1996; applications must be requested by March 1, 1996.

For further information and application materials, contact James R. Gavin III, M.D., Ph.D., Program Director, Minority Medical Faculty Development Program, 4733 Bethesda Avenue, Suite 350, Bethesda, MD 20814. Telephone (301) 913-0210.

Consortium for a Strong Minority Presence at Liberal-Arts Colleges

MINORITY SCHOLAR-IN-RESIDENCE PROGRAM

With a view toward encouraging African-American, Asian-American, Hispanic-American, and Native American scholars to consider teaching and research careers at small liberal-arts colleges, the Consortium for a Strong Minority Presence at Liberal-Arts Colleges, an association of selective undergraduate institutions, has established the Minority Scholar-in-Residence Program. Applications are invited for the dissertation fellowship program or the post-doctoral fellowship program in all disciplines of the liberal arts and engineering. Applicants should be working toward the Ph.D. or the M.F.A. degree, or should have been awarded the degree no more than five years before application.

The Minority Scholar-in-Residence will receive a stipend equal to the typical salary for beginning instructors or assistant professors. Scholars will be expected to do some teaching and research, and to participate in other activities at the host institution under the supervision of a mentor. It is hoped that the scholars will, upon completion of their residency, qualify for tenure-track appointments at the host institution or a similar institution.

Scholars must be citizens of the United States and have had no more than five years of teaching or relevant work experience before receiving the award. Ideally, applicants for the dissertation fellowship program should have completed their research before the beginning of the fellowship year.

Among the member institutions of the Consortium, the following offer to sponsor minority scholars during the 1996-97 academic year: Bates College, Bowdoin College, Bryn Mawr College, Colby College, Colorado College, Davidson College, Franklin & Marshall College, Grinnell College, Haverford College, Macalester College, Oberlin College, Occidental College, Pomona College, Reed College, Swarthmore College, Vassar College, and Wellesley College.



The brochure describing the program and an application form may be requested by writing to: Frank Thomas, Special Assistant to the President, Grinnell College, P.O. Box 805, Grinnell, IA 50112-0810

Application deadline: December 1.



A UNIQUE RESEARCH ENVIRONMENT WITH UNPARALLELED RESOURCES is recruiting scientific staff members interested in using the tools of mouse genetics in biology to pursue independent research programs in:

- Cancer
- Complex Traits
- Computational Biology
- Immunology/Hematology
- Developmental Biology
- Genome Organization
- Metabolic Diseases
- Neurobiology

Applicants should hold a doctorate in a related field and have completed postdoctoral training. Letters of inquiry should include: curriculum vitae, statement of research interests, and names of three references. To apply or request further information, contact: **Ms. Rita Poirier, The Jackson Laboratory, 600 Main Street, Bar Harbor, ME 04609 Phone: 207-288-6181 FAX 207-288-5079; e-mail: rsp@aretha.jax.org EOE/AA Employer**

VACCINE CENTER Two Senior Faculty Positions

Department of Microbiology Mount Sinai School of Medicine

Renowned for academic excellence, Mount Sinai School of Medicine has two faculty positions at the Professor (or Associate Professor) level for candidates with strong backgrounds in fundamental and/or applied research on vaccines and vaccine development. Recently renovated laboratory research space and an attractive start-up support package are available for these positions.

Mount Sinai

Applicants should send a curriculum vitae, a statement of research interest, and the names of three references, to: **Dr. Peter Palese, Department of Microbiology, Box 1124, Mount Sinai School of Medicine, One Gustave L. Levy Place, New York, NY 10029-6574. Equal Employment Opportunity/Affirmative Action Employer.**

The Mount Sinai Medical Center of New York

POSITIONS OPEN

TWO POSTDOCTORAL POSITIONS Strong Background in Cellular and Molecular Biology Required

1) To study animal models of neurological disease with a focus on the development of therapeutic strategies for treating these models. 2) To study transgenic and gene-targeting strategies to generate animal models of neurodegenerative disease. Send letter and curriculum vitae to:

Donald L. Price, M.D.

The Johns Hopkins University School of Medicine
Neuropathology Laboratory

720 Rutland Avenue, 558 Ross Research Building
Baltimore, MD 21205-2196

Email: ADRC@WELCHLINK.WELCH.JHU.EDU
(No phone calls, please)

Equal Opportunity Employer. Women and minorities are encouraged to apply.

The Massachusetts General Hospital (MGH) NIH POSTDOCTORAL TRAINING Programs are seeking qualified candidates for the following research training opportunities: NMR Research; Immunology and Tumor Biology; Radiological Science; Cell Structure and Function in Nephrology; Reproductive and Developmental Biology; Burns and Trauma; Basic Science Research Training for Anesthetists; Connective Tissue Structure, Function, and Disease; Endocrinology and Diabetes; Digestive Diseases; Cell and Molecular Aspects of Cardiovascular Biology; and Basic Neuroscience for Neurologists and Neurosurgeons.

Additionally, please note that the MGH is very committed to providing training opportunities in these areas for qualified individuals in groups currently underrepresented in science, namely minorities and women. However, please note that the source of funding for these programs, the NIH, imposes a restriction that candidates for these particular positions must be only U.S. citizens or permanent residents. Please contact: Richard L. Pharo, Sc.D., Research Affairs, MGH, Fruit Street, Boston, MA 02114-2896.

Opportunities for POSTDOCTORAL TRAINING in cell and molecular biology. The Diabetes and Metabolic Disease Research Program at Stony Brook offers opportunities for postdoctoral training supported by an institutional National Service Research Award from the NIH. More than 30 distinguished scientists with research interests in cell and developmental biology, endocrinology and insulin action, and cell signaling constitute the training faculty. Stony Brook enjoys rich diversity in its student, fellow, and resident community. Special programs designed to encourage talented, young minority scientists into careers in the biomedical sciences, especially diabetes and endocrine research, are available immediately for candidates holding a Ph.D. and/or M.D. For further information, please contact: Dr. Craig C. Malbon, Director-DMDRP, c/o Department of Molecular Pharmacology, University Medical Center, SUNY/Stony Brook, Long Island, NY 11794-8561. Telephone: 516-444-7873; FAX: 516-444-7696.

POSTDOCTORAL POSITION available immediately to study the mechanisms of developmentally regulated alternative splicing. Projects include: (i) regulation of striated muscle-specific exon inclusion via positive-acting intron elements and (ii) mechanisms of enhanced splicing by purine-rich and non-purine-rich exon elements. A strong background in molecular biology or biochemistry is required. Send curriculum vitae, statement of research experience and future goals, and names of three references to: Dr. Tom Cooper, Department of Pathology, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030. Telephone: 713-798-3141; FAX: 713-798-5838; Email: tcooper@bcm.tmc.edu. Baylor College of Medicine is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOW

Lawrence Berkeley National Laboratory has a POSTDOCTORAL position available from December 1, 1995, to develop three dimensional image analysis techniques to study the genetics of tumors. Experience in epi-fluorescence microscopy, image analysis, and UNIX workstations essential. Candidates should have a recent Ph.D. in the physical sciences. Send curriculum vitae and the names of three references to: Dr. Stephen Lockett, c/o Employment/Staffing Unit, Job Number LSD3816, Lawrence Berkeley National Laboratory, University of California, Berkeley, CA 94720. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

GRADUATE ASSISTANTSHIPS in molecular biology, biochemistry and biophysics. Several positions are available in the Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, Connecticut. Departmental research interests emphasize regulation of gene expression in embryogenesis and development; heat-shock response and cellular regulation of iron metabolism; biophysics of protein-nucleic acid interactions; tissue differentiation and regulation of collagen gene expression; molecular genetics and regulation of protein secretion; DNA replication; DNA repair and the cell cycle; biophysics of allosteric proteins; nuclear magnetic resonance spectroscopy, optical and vibrational spectroscopy and computer modeling. All students receive 12-month stipends, tuition remission, fringe benefits, and dependency allowance, if applicable. Opportunities to teach. Write: Director of Graduate Admissions, Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT 06459-0175.

PREDOCTORAL AND POSTDOCTORAL TRAINING PROGRAM IN REPRODUCTIVE SCIENCES

The University of Kentucky is recruiting PREDOCTORAL and POSTDOCTORAL TRAINEES for an NIH-supported training program in the reproductive sciences. Applicants must be U.S. citizens or permanent residents. Faculty are from the Departments of Animal Science, Anatomy and Neurobiology, Biochemistry, Pharmacology, Physiology, OB-GYN, and Vet Science, with diverse research interests in the reproductive sciences at the molecular, cellular, and whole animal level. For further information, please contact: Dr. Tom Curry, Department of OB-GYN, University of Kentucky, Lexington, KY 40536. Telephone: 606-323-6166; FAX: 606-323-1931; Email: tc Curry@pop.uky.edu. The University of Kentucky is an Equal Opportunity/Affirmative Action Employer and encourages applications from qualified women and minorities.

POSTDOCTORAL POSITIONS available to study structure-function relationships among mammalian cytochromes P450. Approaches include heterologous expression, site-directed mutagenesis, and molecular modeling (*Biochemistry*, 31:9220-9226, 1992; *J. Biol. Chem.*, 268: 4453-4457, 1993; *Mol. Pharmacol.*, 46:338-345, 1994; *Biochemistry*, 33:4419-4424, 1994). Strong formal and practical training in protein biochemistry, recombinant DNA technology, or homology modeling of proteins is required. Salary is competitive and negotiable. Review of applications begins on December 10, 1995, and applications will be accepted until positions are filled. Send curriculum vitae and names of three references to: Dr. James Halpert, Department of Pharmacology and Toxicology, University of Arizona, Tucson, AZ 85721. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION—Cell Biology. An experienced microscopist is sought to participate in two NIH-funded projects. The first concerns the regulation of mitochondrial respiration during cellular responses to activating signals. The second concerns the intracellular mechanisms responsible for directed cell motility. The projects will be facilitated by the availability of excellent resources for quantitative optical microscopy and image processing in the Center for Biomedical Imaging Technology. Candidates should send their curricula vitae and have three reference letters sent to: Leslie M. Loew, Professor of Physiology, UConn Health Center, Department of Physiology, 263 Farmington Avenue, Farmington, CT 06030-3505. An Affirmative Action/Equal Opportunity Employer. Minorities/Females/Persons with Disabilities/Veterans.

POSTDOCTORAL POSITION Genome Sequencing Technology

Designing and developing automated capillary fluorescent DNA sequencing systems based on novel fluidic technology. Candidates will be considered with backgrounds in analytical chemistry, engineering, molecular biology, micromachining or instrumentation. Submit curriculum vitae, a short statement of research accomplishments and at least two letters of recommendation to: Dr. Harold Swerdlow, Department of Human Genetics, 2100 EIHG, University of Utah, Salt Lake City, UT 84112. FAX: 801-581-5163. More information: <http://www.genetics.utah.edu/swerdlow>.

University of Utah is an Equal Employment Opportunity/Affirmative Action Employer and encourages applicants from males, women, and minorities.

POSITIONS OPEN

PH.D. MOLECULAR BIOLOGISTS

Two positions available in the Pulmonary Division, Brigham and Women's Hospital/Harvard Medical School. POSTDOCTORAL FELLOW position is available to study the molecular interactions between GPI-linked receptors and integrins as they pertain to cellular differentiation and migration. Experience in molecular biology and molecular genetics or cell signaling required (Reference: 95/PF). RESEARCH ASSOCIATE position is available to study polymorphisms in various human genes related to asthma. Ph.D. in biology/molecular biology and three years of postdoctoral experience required. This is a non-tenured, non-faculty position (Reference: 95/RA). Send curriculum vitae to: DC, Pulmonary Division, Brigham and Women's Hospital, 75 Francis Street, Boston, MA 02115. FAX: 617-732-7421. Please identify the position for which you wish to be considered by including reference number. No telephone calls please. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION Molecular Biology of Color Vision

A position is available immediately to study molecular biology of vision, including characterization of opsin genes and structure/function relationships of opsins in vertebrates. Experience with cell and molecular methodology (cell culture, protein biochemistry, recombinant DNA techniques) is required, and a strong interest in molecular evolution is desirable. Send curriculum vitae, a statement of research interests, and three references to: Dr. Shozo Yokoyama, Department of Biology, Syracuse University, 130 College Place, Syracuse, NY 13244. Telephone: 315-443-9166; FAX: 315-443-2012; Email: syokoyam@mailbox.syr.edu. Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION

University of California and Veterans Administration Medical Center (VAMC), San Francisco, has a position available immediately for a qualified individual to join a group studying the impact of microgravity and skeletal unloading on bone growth and differentiation. Applicants should have a Ph.D. in the biological sciences, be experienced with cellular and molecular techniques, and be willing and able to work with rodents. Please send curriculum vitae and names of three references to: Daniel Bikle, M.D., Ph.D., Department of Medicine, VAMC (111N), 4150 Clement St., San Francisco, CA 94121.

POSTDOCTORAL POSITIONS SOYBEAN DISEASE BIOTECHNOLOGY

Positions available immediately to study the molecular interactions between soybeans and the fungus *Phialophora gregata*. This research is part of a multi-investigator project to develop novel disease resistance genes for soybeans. Molecular biology experience required; experience in plant genome analysis, fungal molecular biology, and/or plant-pathogen interactions preferred. Send curriculum vitae and the names of three references by December 1, 1995 to: Randy C. Shoemaker, Department of Agronomy, or Charlotte R. Bronson, Department of Plant Pathology, Iowa State University, Ames, IA 50011-1020.

POSTDOCTORAL POSITION

Salinity Ecology of Aquatic Plants. Available immediately for two and one-half years at Key Largo, Florida. Assess the influence of salinity fluctuation on growth, survival, and acclimation of submersed plants both in the field (northern land margin of Florida Bay) and in an outdoor facility to be constructed on Key Largo. Involves field and laboratory experimentation and ecophysiological measurements. Send letter of interest, curriculum vitae, and three letters of reference to: Dr. Clay L. Montague, Department of Environmental Engineering Sciences, P. O. Box 116450, University of Florida, Gainesville, FL 32611 U.S.A.

Department of Energy Distinguished Postdoctoral Research Program offers POSTDOCTORAL FELLOWSHIPS at DOE labs in Physical and Computer Sciences, and Engineering. \$52,800. Ph.D. after December 31, 1992. U.S. citizens or permanent residents only. Deadline: December 15, 1995. Application form required. Contact: DOE Distinguished Postdoctoral Research Program, Orise/Seed, P.O. Box 117, Oak Ridge, TN 37831-0117. Telephone: 615-576-9934.

Veterinary Microbial Pathogenesis Scientist

Pharmacia & Upjohn, Inc. is currently seeking a scientist to work in the animal health discovery program to evaluate new and approved therapeutic and vaccine agents in large and small animal models. You will also use your expertise in the area of disease pathogenesis by developing new animal models to help identify new therapeutic and vaccine targets. The successful candidate will be expected to have a DVM or equivalent and a Ph.D. in the field relating to pathogenesis of veterinary or medical diseases. Experience in enteric or respiratory diseases is desirable.

We offer a stimulating, multi-disciplinary research environment at our headquarters in Kalamazoo (a southwestern Michigan community located midway between Chicago and Detroit). We provide an excellent salary and benefits package. For confidential consideration please submit your c.v. to: **Pharmacia & Upjohn, Inc., Corporate Employment, Ad #303, 7000 Portage Road, Kalamazoo, MI 49001.**

Pharmacia & Upjohn, Inc.

Explore the Frontiers of Technology

For those who would venture where few have been, Parke-Davis, a leader in advanced technology, has the following opportunities:

Psychiatric Disorders Section Postdoctoral, Neuroscience Therapeutics

Studies cellular/molecular effects of antidepressant and/or antipsychotic drugs on mammalian neuronal gene expression. The project will involve identifying genes in brain that may be involved in the therapeutic efficacy of antidepressant and/or antipsychotic drugs. Ph.D. required in neuroscience, biochemistry, pharmacology or molecular biology. Must be expert in molecular biology and cell culture. Job #: 2236

Neurological and Neurodegenerative Disorders Section Postdoctoral, Neuroscience Therapeutics

Explores molecular mechanisms and pharmacology of cell death related to degenerative diseases such as ischemia and Alzheimer's. Opportunity exists in following research areas: • role of intracellular calcium in hypoxia/ischemia and free radical mediated cellular injury • elucidation of inflammatory mechanisms leading to neuronal death in stroke and Alzheimer's • role of endothelins in stroke and in blood brain barrier permeability and function • role of metabotropic glutamate receptors in cell injury/death using antisense technology. Will consider any relevant Ph.D. Job #: 2237

Send CV, letter describing detailed research interest and experience, 3 letters of recommendation, and reference job # to: Parke-Davis Pharmaceutical Research Division, Box DSMIN, 2800 Plymouth Road, Ann Arbor, MI 48105. Equal opportunity in action.

 **PARKE-DAVIS**

OREGON STATE UNIVERSITY TOXICOLOGY

Program

Oregon State University offers interdisciplinary training in toxicology through its predoctoral Toxicology Program as well as postdoctoral fellowships. Most financial support for graduate students in the Toxicology Program comes from research grants awarded to participating faculty members; appointment as a Graduate Research Assistant on such a grant provides waiver of tuition. The Toxicology Program is complemented by an associated National Institute of Environmental Health Sciences Training Grant that offers financial support and unique research opportunities to selected predoctoral candidates and postdoctoral fellows; this NIEHS support is available on a competitive basis to applicants (U.S. citizens and permanent residents only) with a recent B.S., M.S., or Ph.D. degree(s) in chemistry, biochemistry, pharmacology, toxicology, or the biological sciences. Minority applications are encouraged. The University also provides supplemental funds, through the Graduate School, for ten minority assistantships and may provide assistance through the Western Interstate Commission for Higher Education. Former trainees have been sought out and are presently professionally employed by government, academic institutions, and industry; others have accepted postdoctoral positions with nationally and internationally recognized scientists.

Affiliated faculty members provide challenging basic science academics while mentoring students as they develop individual research projects; this intensive course of study leads to the M.S. or Ph.D. degree in toxicology. Training is provided in diverse areas, including: analytical, aquatic, biochemical, comparative, environmental, and food toxicology with an emphasis on a mechanistic approach. Research projects focus on some aspect of toxicology or environmental health. OSU has two NIEHS-designated research centers: the Environmental Health Sciences Center and the Marine/Freshwater Biomedical Sciences Center; both centers offer state-of-the-art equipment and specialized research facilities and opportunities.

Training Grant Faculty

DR. GEORGE S. BAILEY, Dir., Marine/Freshwater Biomedical Sciences Center and Distinguished Prof., Dept. of Food Science and Technology. Aquatic, biochemical, and food toxicology; chemical carcinogenesis.

DR. DAVID BARNES, Prof., Dept. of Biochemistry and Biophysics. Cell culture; peptide growth factors and regulation of gene expression.

DR. DONALD R. BUHLER, Prof., Dept. of Agricultural Chemistry. Biochemical and comparative toxicology; xenobiotic metabolism; and mechanisms of toxicant action.

DR. BRUCE GOLD, Assoc. Prof., Center for Research on Occupational and Environmental Toxicology, Oregon Health Sciences University, Portland. Neurotoxicology.

DR. JERRY D. HENDRICKS, Prof., Dept. of Food Science and Technology. Aquatic and food toxicology.

DR. JEFFREY J. JENKINS, Associate Prof., Dept. of Agricultural Chemistry. Environmental analytical chemistry, pesticide risk assessment, extension toxicology and chemistry.

DR. NANCY I. KERKVLIT, Prof., Dept. of Agricultural Chemistry. Immunotoxicology, risk assessment, and extension toxicology.

DR. DENNIS R. KOOP, Assoc. Prof., Dept. of Pharmacology, OHSU, Portland. Biochemical toxicology and xenobiotic metabolism.

DR. THOMAS J. MURRAY, Prof., College of Pharmacy. Neurotoxicology and pharmacology.

DR. DONALD J. REED, Dir., Environmental Health Sciences Center and Distinguished Prof., Dept. of Biochemistry and Biophysics. Biochemical and cellular toxicology; biological oxidations; and drug metabolism.

DR. HENRY SCHAUP, Prof., Dept. of Biochemistry and Biophysics. Molecular toxicology.

DR. LAVERN J. WEBER, Dir., Mark Hatfield Marine Sciences Center, Newport, and Prof., Dept. of Fisheries and Wildlife and of Pharmacology and Toxicology. Aquatic and comparative toxicology; and pharmacology.

DR. PHILLIP D. WHANGER, Prof., Dept. of Agricultural Chemistry. Biochemical/metal toxicology; nutrition.

DR. DAVID E. WILLIAMS, Dir., NIEHS Training Grant (toxicology), Prof., Dept. of Food Science and Technology. Biochemical toxicology and xenobiotic metabolism.

Additional Faculty, Toxicology Program

DR. CHARLES ALLEN, Assoc. Staff Scientist for Research and Environmental Toxicology Center for Research on Occupational and Environmental Toxicology, OHSU, Portland. Neurotoxicology.

DR. PETER R. CHEEKE, Prof., Dept. of Animal Science. Comparative toxicology and poisonous plants.

DR. MAX L. DEINZER, Prof., Dept. of Agricultural Chemistry. Analytical and environmental chemistry.

DR. JENNIFER FIELD, Asst. Prof., Dept. of Agricultural Chemistry. Biogeochemistry; organic pollutants in ground, surface, and waste water.

DR. LOREN D. KOLLER, Prof., College of Veterinary Medicine. Immunotoxicology.

DR. DALE MOSBAUGH, Prof., Dept. of Agricultural Chemistry. Genetic integrity and replication of DNA, molecular mechanisms of mutagenesis.

DR. DANIEL SELIVONCHICK, Prof., Dept. of Food Science and Technology. Aquatic, biochemical, and food toxicology; membrane biochemistry.

DR. IAN J. TINSLEY, Interim Chair, Toxicology Program, Prof. and Chair, Dept. of Agricultural Chemistry. Biochemical toxicology; lipid chemistry; nutrition.

DR. KENNETH J. WILLIAMSON, Prof., Dept. of Civil Engrg. Aquatic toxicol/environmental engineering.

FOR MORE INFORMATION, WRITE or TELEPHONE:

Dr. David Williams, Director, NIEHS Training Grant

Dept. of Food Science and Technology

Oregon State University

Corvallis, OR 97331

Tel: (541) 737-3277; Fax: (541) 737-1877

Oregon State University is an Affirmative Action Equal Opportunity Employer and complies with Section 504 of the Rehabilitation Act of 1973.



POSITIONS OPEN

Evolutionary Ecology. The University of Kentucky has funds from the NSF Graduate Research Training program for **POSTDOCTORAL** and **GRADUATE FELLOWSHIPS** to support training and research in ecology, evolution, or behavior. The program offers extensive opportunities for training in both empirical and theoretical methods. Faculty participants include: **E. D. Brodie III, P. H. Crowley, S. K. Gleason, K. F. Haynes, A. J. Moore, D. N. McLetchie, R. C. Sargent, A. Sih, D. F. Westneat, and D. Wise.** Graduate fellowships provide a \$14,000 stipend for one year, renewable for a second year based on satisfactory progress toward a Ph.D. Additional funds are available to support research expenses. Postdoctoral fellowships provide a \$25,000 stipend for one year. *Applicants must be U.S. citizens or permanent residents.* Applications will be evaluated starting January 15, 1996. Further information can be obtained from our WWW site: <http://darwin.ceeb.uky.edu/ceeb/grt.html>. To apply, postdoctoral applicants should send a curriculum vitae and a letter summarizing your background, research interests, and the name of the faculty you are most interested in working with to: **Craig Sargent, c/o Center for Ecology, Evolution and Behavior, 101 Morgan Building, University of Kentucky, Lexington, KY 40506-0225.** Graduate applicants may send the above information directly to the faculty member. *Women and minorities are particularly encouraged to apply. An Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITIONS MEHARRY MEDICAL COLLEGE

POSTDOCTORAL FELLOWSHIPS are available immediately in an NHLBI-supported training program that focuses on cellular and molecular mechanisms whereby trauma and infectious organisms cause cardiovascular and hematologic disease. Research areas include: growth factor receptor homologues in the regulation of intracellular growth of *Trypanosoma cruzi*, surface molecules that govern *T. cruzi* invasiveness, immunobiology of leishmaniasis, vaccine-induced responses to plasmodial antigens, growth and matrix production in fibroblasts from normal and fibrotic tissue, characterization of virulence genes in *Streptococcus pneumoniae*, host cell invasion by *Bartonella bacilliformis*, transcription and replication strategies of negative stranded RNA viruses, and gene regulation in HIV. The program is conducted by faculty in the Departments of Microbiology and Biomedical Sciences at Meharry in conjunction with faculty in the Departments of Microbiology and Immunology, Cell Biology, Pathology, and Biochemistry at Vanderbilt University. Applicants should send a letter of interest, curriculum vitae, and the names and addresses of three references to: **Shirley Russell, Ph.D., Department of Microbiology, Meharry Medical College, Nashville, TN 37208.** *Funding is restricted to U.S. citizens and permanent residents. Women and members of underrepresented minority groups are especially encouraged to apply.*

POSTDOCTORAL POSITION

A **POSTDOCTORAL POSITION** is available immediately for a highly motivated scientist to study the molecular biology of RNA plant viruses. Projects involve investigations of virus replication, pathogenesis, and cell to cell movement, with an emphasis on practical applications of the research findings. Candidates should possess demonstrated abilities in modern techniques of molecular biology including PCR, site-directed mutagenesis, and *in vitro* transcription and translation. Previous experience with plant viruses is essential. The position offers significant scientific resources and offers an opportunity for interaction with both university and industrial researchers. Application deadline is December 15, 1995. Send curriculum vitae and three letters of reference to: **Dr. Gary Hellmann, Biotechnology Research, RJR Research and Development, Bowman Gray Technical Center, Winston-Salem, NC 27102.** *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to study mechanical load effects on osteoblast gene expression and bone formation using three-dimensional osteoblast cultures in biodegradable polymer scaffolds. Experience in bone cell molecular biology and genetics techniques is required. Submit curriculum vitae and names of three references to: **Dr. Antonios G. Mikos, Institute of Biosciences and Bioengineering, Rice University, P.O. Box 1892, Houston, TX 77251.** *Rice University is an Equal Opportunity/Affirmative Action Employer; women and minority candidates are encouraged to apply.*

POSITIONS OPEN



BROWN UNIVERSITY POSTDOCTORAL FELLOWSHIPS Environmental Pathology

POSTDOCTORAL RESEARCH FELLOWSHIPS are available in a training program in environmental pathology for predoctoral, postdoctoral, and medical students at Brown University. Research training will be provided in basic mechanisms of disease related to environmental exposures including stress, chemical toxicants, and mineral fibers. This is a multidisciplinary program that applies the tools of biochemistry, molecular biology, and cell biology to study the pathogenesis of cancer, reproductive toxicity, and immune dysfunction related to these environmental exposures. A Ph.D. in cell biology, biochemistry, molecular biology, immunology, or toxicology is required. Additional training in experimental pathology will be provided. *This program is funded by the National Institute of Environmental Health Sciences for U.S. citizens or permanent residents.* Applicants should send curriculum vitae, publications, three letters of recommendation, and statement of research goals to: **Agnes B. Kane, M.D., Ph.D., Program Director, Department of Pathology and Laboratory Medicine, Brown University, Providence, RI 02912.** Telephone: 401-863-1110; FAX: 401-863-9008. *Brown University is an Equal Employment Opportunity/Affirmative Action Employer.*

RESEARCH TRAINING FOR M.D. AND/OR PH.D. FELLOWS IN CARDIOVASCULAR DISEASE University of Alabama at Birmingham (UAB)

Applications are being accepted for **POSTDOCTORAL POSITIONS** in this NIH training program starting July 1, 1996. Participation by minority candidates is encouraged. These NIH positions are limited to U.S. citizens and permanent residents.

Mechanisms and Consequences of Coronary Heart Disease (CHD): The Division of Cardiovascular Disease at UAB offers postdoctoral clinical and basic research fellows (M.D. and/or Ph.D.) a minimum of two years of intensive basic research training in a multidisciplinary program in CHD. This program will provide the knowledge, skills, and motivation for young scientists to become independent and productive investigators in vascular biology and cardiovascular research. Hands-on training will be provided in areas related to the biochemical, molecular, and cellular pathophysiologic mechanisms underlying the initiation, mechanisms, and consequences of CHD.

Inquiries: **Francois M. Booyse, Ph.D., The Division of Cardiovascular Disease, University of Alabama at Birmingham, 845 South 19th Street, BBRB 809 (Box 4), Birmingham, AL 35294-2170.**

POSTDOCTORAL RESEARCH POSITIONS

Available immediately for Ph.D., M.D. in a strong interdisciplinary group of scientists within the East Carolina University School of Medicine Center for Alcohol and Drug Abuse Studies. Research experience desired in areas of psychopharmacology and neurochemistry with background helpful in CNS techniques including microinjection, cerebral dialysis, push-pull perfusion, and chromatographic separation of serotonin and catecholamine neurotransmitters. State of the art procedures including peptide synthesis, radioligand receptor analysis, and antisense technology are available. Send curriculum vitae and three letters of recommendation to: **Professor R. D. Myers, Department of Pharmacology, School of Medicine, East Carolina University, Greenville, NC 27858.** Federal law requires proper documentation of identity and employability at the time of employment. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL ASSOCIATE(S) to determine how metabolites and ions regulate the activity of intracellular Ca^{2+} channels. Studies will focus initially on the Ca^{2+} release channel/ryanodine receptor in malignant hyperthermia, an inherited syndrome that results from a mutation in this protein (see *American Journal Physiology* 266: C1729-C1735, 1994; *ibid.* 267: C1253-1261, 1994). Ph.D. by start date. Must have training in electrophysiology; expertise in single channel analysis preferred. Enquiries to: **Dr. Charles F. Louis, Department of Veterinary Pathobiology, University of Minnesota, Room 295, 1988 Fitch Avenue, St. Paul, MN 55108.** Telephone: 612-624-4202. *The University of Minnesota is an Equal Opportunity Educator and Employer.*

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIPS COMPLEX SYSTEMS Studies at the Santa Fe Institute

The Santa Fe Institute (SFI) expects to have an opening for one or more postdoctoral fellows beginning in September, 1996. The Institute's multidisciplinary research program is devoted to the study of complex systems, especially complex adaptive systems. For more information about SFI's Postdoctoral Fellowship see <http://www.santafe.edu/sfi/visitor/postdoc-ad.html>.

All application materials must be received by February 15, 1996. Decisions will be made by April 1996. Applicants should submit a curriculum vitae, list of publications, statement of research interests, and three letters of recommendation. Incomplete applications will not be considered. Send complete application packages only, preferably hard copy, to: **Postdoctoral Committee, Santa Fe Institute, 1399 Hyde Park Road, Santa Fe, New Mexico 87501 USA.** Include your Email address and/or FAX number.

SFI is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

GRADUATE, POSTDOCTORAL, SABBATICAL TRAINING OPPORTUNITIES IN BIOLOGY OF TRANSGENIC PLANTS

DOE/NSF/USDA-sponsored fellowships at North Carolina State University (NCU) and CIBA GEIGY Agricultural Biotechnology Research Unit are available to study (1) use of transgenic technologies to enhance disease resistance in important crop species and (2) epigenetic phenomena influencing transgene expression and inheritance. Further information and application materials may be obtained from: **Nicole Burdick, Department of Botany, Box 7612, NCSU, Raleigh, NC 27695-7612.** Telephone: 919-515-2727; FAX: 919-515-3436; Email: nicole_burdick@ncsu.edu. Inquiries from established industrial or academic scientists interested in three-month sabbaticals are also encouraged. Review of applications will begin December 1, 1995. *NCU is an Equal Opportunity Employer.*

NSF GRADUATE RESEARCH TRAINEESHIPS ENVIRONMENTAL BIOLOGY CONSERVATION OF BIODIVERSITY University of Massachusetts Boston

The National Science Foundation has awarded Graduate Research **TRAINEESHIPS** to the Department of Biology as part of our Doctoral Program in Environmental Biology. The Traineeship Program is an integrative approach to the evolution, maintenance, and conservation of biodiversity. Faculty interests include marine ecology, tropical forest ecosystems, environmental physiology, behavioral ecology, microbial ecology, remote sensing, GIS, and the genetics and evolution of natural and domesticated populations. We invite applications from individuals who are U.S. citizens or permanent residents with a Bachelor's or Master's degree in biology, environmental sciences or related areas. For more information and application forms, please contact: **Dr. Richard V. Kesseli, Graduate Program Director, Department of Biology, University of Massachusetts Boston, 100 Morrissey Boulevard, Boston, MA 02125-3393.** Telephone: 617-287-6641; FAX: 617-287-6650; Email: bio_grad@umb.edu. *An Affirmative Action/Equal Opportunity/Title IX Employer.*

REYNOLDS RICH SMITH FELLOWSHIP PROGRAM

Harvard Medical School offers the Reynolds Rich Smith Fellowship for research training in the developmental biology and function of the central nervous system relevant to the prevention and treatment of autism and related diseases. The fellowship is open to M.D.'s or M.D./Ph.D.'s who have completed, or are in the process of completing, requirements for board certification in neonatology or neurology, and who will devote a majority of their time to training in research with a Harvard Medical School faculty member. The program provides salary, based on level of training, and research funds for one year with opportunity for renewals. Applicants should submit curriculum vitae, research proposal (not more than two pages), and a letter from the faculty research sponsor by February 1, 1996 to: **Merton Bernfield, M.D., Director, Joint Program in Neonatology, 300 Longwood Avenue, Boston, MA 02115.** *An Affirmative Action/Equal Opportunity Employer.*

*2nd International Conference on
Functional Mapping of the
Human Brain*

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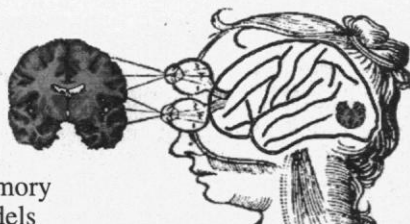
June 17—21

Call For Abstracts:

To be Received by January 31, 1996

Session Topics

- Sensory System
- Motor System
- Language
- Cognition
- Brain Disorders
- Learning & Memory
- Methods & Models
- Aging & Development



For Information contact:

Organization for Human Brain Mapping
220 Longwood Ave.
Goldenson B-231
Boston, MA 02115 USA

FAX: (617) 432-0057
email: hbm96@nmr.mgh.harvard.edu
www: <http://www.nmr.mgh.harvard.edu/HBM96/Boston.html>

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Postdoctoral Scientist

SmithKline Beecham, a worldwide leader in pharmaceutical research, has a challenging opportunity for a Postdoctoral Scientist to join our Physical and Structural Chemistry Department.

The selected individual will establish scanning probe microscopy techniques for exploratory research in chemical and cellular sciences. Topics of interest include: surface chemistry for drug discovery applications; molecular recognition at organic and biological surfaces; and ultra-structures of biomaterials.

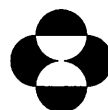
Qualified candidates will have a Ph.D. in Chemistry, Biochemistry or Biophysics with a strong background in one or more of the following areas: AFM, STM and related techniques; organic surface modification and characterization; and Langmuir-Blodgett films. Excellent oral and written communication skills are essential.

Located in our modern, state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers an excellent compensation/benefits package and a stimulating team environment. For confidential consideration, send resumes to: SmithKline Beecham Pharmaceuticals, Job Code H5-0314, P.O. Box 2646, Bala Cynwyd, PA19004. We are an Equal Opportunity Employer, M/F/D/V.



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POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP

In cell biology/immunology available immediately for work on marrow cells and cytokines in genetic studies of mice dealing with regulation of marrow/bone cell interactions. Ph.D. required and position involves interactions with a large, multidisciplinary lab of Ph.D.s and M.D.s. Salary and benefits are competitive. Apply to: Ms. C. Farrell, Pettis VA Medical Center (151), 11201 Benton Street, Loma Linda, CA 92357.

FLORIDA ATLANTIC UNIVERSITY PRE AND POSTDOCTORAL FELLOWSHIPS NIMH National Training Program in Complex Systems and Brain Sciences

PREDOCTORAL and POSTDOCTORAL FELLOWSHIPS are available, funded by NIMH (Division of Basic Brain and Behavioral Sciences). Individuals with undergraduate degrees in pertinent disciplines are invited to apply for this five-year training program leading to the Ph.D. degree in complex systems and brain sciences. The Program is administered through the Center for Complex Systems, established in 1985. The aim of the Program is to couple theoretical concepts and methods for handling complex systems to specific experimental research in the cognitive and brain sciences. For more information, see our WWW page at <http://bambi.ccs.fau.edu/ccs.html>.

Graduate training consists of a core curriculum in non-linear dynamics and neuroscience (including computational modeling and cognitive science). Postdoctoral candidates should have a strong interdisciplinary interest.

Research areas include: sensorimotor co-ordination and learning, human brain imaging and event related potentials, brainstem mechanisms of behavior, neural growth and development, ion channel dynamics, speech production and perception, neurolinguistics, visual perception, mathematics of complex systems, fractal characterization and simulation, nonlinear dynamics, neural networks and robotics.

Applicants should send a letter of interest, GRE scores (graduate fellows only), curriculum vitae, and three letters of reference to: Professor J. A. S. Kelso, Director, Program in Complex Systems and Brain Sciences, 777 Glades Road, Boca Raton, FL 33431. *Equal Opportunity/Affirmative Action Employer.*

USDA, Agricultural Research Service (ARS), Appalachian Fruit Research Station, Kearneysville, West Virginia, announces an interdisciplinary **SUPPORT SCIENTIST** position for a horticulturist with specialized knowledge and skills in plant tissue culture, genetic transformation of plants, and molecular biology. The incumbent will be part of a multidisciplinary fruit crop improvement research group. Research will focus on the transformation of deciduous perennial fruit species. Salary range is \$29,898 to \$36,174, commensurate with experience. U.S. citizenship required. For a copy of the vacancy announcement, including application procedures and forms, contact Janie Carr in Personnel, Telephone: 301-344-4569. For further information on the scientific program, please contact: Dr. Ralph Scorza, USDA, ARS, Appalachian Fruit Research Station, 45 Wiltshire Road, Kearneysville, WV 25430. Telephone: 304-725-3451, x322. For a copy of the announcement, including procedures, contact: Janie Carr, Telephone: 301-344-1921.

USDA, Agricultural Research Service
Personnel Operations Branch, NS
8305 Ivy Lane, Room 328
Greenbelt, MD 20770-1435

An Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE

We are looking for an individual who will join a team currently investigating neurochemical basis for the behavioral effects of Pb exposure. The preliminary studies of this project have been published in *Neurotoxicology*, 16(2): 297-308, 1995 and *J. Neurochem.*, 65(4):1631-1635, 1995. Primary responsibilities include developing and implementing protocols to measure operant behavior Pb-exposed rats. Qualifications: Ph.D. in neuropharmacology, neurotoxicology, or neurobiology with experience in operant behavior measurement techniques. Background in functional organization of brain and histological techniques desirable. Salary: \$31,100 per year. Send letter résumés to: Dr. Arun L. Jadhav, College of Pharmacy and Health Sciences, Texas Southern University, 3100 Cleburne Street, Houston, TX 77004.

POSITIONS OPEN

POSTDOCTORAL POSITION available immediately to conduct research in the general area of cancer experimental therapeutics with particular emphasis on molecular mechanisms of drug resistance. Position would involve work on leukemia and cancer cells to determine the molecular signalling and biochemistry of apoptosis as well as transfection and expression of genes that may regulate apoptosis in human leukemia and cancer cells. Send curriculum vitae and names of three references to: Kapil N. Bhalla, M.D., Professor of Medicine, Division of Hematology/Oncology, Winship Cancer Center, 1327 Clifton Road, N.E., Atlanta, GA 30322. *Emory University is an Equal Employment Opportunity/Affirmative Action Employer.*

STAFF SCIENTIST/DIRECTOR

Leader in the development and manufacture of medical devices based on living human cells offers exciting career opportunity for energetic candidate to provide vascular biology expertise to rapidly developing program. Responsibility for overseeing data analysis, project management, and supervising two to four direct reports. Must have previous research in vascular biology and demonstrated ability to work independently. Ph.D. in biological sciences or engineering and two to four years of postdoctoral experience required. Competitive salary and benefits package extended. Please send résumés to: **Human Resources Manager, ORGANOGENESIS, 150 Dan Road, Canton, MA 02021.** *An Equal Opportunity Employer.*

INTERNATIONAL CLINICAL RESEARCH CORPORATION (ICRC)

ICRC, a Quintiles company, is a growing contract research organization specializing in the management of CNS clinical drug development research. We are seeking qualified individuals for the following positions:

SENIOR CLINICAL RESEARCH ASSOCIATE/CRA. Will monitor CNS clinical drug trials conducted throughout the U.S. Ideal candidate will have minimum of three years of experience as a CRA. 50% travel required.

REGULATORY SPECIALIST. Will supervise and coordinate regulatory affairs staff by overseeing the review and compilation of documents for IND, NDA, and IDE submission and organizing and planning regulatory submissions. Requires B.S. degree in a life or medical science with demonstrated competence coordinating regulatory services with a thorough understanding of U.S. IND, NDA, and IDE regulations.

We offer a comprehensive benefits package and an excellent work environment. Please forward résumé and salary history to: ICRC, Attention: HR/S, 5160 Carroll Canyon Road, San Diego, CA 92121. FAX: 619-552-8596. *Equal Opportunity Employer.*

SYMPOSIUM

GERMAN-AMERICAN ACADEMIC COUNCIL SECOND PUBLIC SYMPOSIUM

"New Horizons in Research and Higher
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Opportunities"

December 14-15, 1995
National Academy of Sciences
Washington, DC

Co-chairs: Robert McC. Adams, Secretary Emeritus, Smithsonian Institution; Ernst-Joachim Mestmäcker, Max-Planck Institute for International and Civil Law. Keynote address: Frank Press, Carnegie Institute of Washington. Speakers: Robert Walker, Chairman, House Committee on Science; Cornelia Yzer, Parliamentary State Secretary, German Federal Ministry for Education, Science, Research, and Technology; Harold Shapiro, Princeton University; Jürgen Mittelstraß, University of Konstanz; Richard Mahoney, Chairman and CEO Retired, Monsanto Company; Günter Stock, Schering AG, Berlin; Kenneth Prewitt, Social Science Research Council; Klaus Hahlbrock, Max-Planck Institute for Plant Breeding. Summary: Reimar Lüst, Alexander von Humboldt Foundation. Information and registration forms may be obtained from: GAAC Washington Office, 1055 Thomas Jefferson Street, Suite 2020, Washington, DC 20007. Telephone: 202-296-2991; FAX: 202-833-8514; Email: gaac@nas.edu.

MINORITY FELLOWSHIP

University of Idaho **DOCTORAL FELLOWSHIPS** available for fall 1996: 1) WICHE Doctoral Fellowship for Engineering and Computer Science. Full tuition and fees plus \$9,000 living expenses up for three to five years. 2) National Physical Science Consortium. Two doctoral fellowships available for physical science degree programs. Full tuition and fees with living stipend at \$15,000 per year. Contact: Professor Linda Morris, Telephone: 208-885-2958; Email: ljmorris@uidaho.edu.

COURSES AND TRAINING

1996 COURSE ANNOUNCEMENT GENETIC ANALYSIS METHODS FOR MEDICAL RESEARCHERS

This intensive four-day course centers on mapping human genetic diseases with emphasis on the mapping of complex common disease phenotypes. The concentration is on the entire disease mapping process, integrating clinical classification, pedigree collection, molecular genetic analysis, statistical analysis, and gene characterization. The course emphasizes the global decision-making process and overall study design. A residential conference center setting promotes extensive interaction between the students and the internationally recognized faculty.

Date and location: April 14-17, 1996, The Center for Executive Education at Babson College, Boston, Massachusetts.

Deadline for completed application: January 15, 1996. For information, write: Dr. Margaret Pericak-Vance, Box 2900, Duke University Medical Center, Durham, NC 27710; or contact: Ms. Nadine Powers, Course Administrator. Telephone: 919-684-6274; FAX: 919-684-6514; Email: genclass@genemap.mc.duke.edu. WWW: <http://www.mc.duke.edu/depts/genetics/courses/index.html>.

SHORT COURSE ON TIME-RESOLVED FLUORESCENCE SPECTROSCOPY

January 8-12, 1996, Baltimore, Maryland
Center for Fluorescence Spectroscopy
University of Maryland School of Medicine

Topics include: principles of fluorescence, time- and frequency-domain measurements and instrumentation, data analysis, anisotropy, quenching, lifetime-based sensing, fiber optics, Förster energy transfer, infrared fluorometry, two-photon excitation, and fluorescence lifetime imaging and microscopy. For outline and registration form, contact: Mary Rosenfeld, Suzy Rhinehart (coordinators) or Prof. J. R. Lakowicz, Department of Biological Chemistry, University of Maryland School of Medicine, 108 North Greene Street, Baltimore, MD 21201. Telephone: 410-706-8409; FAX: 410-706-8408, cfs@sg.ab.umd.edu.

MOLECULAR BIOLOGY WORKSHOPS

The University of New Haven will be offering five intensive (75% hands-on) workshops in 1996: **Introduction to Molecular Cloning**, emphasizing the techniques of DNA amplification, cloning, blot hybridization, and sequencing (January 8 to 12, July 8 to 12, August 12 to 16, tuition \$750); **Differential mRNA Display**, emphasizing the identification and analysis of tissue-specific mRNA amplification (March 11 to 12, tuition \$300); and **Computer Analysis of DNA Sequence Data**, which includes sequence data editing, alignment, database searching, and Internet applications (March 13 to 15, tuition \$450). For further information contact: Chairman, Department of Biology, University of New Haven, 300 Orange Avenue, West Haven, CT 06516. Telephone: 203-932-7107.

CARNEGIE MELLON

Graduate Study in Engineering and Public Policy (EPP) leads to a research-based Ph.D. specializing in policy issues in areas such as: telecommunication, computer and other information technologies; energy and environmental systems (including climate change); technical issues in international security; manufacturing and industrial policy; and risk analysis. Applicants must hold a B.A. or B.S. in engineering, physical sciences, or math. Education or experience beyond the B.S. very desirable. Contact Denise Murrin-Macey, Engineering and Public Policy (002), Carnegie Mellon, Pittsburgh, PA 15213. *Equal Opportunity/Affirmative Action Employer.*

**Graduate Program in
Molecular & Cellular Biology
The University of Illinois at Chicago
College of Medicine**

The Molecular & Cellular Biology Training Program provides interdisciplinary graduate training opportunities for motivated, well-trained individuals. Over 40 faculty members from the departments of Anatomy & Cell Biology, Biochemistry, Genetics, Microbiology & Immunology, Pharmacology, and Physiology & Biophysics participate in the program. Students can choose from many possible areas of research. The faculty and their research are as follows:

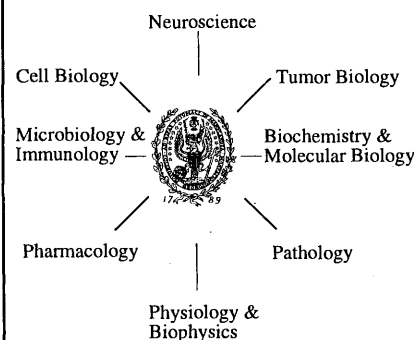
R. Dale Brown. Adrenergic receptors in vascular smooth-muscle.
Ananda M. Chakrabarty. Pseudomonas infection in cystic fibrosis.
Edward P. Cohen. Gene therapy for neoplastic disease.
Rochelle S. Cohen. Estrogen effects on female reproductive behavior.
Karen J. Colley. Intracellular protein localization and glycosylation.
Robert Costa. Tissue-specific gene regulation.
Richard L. Davidson. Mammalian somatic-cell genetics.
Primal de Lanerolle. Gene therapy of vascular injury.
Ervin G. Erdos. Metabolism of peptides and enzyme structure.
Peter G.W. Gettins. Mechanism of action of serpins.
Geula Gibori. Reproductive endocrinology.
Richard D. Green. Receptor-effector coupling.
Andrei V. Gudkov. Recessive genes related to cancer.
Dale B. Hales. Molecular endocrinology and cytokine biology.
Heidi E. Hamm. GTP-binding proteins.
Yee-Kin Ho. Phototransduction.
Lawrence Isaac. Mechanisms of neural injury.
Randal Jaffe. Steroid hormone action.
Amy Kenter. Immunoglobulin gene recombination.
Stephen C.T. Lam. Integrin signal transduction mechanisms.
Lester Lau. Control of cell growth and differentiation.
Guy C. LeBreton. Cardiovascular pharmacology.
Xiubei Liao. NMR structural studies of DNA binding proteins.
Anna Lysakowski. Structure and function in the vestibular system.
Philip Matsumura. Bacterial chemotaxis.
Peter Moore. Recombination in mammalian cells.
Shigehiro Nakajima. Electrophysiology of brain neurons.
Yasuko Nakajima. Signal transduction mechanisms of neurotransmitters.
George Pappas. Host graft interactions of CNS chromaffin cell implants.
Sergey V. Popov. Membrane recycling and neuronal growth.
Mrinalini C. Rao. Regulation of electrolyte transport across epithelia.
Mark M. Rasenick. G protein signaling and the cytoskeleton.
Pradip Raychaudhuri. Cellular transcription regulatory pathways.
Adrienne Rogalski-Wilk. Plasma membrane-actin cytoskeletal systems.
Igor Roninson. Molecular biology of cancer; targeted gene suppression.
Brenda Russell. Muscle growth and adaptation.
Jacqueline Sagen. CNS cellular transplants.
Simon Silver. Bacterial molecular biology; membrane transport.
Randal A. Skidgel. Human Carboxypeptidase M and peptide hormone processing.
R. John Solaro. Molecular biology of cardiac muscle contraction.
Robert V. Storti. Gene regulation during cell differentiation.
Angela Tyner. Epithelial cell differentiation.
David Ucker. Molecular mechanism of physiological cell death.
James R. Unnerstall. Biochemical plasticity in aging.
Karl Volz. X-ray crystallography of proteins.
William E. Walden. Eukaryotic translation regulation and iron metabolism.
Cho-Yau Yeung. Mammalian gene promoters.

Stipends of \$14,000 are available to all doctoral students in the form of tuition-free fellowships. Interested candidates are encouraged to seek application and information from:

MCBTP
c/o Angela Thomas
Dept. of Physiology and Biophysics M/C 901
835 S. Wolcott Ave.
Chicago, IL 60612-7342

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Georgetown University offers a variety of outstanding research training programs in the following areas: **M.D./Ph.D. Program, Undifferentiated Biomedical Sciences Program, Five-Year M.D. Research Track**, and **Interdisciplinary** as well as traditional **Basic Science Ph.D. Programs** which include:



We welcome and encourage applications from women and members of underrepresented minority groups.

For more information on Georgetown's doctoral programs in the biomedical sciences, please contact:

W. Taylor Johnson
Office of Graduate
Biomedical Education
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Medical Center
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Washington, D.C. 20007

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Protein Chemist

Join the team at Parke-Davis, a leader in advanced technology, where some of the most exciting developments in biology, biochemistry and biotechnology are occurring today.

In this position, you will work in collaboration with an interdisciplinary team of scientists to develop and apply analytical biochemistry methods in support of structural and analytical characterization of natural and recombinant proteins. Typical methods in protein chemistry utilized include protein sequencing, proteolytic and chemical digestion, peptide mapping, gel electrophoresis, HPLC, amino acid analysis, and protein purification techniques. Other collaborative structural resources include mass spectrometry, NMR spectroscopy and x-ray crystallography.

Requires a Ph.D. in Biochemistry, Protein Chemistry or equivalent experience, as well as 3-8 years' experience beyond degree in protein characterization. **Reference Job # 95271**

Send resume with list of references to: Human Resources, Box 95271, Parke-Davis Pharmaceutical Research Division, 2800 Plymouth Road, Ann Arbor, Michigan 48105. Equal opportunity employer in action.



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PRIZM Pharmaceuticals, Inc., is a privately held biotechnology company focused on the regulation of cell growth utilizing our growth factor biology expertise. Ongoing research is directed toward the use of new technologies which inhibit target cell proliferation and differentiation. Recent success in our cardiovascular, oncology and ophthalmology programs has created new positions in Preclinical and Process Development.

RESEARCH SCIENTIST OR GROUP LEADER

Assay Development

Candidates must have a Ph.D. or equivalent and in-depth knowledge of immunoassays and bioassays for product release, support of pharmacokinetics, safety, and drug delivery studies. Industry experience and knowledge of GLP/GMP compliance issues are essential; regulatory filing experience is a plus. The candidate must also be a motivated individual with a hands-on approach. A strong scientific background in oncology, growth factors, or cell biology is highly desirable. Research Scientist candidates should have 4-8 years' postdoctoral experience; Group Leader candidates must have 8+ years of experience. *Ref. ADS*

RESEARCH SCIENTIST

Cardiovascular Pharmacology

A broad, hands-on position to develop an independent research program in the area of growth factors and cardiovascular disease is available for a scientist with experience in the evaluation of pharmaceutical or biotechnology products in models of atherosclerosis and restenosis. Industry experience and 4-8 years' postdoctoral experience are highly desirable. A Ph.D./M.D./D.V.M. in Pharmacology, Pathology, or the equivalent is required. A strong scientific background in molecular cardiology, growth factors, immunopathology or cell biology is highly desirable. *Ref. CPS*

RESEARCH SCIENTIST

Immunohistochemistry

The successful candidate should have an M.D./Ph.D. or equivalent and at least 3 years' laboratory experience evaluating antibodies as diagnostic reagents, preferably as tools for immunohistochemistry. This individual should have a strong theoretical understanding of the antibody/antigen interaction, and a proven track record of antibody optimization for immunohistochemistry. Dermatopathology or oncology background is preferred. *Ref. ISS*

RESEARCH SCIENTIST

Protein Purification

This scientist will be responsible for recombinant protein purification, process prevalidation, scale-up, transfer to pilot plant scale, in-process control assays, cGMP documentation (master production batch records), SOPs, audit contract process facilities, and statistical process control. A Ph.D. in biochemistry is required with at least 4 years of industrial experience or an M.S. with at least 8 years' industrial experience, to include protein purification and scale-up in a cGLP/cGMP environment, protein biochemistry and analysis, inclusion bodies isolation, refolding, and final fill/finish steps. *Ref. PPS*

RESEARCH SCIENTIST

Quality Control

This Ph.D.-level scientist will be responsible for QC release assays, cGMP documentation, SOPs, audit contract analytical laboratories, and statistical process analysis. The candidate should have a Ph.D. in biochemistry or analytical chemistry with at least 4 years of industrial experience, or an M.S. with at least 8 years' industrial experience. Experience in protein characterization and analysis in a QC/cGMP environment is required. Hands-on ability to perform HPLC, peptide maps, SDS-PAGE, IEF, Western and micropurification is required. *Ref. QCS*

RESEARCH ASSOCIATE

Oncology and Inflammation

A B.S./B.A. in animal physiology, biology or a related field with at least 5 years of laboratory experience are required to develop and utilize *in vivo* models to assess the efficacy of novel therapeutics for oncology and inflammatory or fibrotic diseases. Animal handling and surgical experience are also required. The preferred candidates will have skills in *in vitro* assays (adhesion, invasion, proliferation, and cell killing), and a knowledge of primary cell isolation techniques and immunoassays. This position involves extensive data analysis and knowledge of statistics. An M.S. and experience with oncology models are desirable. *Ref. OIR*

All positions require excellent verbal and written skills and the ability to work collaboratively with colleagues in a multidisciplinary, team-based environment.

Representative publications by PRIZM employees include *J. Biol. Chem.* 269: 12552, 1994; *J. Cell Physiol.* 162:388, 1995; *Endocrinology* 134:2289, 1994; *J. Clin. Invest.* 96:1336, 1995; and *Cancer* 74:848, 1994.

Please send or fax your C.V. today, referencing position of interest, to: PRIZM Pharmaceuticals, Inc., Human Resources/Ref. _____, 11035 Roselle Street, San Diego, CA 92121, FAX 619/625-0050. An equal opportunity employer.



PRIZM
PHARMACEUTICALS

**The George Washington University
Medical Center**

Invites applications for an Assistant/Associate Professor position in the Department of Anatomy as part of a new expansion of the basic science endeavors in interdisciplinary research programs. The basic science departments of the GWU Medical Center have begun to organize interdepartmental research and graduate training programs with the Columbian School of Arts and Sciences, Children's Research Institute of the Children's National Medical Center, and the Holland Laboratories of the American Red Cross. The successful candidate will find wide collaborative opportunities at these sites, as well as numerous other research institutions in the DC area, and will be expected to contribute to this new collaborative endeavor.

The successful candidate will be an outstanding investigator with substantial potential to develop a vigorous, externally-funded research program in the field of Developmental Neurobiology. Areas of research that are of particular interest are in developmental gene expression, differentiation of specific neuronal and glial types, and neurotransmitters and signal transduction during development. This research program is expected to utilize modern molecular genetic techniques and complement the existing research programs in the department and the interdepartmental Neuroscience Program. The successful candidate is expected to make major contributions to at least one of the interdepartmental graduate programs in Genetics, Molecular/Cellular Oncology and Neuroscience, and will have teaching responsibilities in the medical teaching commitment of the Anatomy Department. Faculty rank and salary commensurate with prior experience.

Applicants should send a letter of intent, a detailed statement of research goals and teaching expertise, curriculum vitae, and the names, addresses and telephone numbers of four references to:

Dr. Sally A. Moody
Chair, Search Committee
Department of Anatomy, Ross 4N4431
2300 I Street, NW
Washington, DC 20037

Review of applicants will commence on December 22, 1995 and continue until position is filled. *The GWUMC is an equal Opportunity/Affirmative Action Employer. Women and minority applicants are encouraged.*

**DIRECTOR
TRANSGENIC ANIMAL FACILITY
Michigan State University**

Applicants are invited to apply for a continuing system appointment to head a newly funded transgenic core facility in the Physiology Department at Michigan State University. The successful candidate will supervise the construction of transgenic animals, i.e., mice, and oversee a staff in the production and maintenance of transgenic animals. The goal of this facility is to provide transgenic animals for use by investigators both within the Physiology Department and in other university departments. In addition, the candidate will be expected to be actively involved in research and participate in departmental teaching programs.

Requirements include a Ph.D. or equivalent, two years or more postdoctoral training, and significant experience in the generation of transgenic animals. Interested individuals should provide a complete curriculum vitae, a brief statement of research interests, experience in construction of transgenic animals, bibliography and copies of key publications or reprints. Applicants accomplishments and future potential for research and teaching. Applications should be sent to: Chairperson, Transgenic Animal Search Committee, Department of Physiology, Michigan State University, East Lansing, MI 48824-1101. Applicants accepted until position is filled.

SENIOR SCIENTISTS

PharmaGenics, Inc., a Fully Integrated Drug Discovery Company, investigates therapeutic and diagnostic agents for cancer and viral diseases. We are seeking highly motivated professionals to conduct research in our Molecular and Cell Biology and Chemistry departments to help advance PGI to the forefront of genomics discoveries.

MOLECULAR AND CELL BIOLOGISTS

Positions available for recent Ph.D.'s with 1-3 years postdoctoral research experience in molecular biology, molecular oncology, cell biology or tumor biology. Candidates should have a strong background in cDNA cloning, protein expression and purification, automated DNA sequencing, or animal models of human cancer. The successful individual will take part in a team effort aimed toward identifying and characterizing novel genes from a variety of tissue sources utilizing the recently described SAGE technology (Science 270:484-487, 1995).

CHEMIST

A Ph.D. chemist is required to design and assemble combinatorial libraries of small molecules. Candidates should possess a broad range of synthetic skills in organic chemistry. Experience in combinatorial chemistry or organic synthesis on solid supports also highly desirable.

PharmaGenics, Inc. is located in a pleasant suburban environment in Northern New Jersey with state-of-the-art facilities. We offer a competitive salary and benefits package along with the growth opportunities and challenges only a leading edge technology company can offer. Please send a current CV including the names and addresses of three references, in confidence to: Mrs. Joyce Magro, PharmaGenics, Inc., 4 Pearl Court, Allendale, N.J. 07401.



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D I S C O V E R Y

COMPUTATIONAL CHEMISTRY

Partnering with our synthetic chemists, you will facilitate our efforts in combinatorial chemistry, chemical diversity, pharmacophore development, lead optimization and structure-assisted drug design. The ideal candidate is independent, creative and possesses a Ph.D. in computational or physical chemistry. Strong programming skills and ability to work in a UNIX environment are required; postdoctoral or pharmaceutical experience is preferred as well as a background in statistical mechanics and Sybyl programming language.

SCIENTIST/INFLAMMATION PHARMACOLOGIST

We seek a dedicated, self-motivated professional with at least 1 - 3 years of relevant experience in *in vitro* analyses of ligand/receptor binding assays using whole cells and membrane fractions. You should have a BS or MS in biology or pharmacology and familiarity with ligand-mediated functional responses of cells. Solid communication skills are desirable.

BS/MS SCIENTIST Medicinal Chemistry

We will rely on your 2 years' experience in synthetic organic chemistry and strong theoretical and laboratory background. This position requires a MS or BS in relevant field and strong verbal and written communication skills.

Pfizer offers rewarding compensation and excellent benefits. Relocation assistance is available. Please send resume suitable for electronic scanning (i.e., eliminate italics, bullets, bolds, underlines and staples to: **Employee Resources, Ad# 1056, Pfizer Inc, Central Research Division, Eastern Point Road, Groton, CT 06340.**

We are an equal opportunity employer M/F/D/V.



**FACULTY POSITIONS
CELL/DEVELOPMENTAL BIOLOGISTS
CELLULAR BIOCHEMISTRY &
BIOPHYSICS PROGRAM
SLOAN-KETTERING INSTITUTE**

The Cellular Biochemistry & Biophysics Program at the Sloan-Kettering Institute of Memorial Sloan-Kettering Cancer Center seeks candidates for tenure-track faculty positions at Assistant and Associate Member levels and at the Member (tenure) level whose research interests concern the interface of cell and developmental biology, including research on neural systems. Specific research topics would include (but are not limited to) cell adhesion, cell-cell interactions, synaptic genesis and plasticity, and cellular and molecular aspects of morphogenesis. Sloan-Kettering offers a highly interactive research environment, with groups working in the areas of molecular biology, developmental biology, cell biology and structural biology.

Please submit a curriculum vitae, a research statement (including present and future research activities), and a list of at least three references by December 1, 1995. Prospective candidates should send applications to: **Dr. James E. Rothman, Chairman, Cellular**



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Sloan-Kettering
Cancer Center**

THE TIME IS NOW.

The best cancer care. Anywhere.

**Biochemistry & Biophysics Program,
Memorial Sloan Kettering Cancer Center, 1275 York Ave.,
Box 251, NY, NY 10021. EOE/AA.**

POSITION ANNOUNCEMENT

Position: Assistant Professor of Atmospheric Science, Department of Soil and Environmental Sciences, and Assistant Research Scientist, Statewide Air Pollution Research Center (SAPRC). Salary and compensation shall be determined within allowable University parameters.

Date Available: July 1, 1996

Responsibilities: This 9 month tenure-track position is 60% teaching (Soil and Env. Sci.) and 40% research (SAPRC). The individual is to carry out research in atmospheric science that will complement current research being conducted at the University of California, Riverside. A particular research area of interest is that involving atmospheric particulate matter, including research into the formation, transport and transformations of particles and particle-associated chemicals in the atmosphere. The individual will teach undergraduate course(s) in environmental science and have the opportunity to teach a graduate course in their area of specialty.

Qualifications: Candidates must have met all requirements of Ph.D. within one year of appointment in a relevant discipline, and a background in atmospheric science. Candidates must possess a strong commitment to teaching excellence, and have the ability to conduct an innovative and vigorous research program.

Application Procedures: Candidates for this position are requested to submit a curriculum vita, a statement of research interests and teaching interests, transcripts and any supporting information to Roger Atkinson, Department of Soil and Environmental Sciences, University of California, Riverside, CA 92521. Applicants must also request at least three individuals to write letters of recommendation on their behalf. Applications will be accepted until January 15, 1996.

The University of California, Riverside, is an Affirmative Action/Equal Opportunity Employer.

GLOBAL CAREER OPPORTUNITIES

**THE UNIVERSITY OF GENEVA
(SWITZERLAND)**

FACULTY OF MEDICINE

is seeking qualified candidates for a position of:

**Full or Associate
Professor**

of Experimental Pathology

The academic level (Full Professor or Associate Professor) will be determined by the candidate's qualities with regard to research and teaching. Candidates should board certified in Pathology or equivalent, and demonstrate ability to direct a research program and to ensure pre-and post-graduate teaching.

Please send application, curriculum vitae and list of publications before December 22, 1995 to:

**The Dean of the Faculty of Medicine
Centre Medical Universitaire
Rue Michel-Servet 1
CH 1211 Geneva 4**

where further information can be obtained. Women are encouraged to apply.

UCLA

Assistant Professor

Molecular Cardiovascular Physiology

The Department of Physiology at the UCLA School of Medicine invites applications for a tenure-track faculty member interested in using new models, such as transgenic animals, to understand the physiology of the cardiovascular systems. Candidates are expected to have a strong training and background in the biomedical sciences, have a Ph.D. and/or M.D. degree and proficiency in molecular biology. The successful candidate will be expected to develop an independent research program and to participate in the teaching mission of the Department. An excellent environment exists with the Department and School to build an academic career. This includes newly remodeled laboratory space, set-up funds, core resources and other active research programs in membrane, cell and cardiovascular biology. Applicants should send a letter with a statement of research interests and goals, names of three references and their curriculum vitae to:

**Chair, Cardiovascular Search Committee
UCLA School of Medicine
Department of Physiology
10833 Le Conte Avenue
Los Angeles, CA 90095-1751
Email:
dmoorehe@physiology.medsch.ucla.edu**

Faculty Position Biochemical Engineering



Applications are invited for a tenure-track faculty position available July 1, 1996. The position is jointly between the Center for Agricultural Biotechnology (CAB) of the University of Maryland Biotechnology Institute and the Department of Chemical Engineering at the University of Maryland, College Park. CAB is an interdisciplinary research center, with 18 faculty (16 molecular biologists, 2 biochemical engineers), focusing on the molecular biology of plant-pathogen interactions, poultry virus and vaccine production and insect genetic engineering. Research programs also integrate molecular genetics and biochemical engineering approaches to the study of gene expression, environmental protection, and natural resource utilization. In Spring '96, CAB will reside in a new Plant Sciences building to open on the College Park campus. The Department of Chemical Engineering has in the past year grown to 14 faculty members with central research topics including polymers, bioengineering, process systems and control, phase equilibria, particulate matter and aerosols, and transport phenomena. The appointee is expected to build an independent research program that complements strengths of CAB and Chemical Engineering. Candidates with research interests that bridge these strengths (e.g., bioseparations or bio-transformations) are encouraged to apply. CV, statement of research interests, reprints of relevant publications, and three references should be sent to Dr. William Bentley, Search Committee Chair, CAB, University of Maryland, College Park, MD 20742-3351. Phone: (301) 405-1906. Applications will be reviewed January 15, 1996, until a suitable candidate is identified.

*Women and minority candidates are encouraged to apply.
The University of Maryland is an
Equal Opportunity/Affirmative Action Employer.*



CORNELL UNIVERSITY GRADUATE SCHOOL OF MEDICAL SCIENCES

GRADUATE STUDY TOWARD THE PHD OR MD-PHD DEGREE IN THE BIOMEDICAL SCIENCES

The Cornell University Graduate School of Medical Sciences, composed of faculty drawn from Cornell University Medical College and the Sloan-Kettering Institute for Cancer Research, provides opportunities for graduate study leading to the PhD or combined MD-PhD degree in various fields of biomedical sciences. Programs of study include *Biochemistry and Structural Biology, Cell Biology and Genetics, Immunology, Molecular Biology, Neuroscience, Pharmacology, and Physiology and Biophysics*. Special funding is available for interdisciplinary training in *Molecular and Cellular Biology and in Molecular Medicine*.

Successful applicants will be awarded full graduate fellowships covering living expenses and tuition. Low-cost university housing is available for all students, and the student health plan provides ambulatory care and hospitalization for all registered students and their qualifying dependents.

The Cornell University Graduate School of Medical Sciences is part of the New York City Campus of Cornell University at Ithaca, New York. It is a component of a large biomedical research complex extending along York Avenue on Manhattan's East Side, including Cornell University Medical College-New York Hospital, The Memorial Sloan-Kettering Cancer Center, The Hospital for Special Surgery, and the Rockefeller University. These institutions constitute one of the world's outstanding centers for biomedical research and education, as well as for medical diagnosis and treatment.

The Cornell University Graduate School of Medical Sciences is committed to the successful recruitment and training of qualified women and members of underrepresented minority groups, including, but not limited to, African Americans, Alaskan Natives, American Indians, Hispanic Americans, and Pacific Islanders.

Cornell University is an Equal Opportunity/Affirmative Action Employer

To receive additional information and an application kit, call or write to:

Cornell University Graduate School of Medical Sciences
445 East 69th Street, New York, NY 10021
tel: 212-746-6565; fax: 212-746-8906

INTERDISCIPLINARY PROGRAM IN BIOMEDICAL SCIENCES AT THE

UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

A combined admission program in Biomedical Sciences leading to the Ph.D. has been established at the University of North Carolina at Chapel Hill. Students receive a fellowship of \$13,500 plus tuition and fees. During the first year the students choose from a broad range of courses and do three research rotations. They select their research advisors from over 150 faculty. At the end of the first year they select a Ph.D. program based on their research interests and the affiliations of their advisor. The Ph.D. programs include Biochemistry and Biophysics, Biomedical Engineering, Biology, Cell Biology and Anatomy, Genetics and Molecular Biology, Microbiology and Immunology, Neurobiology, Pathology, Pharmacology, Physiology, and Toxicology. For information about the program contact:

William Marzluff
CB# 7100, 101 MBBRL
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7100
(919) 962-8920
E-Mail: IBMS@med.unc.edu



NATIONAL SCIENCE FOUNDATION (NSF)

NSF's Division of Biological Instrumentation and Resources (BIR), the Division of Environmental Biology (DEB), the Division of Integrative Biology and Neuroscience (IBN) and the Division of Molecular and Cellular Biosciences (MCB) seek qualified applicants to serve as Program Directors under the provision of NSF's Rotational Program in the areas listed below. Responsibilities include research proposal evaluation, budget development and scientific planning. Broad knowledge and specific research accomplishment are key qualifications. Positions will be filled on a one- or two-year rotational/temporary basis beginning late summer/early fall 1996. The current salary range is \$60,925 to \$94,953; qualification requirements are a Ph.D. or equivalent experience plus 6 or more years of research experience beyond the Ph.D.

For information RE: **BIR** programs: Instrumentation, Data Bases, and Computational Biology, call Dr. James H. Brown, 703/306-1470; RE: **DEB** programs: Population Biology, Systematics, Ecology, Ecosystems Studies, Research Collections, Biotic Surveys, and Inventories, call Dr. Thomas E. Brady, 703/306-1480; RE: **IBN** programs: Developmental Mechanisms, Physiology and Behavior, and Neuroscience, call Dr. Bruce Umminger, 703/306-1420; RE: **MCB** programs: Biochemistry, Biophysics, Genetics, and Cell Biology, call Dr. Julius H. Jackson, 703/306-1440.

Applicants must submit a resume or other application format of choice. Application must specify the job title for which you are applying, and should include the following information: country of citizenship; information about education, including major and type and year of degree(s); complete information about experiences related to this job, including job titles, duties and accomplishments, employer's name and phone number, starting and ending dates and year, and salary to: National Science Foundation, Staffing and Classification Branch, Suite 315, 4201 Wilson Boulevard, Arlington, VA 22230. Attn: Catherine Handle. Hearing impaired individuals should call 703/306-0189. NSF is an Equal Opportunity Employer committed to employing highly qualified staff that reflects the diversity of our nation.



**CORNELL UNIVERSITY
GRADUATE SCHOOL OF MEDICAL SCIENCES**

announces a

Summer Internship Program for Minority College Students

The Cornell University Graduate School of Medical Sciences, located in New York City, is a semi-autonomous component of the Graduate School of Cornell University at Ithaca. It provides training leading to the Ph.D. degree in specific areas of the biomedical sciences. The school, which is composed of faculty drawn from Cornell University Medical College and The Sloan-Kettering Institute, has established a summer internship program for training under-represented minority college students in the biomedical sciences. The objective of the program is to awaken and foster an interest in biomedical research and it is aimed at students who plan to attend graduate school to get a Ph.D. degree. This program is open to students who have successfully completed their freshmen, sophomore, or junior years in college.

The program consists of semi-independent research projects carried out in laboratories at either Cornell University Medical College or Sloan-Kettering Institute, a seminar course on opportunities and career tracks for doctorates in the biomedical sciences, and a weekly journal club. Dates for the program are: **June 10 to August 2, 1996. Deadline for applying is February 1, 1996.**

Subsidized housing, a modest food allowance and a stipend of \$3,000.00 will be provided for the 8-week program. Students must have medical insurance for the period involved. Applicants must be U.S. citizens or have permanent visa status.

This program is supported in part by:

1. The Cornell University Graduate School of Medical Sciences and the Sloan-Kettering Institute.
2. A training grant from the National Institutes of Health, National Heart, Lung, and Blood Institute.

To receive additional information and an application form call or write to:

Ms. Francoise Freyre, Program Administrator
Cornell University Graduate School of Medical Sciences
445 East 69th Street, New York, NY 10021
Phone: 212-746-6120
Fax: 212-746-8906

Director

Program in Human and Medical Genetics

The University of Colorado Health Sciences Center, in Denver, seeks candidates for the position of Director of a newly formed program in Human and Medical Genetics. Entities involved in this program include the Schools of Medicine, Dentistry, Nursing, Pharmacy, the Eleanor Roosevelt Institute for Cancer Research, and The Children's Hospital. The Program Director is expected to integrate already substantial efforts in clinical genetics and genetics research and education on the campus, to develop new research initiatives, and to develop and direct a doctoral program in human and/or medical genetics. The successful candidate should be a senior M.D., M.D./Ph.D. investigator with a national or international reputation in basic and/or clinical genetic research. Administrative experience, and the ability to lead and interact effectively with clinical, training, genetic counseling programs and with the community, are essential attributes. The University of Colorado Health Sciences Center is prepared to commit substantial resources to this position, including competitive personal compensation and start up funds for the Director, faculty positions, research space, and funds for program initiatives. Review of applicants will begin on Jan. 15, 1996, and continue until a successful candidate is identified. Letters of interest, together with c.v., should be sent to:

Stephen I. Goodman, M.D., Head
Genetics Search Committee, Box B-161
University of Colorado Health Sciences Center
4200 East Ninth Avenue
Denver, Colorado 80262

The University of Colorado Health Sciences Center is committed to equal opportunity and affirmative action.

**POSITION ANNOUNCEMENT
CURATOR OF BIRDS
UNIVERSITY OF ALASKA MUSEUM**

The University of Alaska Museum seeks qualified applicants for the position of Curator of Birds. The successful applicant will also be appointed Assistant Professor (tenure-track) in the Department of Biology and Wildlife and be affiliated with the Institute of Arctic Biology.

The appointee is expected to curate and develop the large Nearctic collection of birds, teach one course/year (including ornithology or an area of specialty that could include systematics or another area of comparative biology), supervise graduate students, and establish a rigorous extramurally funded research program complementing UAF's strong emphasis in evolutionary and avian biology. Applicants with backgrounds in comparative biology, including molecular biology, are encouraged to apply, although all relevant applications will be considered. An earned Ph.D. in biology or related field by March 1, 1996 is mandatory and post-doctoral experience is preferred.

A curatorial assistant, laboratory space and start-up funds are included in this appointment. The appointment is expected to begin in January of 1997.

Send applications including statements of research interest, teaching philosophy, and curatorial experience, a curriculum vitae and three letters of reference by January 1, 1996 to:

Chair, Curator of Birds Search Committee
Department of Biology and Wildlife
University of Alaska Fairbanks
Fairbanks, Alaska 99775-7000

or contact Dr. Gerald F. Shields at:

Phone (907) 474-7656

Fax (907) 474-6967

E-mail gshields@redback.liter.alaska.edu

The University of Alaska is an Educational Institution and an EEO and Affirmative Action Employer. Your Application for Employment with The University of Alaska May Be Subject to Public Disclosure.

**ASSISTANT/ASSOCIATE PROFESSOR
Pathobiology**

The Division of Microbiology and Immunology in the Department of Pathobiology at the College of Veterinary Medicine, University of Illinois at Urbana-Champaign invites applications for a full-time tenure-track faculty position at the Assistant or Associate Professor level. Successful candidates must have a PhD, or DVM/PhD, or MD/PhD degree, a minimum of two years of postdoctoral research experience, and an excellent publication record demonstrating expertise in using molecular and cellular approaches in research problems in microbiology or immunology. The successful candidate will be expected to establish a strong independent research program, mentor graduate students, and participate in a team-taught bacteriology/mycology course in the professional curriculum for veterinary students. Research areas of particular interest include, but are not limited to, molecular aspects of enteric disease pathogenesis, emerging pathogens, and food borne pathogens. Starting date, August 1996. Salary is competitive and commensurate with experience and qualifications.

The Department of Pathobiology is a multidisciplinary department that offers outstanding physical facilities and numerous opportunities for inter- and intradepartmental collaboration in both basic and applied research. Areas of research interest in the Division of Microbiology and Immunology include bacteriology, immunology, opportunistic infections, and parasitology. The University of Illinois at Urbana-Champaign provides an impressive academic research environment including the maintenance of a comprehensive and state of the art Biotechnology Center. The Biotechnology Center is composed of separate flow cytometry, hybridoma production and immunologic methodology consultation, transgenic animal, molecular biology, fermentation, molecular graphics, and X-ray crystallographic facilities. Applicants should submit a curriculum vitae, a description of research interests and future plans, and have at least three letters of reference sent by January 30, 1996, to:

Mark S. Kuhlenschmidt, Chair
Search Committee
Department of Pathobiology
College of Veterinary Medicine
University of Illinois
2001 S. Lincoln Ave.
Urbana, IL 61801
(217) 333-9039

The University of Illinois is an Affirmative Action Equal Opportunity Employer

Minority Traineeships in Oceanography

The Woods Hole Oceanographic Institution offers special educational opportunities in oceanography for minority undergraduate U.S. citizens or permanent residents. These awards are designed to provide training and research experience in Woods Hole for students who have completed at least two semesters of undergraduate study in physical or natural science, mathematics, or engineering and have an interest in oceanography or oceanographic engineering.

Traineeships may be awarded for a ten to twelve week period in the summer or for a semester during the academic year and may be renewed the following year. The Trainee is paid a stipend of \$325 per week, plus round trip travel to Woods Hole. This program is jointly sponsored with the:

Northeast Fisheries Service Center, National Marine Fisheries Service, NOAA and the Branch of Atlantic Marine Geology, U.S. Geological Survey

Application deadline for Summer 1996 is March 1, 1996.

**WOODS HOLE
OCEANOGRAPHIC
INSTITUTION**

Write for application forms to:
Education Office, MS #31
Woods Hole Oceanographic
Institution
Woods Hole, MA 02543-1541
or call (508) 457-2000, ext. 2219



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MOLECULAR VIROLOGY AND HOST DEFENSE

Scientist

SmithKline Beecham Pharmaceuticals, a worldwide leader in pharmaceutical research and anti-infectives, is seeking a scientist to join the Department of Molecular Virology and Host Defense.

The successful candidate will operate a flow cytometry facility supporting research efforts in experimental hematology, molecular virology and microbiology research. The job includes sample analysis, maintenance and troubleshooting of equipment, consulting with department members on their needs and encouraging and contributing to the development of new methods to meet these needs.

Qualified candidates will have at least a BS in Biology or related field; a minimum of 3-5 years' flow cytometry experience, preferably with hematopoietic cells; expertise in single and two-color analysis; and analysis for DNA content and apoptosis. The candidate should have experience in troubleshooting and maintenance of flow cytometry equipment. The ability to communicate and work effectively with department members is required. Computer, tissue culture and/or microbiological flow experience are preferred. Experience with cell sorting is a plus.

Located in our modern, state-of-the-art research facility in suburban Philadelphia, SmithKline Beecham offers an excellent compensation/benefits/relocation package. Interested candidates should send resumes with salary requirements to: SmithKline Beecham Pharmaceuticals, Job Code H0463, P.O. Box 2646, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.



SmithKline Beecham
Pharmaceuticals

Challenging the natural limits.

Director of a New Multidisciplinary Clinical Research Program in Neurodegenerative Diseases

The University of Connecticut School of Medicine is seeking a senior level clinical researcher to develop and lead a new initiative in neurodegenerative disease. Building upon existing strengths in the Alcohol Research Center, active neurological research programs in gait and balance, expertise in imaging science, and the acquisition of a new echo planer capable MRI scanner, this new initiative offers opportunities for the integration of clinical research across several disciplines (neurology, psychiatry/neuropsychology, and imaging science). The qualified individual must be able to organize and coordinate a program of clinical research in neurodegenerative disease, to recruit new faculty (also to be supported by the initiative) and to interact with other medical school faculty in ongoing efforts in this area. Significant expertise in some aspect of neurodegenerative disease research using MRI techniques is required. This tenure track position offers an outstanding opportunity to participate in the development of a multidisciplinary clinical research team for the study of neurodegenerative disease, using state of the art MRI technology. Interested individuals should send a curriculum vitae, description of their research interests and qualifications to:

Neurodegenerative Diseases Search Committee
Medical Dean's Office, MC-1920
University of Connecticut School of Medicine
263 Farmington Avenue
Farmington, CT 06030-1920

(SEARCH CODE 95-130)

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SCIENTIST PROTEIN ENGINEERING

Genentech is a pace-setting international biotechnology company that discovers, manufactures, and markets human pharmaceuticals for significant unmet medical needs. We currently have an excellent opportunity for a Scientist with a strong background in structural biology and interests in molecular recognition, protein engineering, and drug design.

You will interact with other scientists in building homology models of unknown or mutated proteins as well as be involved in the design of mutant proteins and combinatorial libraries of mutated proteins and peptides. As an integral member of our Protein Engineering Department, you will play a key role in guiding and interpreting mutational experiments as well as directing an associate. To qualify you should be especially well-versed in the area of protein molecular modeling. Experience with crystallography or NMR would be a plus.

Join us and enjoy our progressive culture, exciting success, and excellent benefits package that includes fully paid medical/dental/vision coverage, free health club membership, and Company stock purchase opportunities. For immediate consideration, please send your resume to Genentech, Inc., Human Resources Dept. CSJW, 460 Pt. San Bruno Blvd., South San Francisco, CA 94080. Genentech is an Equal Opportunity Employer. We value the contributions of our diverse workforce.

Genentech, Inc.

UNIVERSITY OF MINNESOTA

Post-Doctoral Positions Available

Research Opportunities

Candidal Genetics and Pathogenesis
Developmental Immunology
Emerging Infections
HIV Pathogenesis
Molecular Genetics of Antibiotic Resistance
Pathogenesis of Persistent Viral Diseases
Tick-Borne Infections
Tumor Biology
Vaccine Development

Direct Applications to:

Cancer Biology

Peter Plagemann, Ph.D.
University of Minnesota
Box 196 UMHC
420 Delaware St. SE
Minneapolis, MN 55455
Telephone: 612/624-6190
FAX: 612/626-0623

Microbial Pathogenesis and Infectious Disease

Ashley Hasse, M.D.
Box 196 UMHC
420 Delaware St. SE
Minneapolis, MN 55455
Telephone: 612/624-6190
FAX: 612/626-0623

Pediatric Infectious Diseases and Developmental Immunology

Margaret K. Hostetter, M.D.
Box 296 UMHC
420 Delaware St. SE
Minneapolis, MN 55455
Telephone: 612/624-1112
FAX: 612/624-8927

Training program awards are available to applicants who are U.S. citizens or permanent residents. M.D. candidates must have completed a 3-year residency in medicine or pediatrics in an accredited U.S. training program. Applications are eagerly sought from women and minority candidates.

The University of Minnesota is an equal opportunity employer.

DIRECTOR

BELLE W. BARUCH INSTITUTE FOR MARINE BIOLOGY & COASTAL RESEARCH

THE UNIVERSITY OF SOUTH CAROLINA invites nominations and applications for the position of Director of the Baruch Institute, a major research facility at the University of South Carolina. The Search Committee will begin reviewing applications on January 8, 1996.

The Baruch Institute for Marine Biology & Coastal Research is a free-standing unit of the College of Science and Mathematics that provides facilities and resources for faculty and student research. Since the Baruch Institute was founded in 1969, associates have attracted \$24.4 million in external funding; this year's funding is \$4.1 million. Over 1050 scientific articles covering a variety of disciplines have been published, and 250 theses have been generated from student research. There are currently about 60 graduate students and 70 associated faculty conducting research and providing public education on basic and applied problems related to the marine sciences. Utilizing a multidisciplinary approach, the Institute participates in a wide range of studies that involve many departments, institutions, and government agencies. Current projects encompass molecular biology, geochemistry, ecotoxicology, sedimentology, spatial and coastal processes, watershed hydrology, and ecology.

The Institute is housed at the main campus of the University of South Carolina in Columbia and operates the Baruch Marine Field Laboratory on the 17,500 acre Hobcaw Barony near Georgetown on the South Carolina coast. Additional facilities under the Institute's purview are located in Charleston Harbor and at Pritchard's Island near Beaufort.

The Director will be an accomplished, respected scientist with demonstrated excellence in marine research, administration, and communication, as well as entrepreneurial abilities. The successful candidate will be appointed at the rank of Professor in an appropriate academic department and in the Marine Science Program. The Director reports to the Dean of the College of Science and Mathematics.

Letters of Nomination should include the nominee's name, current position, address, tel/fax number(s), and e-mail address. **Applications** should include a letter of interest, a summary of the applicant's qualifications, a curriculum vitae, and the names of five individuals who have been asked to supply references (include each referee's address, tel/fax number(s), and e-mail address). Nominations and applications should be sent to:

Prof. Bruce C. Coull
Chair of Baruch Institute Search Committee
College of Science and Mathematics
University of South Carolina
Columbia SC 29208

Tel: 803-777-3940 • Fax: 803-777-9385 • E-mail: bccoull@sc.edu

The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL RESEARCH POSITIONS

Two to three year positions are available immediately in the molecular genetics laboratory of Richard Straub in the Department of Psychiatry at the Medical College of Virginia. Two projects are funded for the next five years:

Molecular Genetics of Schizophrenia in Irish Pedigrees: project goals are to a) clone the schizophrenia vulnerability locus on chromosome 6, b) identify and confirm additional loci by linkage analysis and other methods and c) clone the additional loci. The primary collaborators are Kenneth Kendler and Charles MacLean.

Detecting Susceptibility Genes for Nicotine Addiction: project goals are to identify genetic loci that influence the susceptibility to cigarette smoking and nicotine dependence. The primary collaborators are Kenneth Kendler, Lindon Eaves and Joanne Meyer.

Applicants should have training and experience in some of the following areas: genotyping, physical mapping, gene identification, mutation detection and DNA sequencing. Experience with the Applied Biosystems DNA sequencer, robotics, and genome informatics is strongly preferred. Salary range is \$25,000 and up depending on experience. The Medical College of Virginia offers a generous benefits package, and the laboratory will soon be located in the new Virginia Biotechnology Research Park.

Please send (do not email) curriculum vitae, summary of research experience and interests, and three letters of reference to: **Richard E. Straub, Director, Molecular Genetics Laboratory, Department of Psychiatry, Box 980710, Medical College of Virginia, Richmond, VA 23298-0710. Virginia Commonwealth University is an Equal Opportunity/Affirmative Action Employer.**

BEHAVIOURAL PHARMACOLOGIST

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pharmacologist

Possessing a PhD and preferably significant post-doctoral experience in the fields of operant techniques and experimental models of anxiety, depression and schizophrenia. The successful candidate will join an interdisciplinary team active in both drug discovery and basic research. A knowledge of French would be an advantage but is not essential.

Please send a CV together with hand-written letter and photo to PUBLIVAL/11009
27 Route des Gardes
92190 MEUDON (FRANCE)



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To receive additional information and an application kit, call or write to:

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The position is for 5 years, carries a salary of about 110,000 DN p.a. (C3 scale of the Bundes-Besoldungsgesetz) and is roughly equivalent to an Assistant Professorship (US) or University Lectureship (UK). There is no teaching commitment.

The group will have modern laboratory facilities, operating expenses, and funding for scientific and technical co-workers.

Applications, including a tabular curriculum vitae, list of publications, and a description of major scientific achievements and future research plans, should be submitted until

January 15, 1996

to:

Max-Planck-Gesellschaft zur
Förderung der Wissenschaften e.V.
-Generalverwaltung-
Postfach 10 10 62
80084 München

RESEARCH GROUP LEADER POSITIONS

The Heart Research Institute seeks to understand the mechanisms of atherogenesis, with the eventual objective of prevention. It also targets practical outcomes such as the development of diagnostic assays for atherosclerosis. The core themes of the Institute are: lipoprotein modification and the influence of anti-oxidants; cell-lipoprotein interactions and lipoprotein traffic; immunological and biochemical diagnostic assays for atherosclerosis. The Institute has a flexible structure (5 groups at present), with both long-term and defined term (5 year) groups. There are opportunities for new groups of both kinds, in any areas related to basic mechanisms of atherosclerosis. Quality is the primary criterion, and applicants should have the potential to raise significant grant funding in additional support of their work.

Salaries are related to the scales of the National Health and Medical Research Council of Australia, and conditions are negotiable.

The Institute occupies a modern facility, with an extension in the planning stages and has excellent equipment for chemical, molecular and cell biological studies. Opportunities for clinical and other collaboration are good, through links with Royal Prince Alfred Hospital (adjacent to the Institute) and Universities in Sydney. Funding is from NHMRC, NHF, ARC and through commercial arrangements.

Applicants should provide a one page synopsis of their research plan and its relevance to atherosclerosis, together with a full cv, bibliography, three selected reprints and the names of three referees. Application will remain open until the positions are filled.

Apply to the Director, Prof Roger Dean
Heart Research Institute, 145 Missenden Road,
Camperdown, Sydney NSW 2050, Australia
Tel: +61 2 550 3560 Fax: +61 2 550 3302
Email: r.dean@hri.edu.au



The Heart Research Institute

**THE CENTER FOR ENVIRONMENTAL RESEARCH AND CONSERVATION
COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK**

The Center for Environmental Research and Conservation (CERC)—a consortium of Columbia University, The American Museum of Natural History (AMNH), The New York Botanical Garden (NYBG), Wildlife Preservation Trust International, and The Wildlife Conservation Society—announces the establishment of the following four new faculty positions. CERC is a multidisciplinary center aimed at promoting education, training, and research in biodiversity conservation by integrating the knowledge and methods of both the biological and social sciences. Appointments will be joint with a relevant department at Columbia and will be five-year positions at the **ASSISTANT PROFESSOR** level. Each candidate is expected to teach at least one core course in the undergraduate (Environmental Biology) or graduate (Ecology and Evolutionary Biology) curriculum of CERC as well as seminars in his/her area of expertise as it relates to conservation and biodiversity studies. Each candidate is also expected to maintain a vigorous research program supported by extramural funding. A willingness to develop integrative and multidisciplinary research and teaching is essential. Opportunities for field research exist in CERC affiliate institutions in Asia, South America, Biosphere 2, and other locations worldwide. For terms beginning with the academic year 1996-97, applications are invited in the following fields:

Community Ecologist: A community ecologist is sought with research and teaching activities focused on nutrient cycling, plant/animal interactions, and/or restoration biology within terrestrial ecosystems. Ability to teach advanced ecology, community ecology, biometry, and related courses desirable. The candidate for this position will work in close collaboration with researchers at Columbia's Lamont-Doherty Earth Observatory and Biosphere 2.

Plant Systematist: A botanist/mycologist with a strong taxonomic publication record is sought to conduct research and teach plant and fungal systematics. Candidates should be familiar with higher level taxa systematics questions, a variety of phylogenetic methods, as well as holding expertise in a specialized group. This position will be affiliated with NYBG.

Animal Systematist: A zoologist with a strong taxonomic publication record is sought to conduct research and teach invertebrate and vertebrate systematics. Candidates should be familiar with higher level taxa systematics questions, a variety of phylogenetic methods, as well as holding expertise in a specialized group. This position will be affiliated with AMNH.

Population Biologist: A population biologist is sought to teach conservation biology, population biology, biometry, and related courses. Specialization in small metapopulation dynamics, demographic or genetic dynamics, and their policy implications would be particularly desired.

Applications, including a curriculum vitae, a statement of research and teaching interests, and three letters of recommendation, will be accepted until December 1, 1995, or until suitable candidates are found. Send to: Dr. Don J. Melnick, Director, Center for Environmental Research and Conservation, Columbia University, Low Library, 535 West 116th Street Room 405, New York, NY 10027. <http://www.columbia.edu/cu/cerc/>

Columbia University is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minorities.

Plant Genetics

RHODES COLLEGE, the Department of Biology seeks applications for the position of Assistant Professor, to begin in August of 1996. The Biology Department seeks applicants whose research interests are in the area of Plant Genetics, however, all qualified applicants will be considered. This is a long-term, renewable position. Teaching responsibilities will include Genetics, another course in the applicant's area of interest, and participation in the team-taught introductory course in Botany. Candidates must have a Ph.D., a strong interest in teaching at the undergraduate level, and a commitment to continuing research in their field.

Rhodes is a coeducational college of the liberal arts and sciences founded in 1848. Rhodes has been related to the Presbyterian Church USA since 1855. The College Statement of Mission will be sent to all applicants and is available on Internet at:

<http://blair.library.rhodes.edu/geninfohtmls/purpose.html>

Rhodes is an equal opportunity employer.

Applicants should submit transcripts, curriculum vitae, a statement of teaching philosophy and research interests, and have three letters of recommendation sent by 5 January 1996 to:

Dr. John Olsen, Chair
Department of Biology
Rhodes College
Memphis, TN 38112

GLOBAL CAREER OPPORTUNITIES

**DIRECTOR OF THE MRC APPLIED
PSYCHOLOGY UNIT**

Applications are invited for the Directorship of the MRC Applied Psychology Unit in Cambridge. The position has become vacant following Professor Baddeley's recent move to the University of Bristol as a member of the Council's External Scientific Staff.

The MRC Unit is recognised to be one of the world's leading centres for research and training in psychology, and forms a significant component of the MRC's investment in the field. Its current research programme is concerned with perception and action, attention and cognitive control, memory, language and communication, neuropsychological rehabilitation, and cognition and emotion. The position of Director offers not only the challenge of developing the Unit's scientific strategy, but as the leader of a major research facility, offers the opportunity to have a significant impact on the field internationally, and also to contribute more broadly to the Council's mission.

The successful candidate will have an outstanding record of achievement in research, and will also be able to demonstrate successful experience of directing and managing a substantial research activity.

The salary is negotiable within the Council's Special Appointments grade (equivalent to University Professorial grade). Council will assist in meeting the costs of relocation.

A job description and other additional information may be obtained from Dr Sara Trevitt, at the Medical Research Council, 20 Park Crescent, London W1N 4AL (Telephone 0171 636 5422, Fax 0171 636 3427, e-mail Sara.Trevitt@HQ.MRC.AC.UK).

Applications should comprise a brief outline of the applicant's views on the future strategic direction of the Unit and brief future proposals for his/her personal research, together with a curriculum vitae, a publications list, and the names and contact details of three referees. These should be sent to Sir Dai Rees, Chief Executive of the MRC, at the above address no later than 22nd December 1995.

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Clinical Research Associate/Ph.D.

The Alfred I. duPont Institute of the Nemours Foundation is a growing, multi-specialty hospital for children. The Department of Clinical Research currently has an opportunity available for a full-time Clinical Research Associate.

This research represents a collaboration between the Gastroenterology Research Program and the Laboratory of Epithelial Cell Biology. Current studies will focus on gastrointestinal epithelial function and alterations which occur during the process of inflammation.

Candidates should have a Ph.D. degree. Cell culture experience and a background in either gastrointestinal inflammation or gastrointestinal cell biology are required.

For consideration, please send resume to: **Roy Proujansky, M.D., Alfred I. duPont Institute, Dept. #7440, P.O. Box 269, Wilmington, DE 19899. FAX: 302-651-5948.** Equal Oppy. Employer, M/F.



POSTDOCTORAL FELLOW QUANTITATIVE TOXICOLOGY

CIIT is an independent, not-for-profit research organization. Our mission is to improve the scientific basis for understanding and assessing the potential adverse effects of chemicals, pharmaceuticals, and consumer products on human health.

We are currently seeking a Postdoctoral Fellow with expertise in Quantitative Toxicology to work on mathematical models of airflow and regional uptake of inhaled materials in the respiratory tract.

The successful candidate will possess a doctoral-level degree in Mathematics or a related quantitative discipline with a strong interest in biological problems or a doctoral-level degree in a biomedical discipline and strong quantitative skills. The successful candidate will be able to function as part of a multidisciplinary team developing simulation models using the computational fluid dynamics software FIDAP. Previous experience in using FIDAP is desired.

CIIT offers competitive salaries, attractive benefits and a stimulating work environment, including co-workers with diverse backgrounds. CIIT is located in Research Triangle Park, NC which offers many cultural and recreational activities, as well as access to three major research universities. Interested candidates should send their CV to: **Human Resources Office, CHEMICAL INDUSTRY INSTITUTE OF TOXICOLOGY, P.O. Box 12137, Research Triangle Park, NC 27709. Please refer to the "Postdoctoral Fellow - Quantitative Toxicology" position. We will accept applications for this position until December 31, 1995.** CIIT is an Equal Opportunity Employer M/F/D/V.




Director, Clinical Pathology Unit Institute for Human Gene Therapy

University of Pennsylvania

The Institute for Human Gene Therapy, at the University of Pennsylvania as an opportunity for an individual to direct a service and research laboratory involved in histopathology, morphology, and assays of immune function. This person will have proven scientific and management skills, strong supervisory skills, and the ability to assist and advise investigators and researchers in the development of projects involving analysis of tissues by immunocytochemistry. Responsibilities include supporting toxicology studies under GLP as well as basic research, developing new technologies in cellular analysis of gene expression, and managing full laboratory staff. Qualifications include a Ph.D. in biologic sciences, three to five years of research experience with two to four years supervisory experience. We offer a competitive salary and a comprehensive flexible benefits package including health and dental coverage. For consideration send resume to **James M. Wilson, M.D., Ph.D., Institute for Human Gene Therapy, University of Pennsylvania Health System, 640 Maloney, 3400 Spruce Street, Philadelphia, PA 19104-4283.**

Pathologist

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The qualified candidate must be a board-certified, or eligible, Clinical or Veterinary Pathologist with a minimum of 2 years experience in Clinical or Research Pathology. Additional training in Microbiology and biomaterials science would be helpful; Immunohistochemistry would be an asset. Position will require a self-motivated team player with excellent written and oral communication skills.

Our Flagstaff, Arizona location offers clean air, mountain living, and a variety of recreational activities. For immediate consideration, please forward your resume by **November 30, 1995** to: **W.L. Gore & Associates, Inc., Attn: Employment Department 12354, P.O. Box 900, Flagstaff, AZ 86002-0900.** Equal Opportunity/Affirmative Action Employer.

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**University of California, Santa Barbara
Environmental Science and Management**

The new School of Environmental Science and Management invites applications for four faculty positions, in the following fields: (i) Applied Ecology; (ii) Environmental Biogeochemistry; (iii) Earth System Science; and (iv) Environmental Policy and Management. Two of these will be tenure-track appointments at the assistant professor level, and two can be at the associate or full professor level. We seek applicants with strong publication records, vigorous, original research programs, evidence of excellence in teaching, and a commitment to a new, interdisciplinary program.

The start date is July 1, 1996. The position is open until filled, but we will give primary consideration to applications received by January 3, 1996. The Ph.D. is normally required at the time of appointment.

(i) Areas of interest for Applied Ecology include: quantitative prediction of short-and long-term ecological effects arising from human activities; development of ecologically sound methods for preventing or mitigating environmental impacts; and management of populations and ecosystems.

(ii) The appointee in Environmental Biogeochemistry will be expected to address the coupling of biological, chemical, geological, and physical processes that occur in Earth's waters, lands, or atmosphere. Issues related to toxicology and pollutant dispersion and fate are relevant to the program.

(iii) The focus of the Earth System Science position is on the linkage and interactions between the lithosphere, hydrosphere, cryosphere, atmosphere, and biosphere. The candidate should complement UCSB's special strengths in aquatic biology, hydrology, geomorphology, and oceanography.

(iv) The Environmental Policy and Management position will involve research and teaching on the array of economic, institutional, legal, and political factors that affect analyses of and solutions to environmental problems.

The School of Environmental Science and Management focuses on the diagnosis and assessment of the environmental problems of today and the future, and the curriculum combines multidisciplinary scientific study with instruction in policy and management. It will enable students to gain an understanding of the complexities of climatic, hydrological, ecological, and human systems at local, regional, and global levels, and to evaluate the consequences of governmental policies and regulations and of industrial practice. We will offer the master's and doctoral degrees and a certificate for mid-career associates, and we expect to admit the first students in Fall 1996.

Applicants should send a curriculum vitae, the names and addresses of four references, a statement of research and teaching interests, and reprints of no more than five publications to **Jeff Dozier, Dean, School of Environmental Science and Management, University of California, Santa Barbara, CA 93106-5131; 805-893-7363; Fax 805-893-7612; E-mail dozier@esm.ucsb.edu.**

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**DEPARTMENT OF PHARMACOLOGY
UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES
ASSISTANT PROFESSOR POSITIONS AVAILABLE**

The F. Edward Hébert School of Medicine of The Uniformed Services University of the Health Sciences (USUHS) invites applications for two tenure-track positions of **Assistant Professor in the Department of Pharmacology**. Applicants must have a Ph.D. or M.D. degree, a vigorous research program with the potential to develop significant extramural funding, an interest in collaborative research, and a commitment to teaching medical and graduate students. Positions are available in the following areas:

Cell Signaling/Signal Transduction

Applications are encouraged from persons using cellular and molecular approaches to study cell to cell, and/or intracellular communication. Individuals applying these approaches to problems in cardiovascular or immunopharmacology are especially encouraged to apply. Contact: Dr. Cinda Helke, Chair, Pharmacology Search Committee 1.

Molecular Toxicology/Drug Metabolism

Applications are sought from persons applying molecular and mechanistic approaches to the study of toxicity of drugs and environmentally-derived xenobiotics. Applications from individuals using these approaches to study drug metabolism are also encouraged. Contact: Dr. Jeffrey Harmon, Chair, Pharmacology Search Committee 2.

Generous start-up packages including equipment and technical support are available. Faculty salaries are fully supported from University resources. Research facilities and environment for professional development are excellent. Review of applications will begin in **January 1996** and will continue until the positions are filled. Applicants should submit a curriculum vitae and bibliography, the names of three references, and a statement of current and future research interests to either: **Dr. C. Helke (position 1) or Dr. J. Harmon (position 2), Dept. of Pharmacology, Pharmacology Search Committee, Uniformed Services University of the Health Sciences, 4301 Jones Bridge Road, Bethesda, MD 20814-4799.** Foreign nationals will be considered only if qualified United States citizens are not available. *USUHS is an Equal Opportunity/Affirmative Action Employer with a strong commitment to racial, cultural, and ethnic diversity.*

The Chemistry Department of the University of South Florida seeks to fill two tenure earning positions, one associate professor and one assistant professor, to start in the fall semester of 1996. Candidates should have a Ph.D. degree in the areas of synthetic Organic Chemistry or Biological Chemistry (Biochemistry, Bio-inorganic chemistry, Bioorganic chemistry). Successful candidates for the assistant professor position will be expected to establish a research program able to attract research funding, and to demonstrate a commitment to quality teaching at both the undergraduate and graduate levels. Successful candidates for the associate professor position will be expected to have shown the ability to establish a research program able to attract research funding, as well as a commitment to quality teaching at both the undergraduate and graduate levels. Funds will be provided to help initiate and/or transfer a research program. The University of South Florida Chemistry Department is a Ph.D. granting department and has consistently ranked nationally in the top 25 schools in the number of undergraduate chemistry matriculants (7th last year). New research laboratories were opened two years ago and these facilities will be complemented within two years by newly renovated additional laboratory space. The usual modern spectroscopic and computational tools are available in the department. Candidates for the positions, which are subject to final budgetary approval, should arrange for three letters of recommendation, a curriculum vitae and a description of proposed research to be sent to: **Dr. Leon Mandell, Chair, Faculty Search Committee, Department of Chemistry, University of South Florida, Tampa, FL 33620-5250 by January 15, 1996.** Salary is negotiable. For disability accommodations please notify Dr. Leon Mandell (813-974-2736) 5 days in advance. *The University of South Florida is an equal opportunity, equal access, affirmative action employer.*

ASSISTANT PROFESSOR of CHEMISTRY

University of California, Riverside

The Department of Chemistry invites applications for a tenure-track faculty position at the Assistant Professor rank starting July 1, 1996. The position requires a Ph.D. in analytical, inorganic, organic, physical, or other areas of chemistry, an ability to conduct an innovative and vigorous research program in fundamental aspects of atmospheric chemistry or related chemical/environmental areas, and excellent prospects for teaching chemistry at the graduate and undergraduate levels. Postdoctoral experience will be helpful. The successful candidate for this position will complement the ongoing research in the Department of Chemistry and the UC Riverside Statewide Air Pollution Research Center (SAPRC). The successful candidate will be a joint appointment in the Department of Chemistry and SAPRC. The SAPRC mission includes fundamental chemical studies of atmospheric processes as viewed in the broadest sense. Applicants should send a complete resume and statement of research interests, and should have three original letters of reference sent to Professor Steven R. Angle, Chemistry Faculty Search Committee Chair, Department of Chemistry, University of California, Riverside, CA 92521-0403. Evaluation of applications will begin on 15 January 1996, but the position will be open until filled. The University of California is an Affirmative Action, Equal Opportunity Employer. Additional local campus information is available at <http://cnas.ucr.edu/> and <http://www.chem.ucr.edu/>



Plant Ecologist

The Department of Biology of Swarthmore College invites applications for a tenure track appointment at the assistant professor level, to begin September 1996, pending final administrative approval. We seek a plant ecologist with field experience who is committed to combining teaching and research at a small liberal arts college. Teaching responsibilities include an intermediate-level course in general ecology, an advanced seminar in a major area within plant ecology, and participation in the Department's introductory biology sequence. The ability to teach other plant-related courses and/or to participate in the College's Environmental Studies program are especially desirable. The successful candidate will be expected to establish an active research program that will provide opportunities for undergraduate participation. A Ph.D. is required; postdoctoral research experience and teaching experience are desirable.

Applicants should submit a CV, along with statements of teaching and research interest, and arrange to have three letters of recommendation sent by 15 January 1995 to:

Rachel Merz
Chair

Department of Biology
Swarthmore College
Swarthmore, PA 19081-1397

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Molecular Entomology.

The Department of Epidemiology & Public Health, Yale University School of Medicine, invites applications for a tenure track ASSISTANT PROFESSOR position in the field of medical entomology. We seek candidates with a Ph.D. and postdoctoral experience in arthropod molecular genetics and/or physiology. Candidates with experience in the areas of arthropod transformation, vector competence, population biology or basic molecular genetics are especially encouraged to apply. Candidates should submit a curriculum vitae, statement of research and teaching interests, selected reprints and the names of three references to: Vector Biology Search Committee, Department of Epidemiology and Public Health, Yale University School of Medicine, 60 College Street, New Haven CT 06520-8034. Review of applications will commence on January 15th and continue until position is filled.

Yale University is an affirmative action/equal opportunity employer.



BIOLOGY, ASSISTANT PROFESSOR

The Department of Biology at Shippensburg University invites applications for a tenure-track position starting August 1996. The successful candidate will be required to have completed an earned doctorate at the time of appointment. Primary teaching responsibilities will include Immunology, Microbiology, and introductory biology for non-majors. An ability to teach Hematology is preferred. A strong commitment to undergraduate teaching is required. Scholarly activity will be required in the area of the candidate's specialty. Applicants should send curriculum vitae, copies of transcripts (both graduate and undergraduate), a statement of teaching philosophy and research interests, plus the names, addresses and telephone numbers of three references to:

Dr. Penelope J. Padgett

Chair of the Search Committee

Department of Biology,
Shippensburg University

1871 Old Main Drive

Shippensburg, PA 17257-2299.

Receipt deadline for application materials is December 15, 1995. *Shippensburg University is committed to equal employment opportunity. Women, persons of color, veterans and the disabled are encouraged to apply.*

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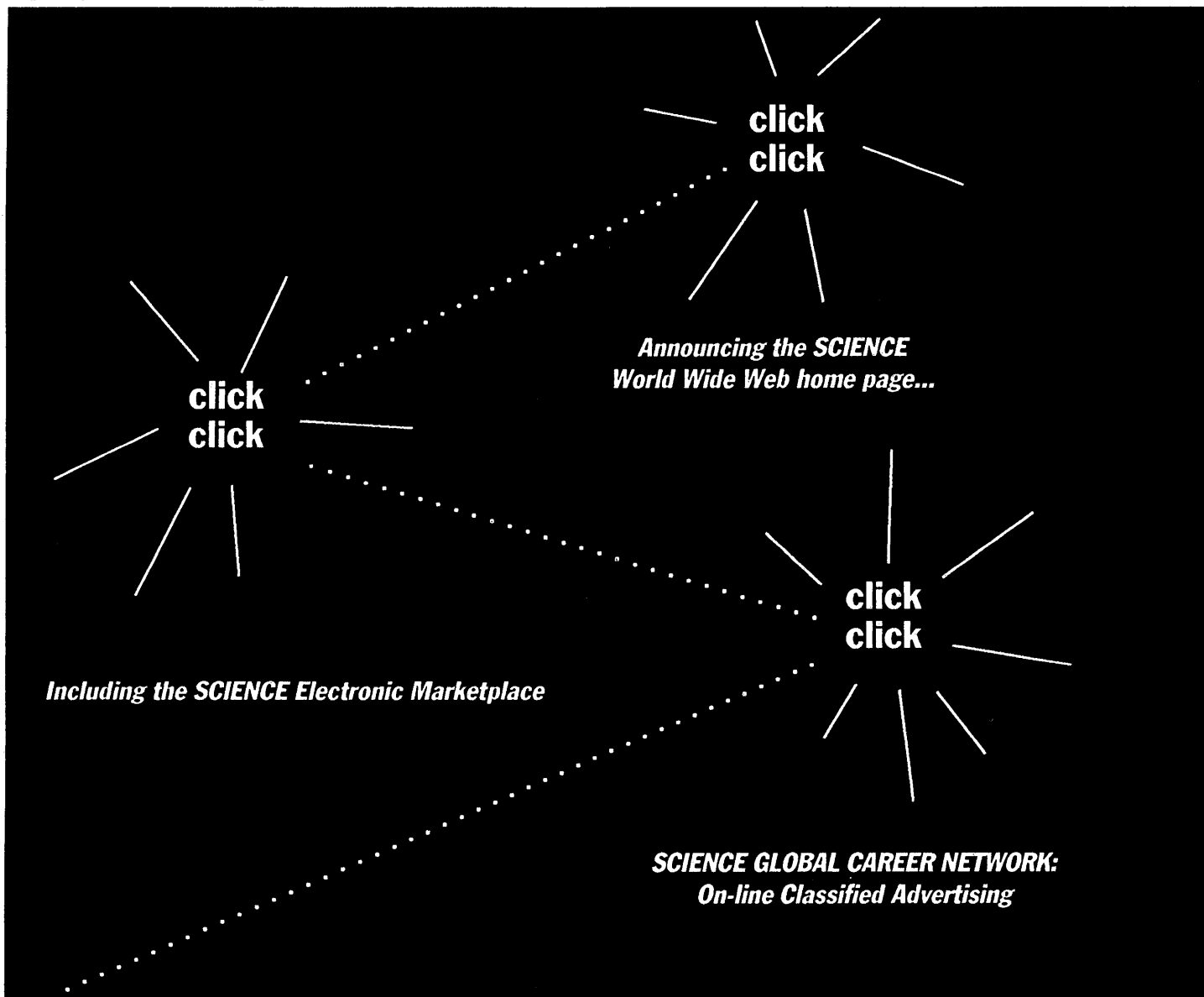
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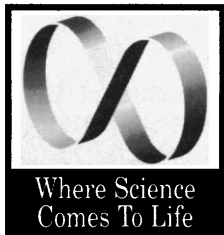
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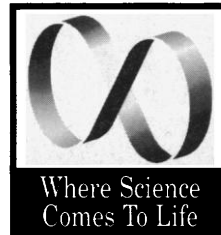
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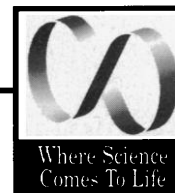
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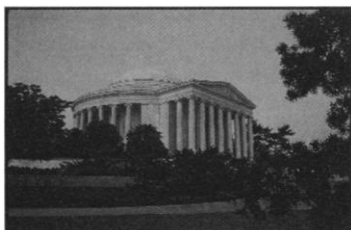
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Transgenic Models of Metabolic Disease

C. Ronald Kahn, Joslin Diabetes Center
E.M. Rubin, University of California

Intracellular Membrane Trafficking

Jennifer Lippincott-Schwartz, National Institute of Child Health and Human Development

Ion Transport and Disease***

William Harris, Children's Hospital, Boston
Mark T. Keating, University of Utah

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Allan S. Detsky, University of Toronto

Regulation of Apoptosis: Cellular, Molecular and Genetic Factors

John D. Mountz, University of Alabama at Birmingham

Translational Research in Dermatology*

Juoni Uitto, Thomas Jefferson Medical College

Delivering Information to Clinicians in the Era of National Networking***

Edward H. Shortliffe, Stanford University School of Medicine
David Lipman, National Library of Medicine

Developmental Biology: Organogenesis***

Jeffrey A. Whitsett, Children's Hospital Medical Center, Cincinnati
Jeffrey I. Gordon, Washington University School of Medicine

The New Biology of Obesity

Jeffrey S. Flier, Harvard Medical School

Emerging Infections***

Ruth Berkelman, National Center for Infectious Diseases
Monica M. Farley, Emory University School of Medicine

Training in Subspecialty Medicine: Current Status and Public Policy

Eric G. Neilson, University of Pennsylvania
Robert J. Mayer, Harvard Medical School

Abstract Presentations

Original abstracts will be presented either in oral sessions, chaired by teams of senior investigators, or in poster sessions.

Infectious Diseases/AIDS

James B. Dale, University of Tennessee School of Medicine

Cardiovascular

Christine Seidman, Harvard Medical School

Hematology

Dorothea Zucker-Franklin, New York University

Oncology

George Bosl, Memorial Sloan Kettering Cancer Center

Clinical Epidemiology/ Health Care Research**

Pamela G. Williams - Russo, Cornell University Medical Center

Pulmonary/Critical Care

Jeffrey M. Drazen, Harvard Medical School

Gastroenterology/Hepatology/ Nutrition

Tadataka Yamada, University of Michigan School of Medicine

Immunology/Allergy/ Rheumatology

William J. Koopman, University of Alabama at Birmingham

Gerontology/Aging

Mark A. Supiano, University of Michigan School of Medicine

Endocrinology/Metabolism

Leslie DeGroot, University of Chicago Medical Center

Renal/Hypertension

Barry M. Brenner, Harvard Medical School

Inflammation

William M. Nauseef, University of Iowa

Regulation of Gene Expression

Herbert H. Samuels, New York University



Physiology

J. Chris Gillin, University of California, San Diego

Cytokines/Growth Factors

Derek LeRoith, National Institute of Diabetes and Digestive and Kidney Diseases

Dermatology*

Juoni Uitto, Thomas Jefferson Medical College

Gene Therapy

Elizabeth G. Nabel, University of Michigan

Satellite Symposia/Meetings



Molecular Medicine Society

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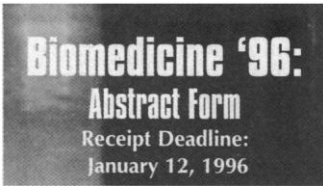
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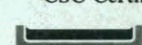
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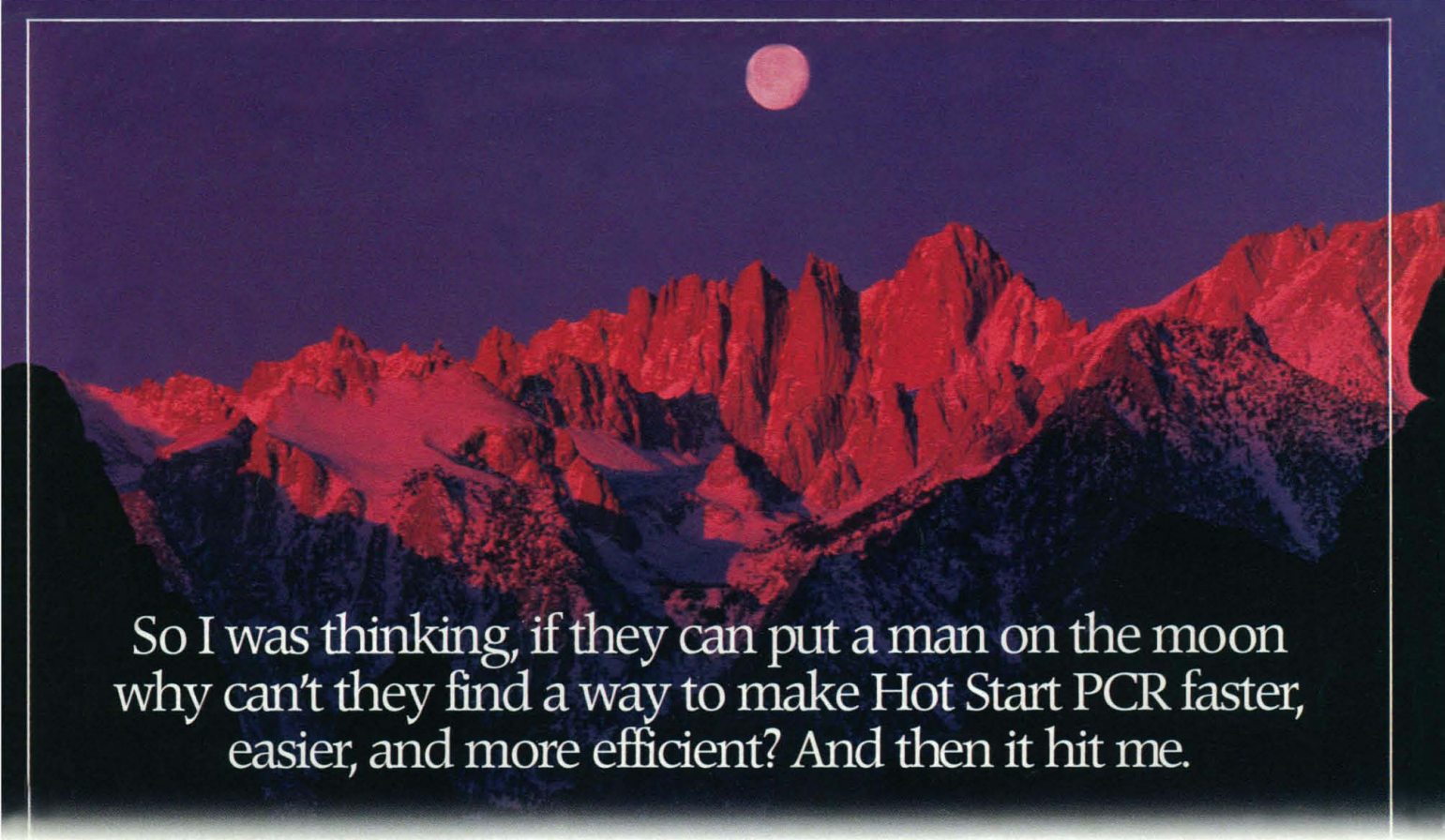
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