

TRAVEL FELLOWSHIP PROGRAM

for

Scientists of East Central Europe
and
the former Soviet Union

The United States Department of Energy (DOE) and the American Association for the Advancement of Science (AAAS) seek to recognize the research accomplishments of mid-career scientists from East Central Europe (ECE) and the countries of the former Soviet Union (FSU) in the area of environment and health, especially as it relates to problems of radiation contamination and health. A program has been established to award young ECE and FSU scientists travel grants to attend the AAAS Annual Meeting in the United States and be able to present their research findings to conference attendees during poster sessions.

The 1996 AAAS Annual Meeting will be held February 8 – 13 in Baltimore, Maryland.

Fellows will be given economy class travel support to the conference along with lodging and per diem reimbursement for food and incidental expenses. The fellows will also participate in site visits to local agencies and institutes directly related to their research.

ELIGIBILITY

Applications by ECE and FSU graduate students and post-doctoral scientists (within five years of completing their degree) *who currently are actively conducting research* in the areas of environmental contamination and health in geographic regions identified as being contaminated by radiation will be accepted. This would include researchers in these regions specializing not only in the effects of radiation contamination on health but also other possible contributory causes of negative health effects in these regions. These individuals must be working at recognized scientific research institutions; must be able to speak, read, and write English with a moderate degree of fluency; and must be able to gain the permission of their governments to travel.

APPLICATION AND NOTIFICATION PROCEDURES

Application materials should include all of the following: 1) a letter of intent by the applicant including name, affiliation, address, telephone, and e-mail address, if any, where he/she can be reached; 2) an abstract of the proposed poster session including a brief description of the research question, design, methods, results, discussion, and conclusions reached; 3) a curriculum vitae; and 4) two letters of support from professors or colleagues familiar with the applicant's research.

These materials must be submitted to AAAS by mail or fax no later than October 31, 1995. No late or incomplete applications will be considered. Send materials or inquiries to: Ms. Beth Boswell, Project Coordinator, AAAS, 1333 H Street, NW, Washington, DC 20005; Tel: (202) 326-6427; Fax: (202) 289-4958; bboswell@aaas.org.

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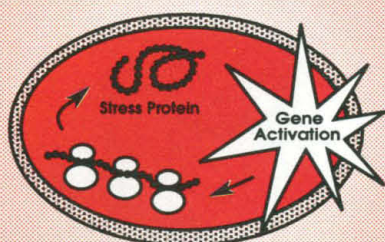
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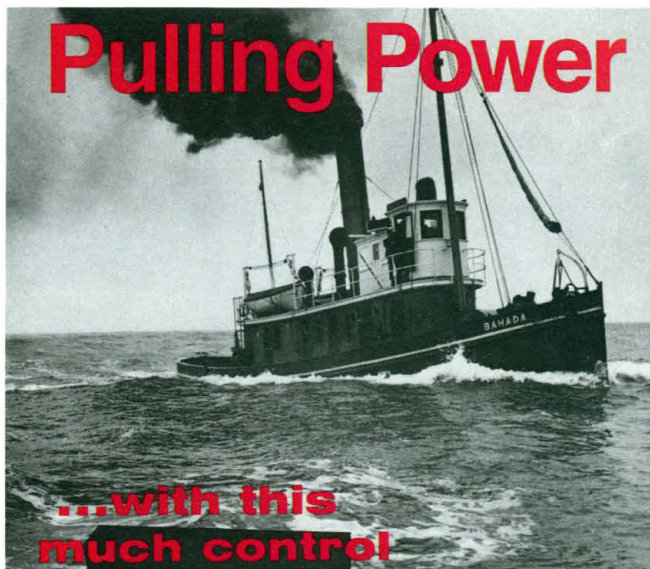
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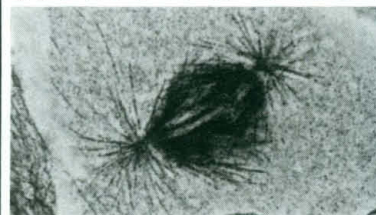
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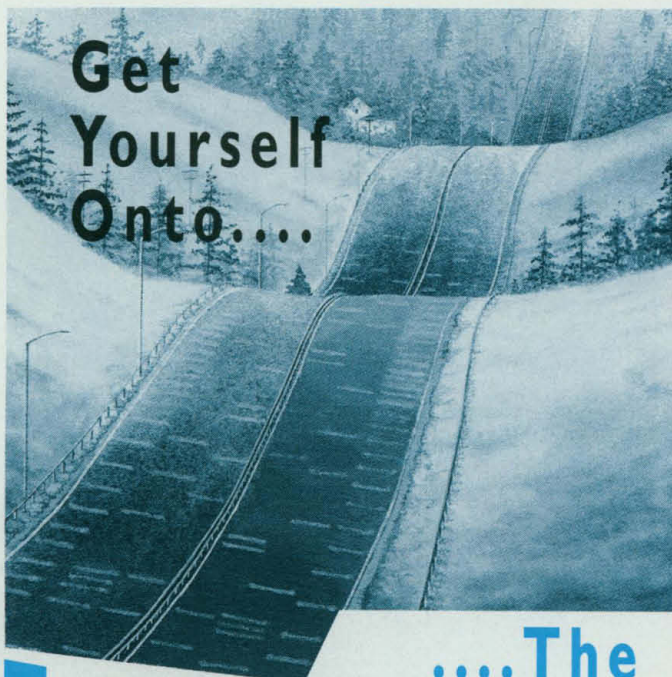
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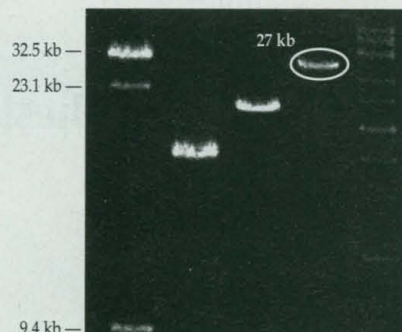
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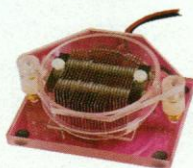
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¹Nickloff, J.A. of Harvard University, "Methods in Molecular Biology", Vol. 47, Humana Press Inc. Totoma, N.J. 1995.

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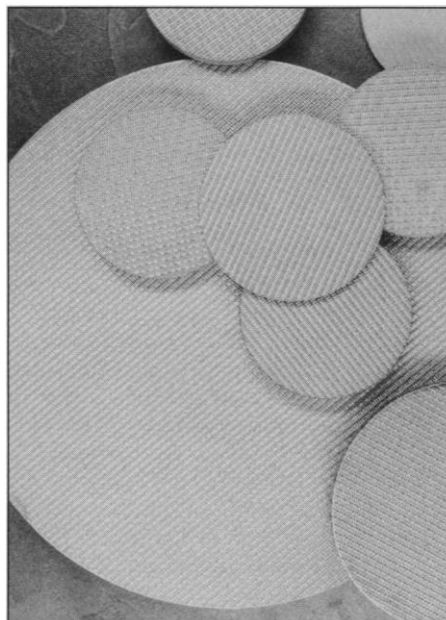


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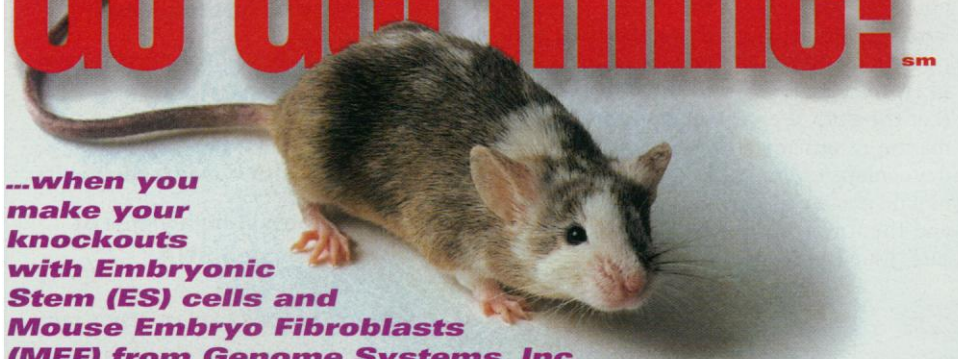
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READING THE TRENDS: CAREER OPPORTUNITIES IN EUROPEAN BIOTECHNOLOGY AND PHARMACEUTICALS

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by John Timpane

European

language these days: *international, multinational, multicultural, global, borderless, seamless, divergent, heterogeneous, cross-cultural, cross-disciplinary, and cross-functional*. This patois is an effort to capture the nature of European science and the European scientist. The Continent has become a Switzerland of disciplines in which everyone is multilingual. Traditional disciplines are being combined in new ways, and with nontraditional disciplines, to bring European science into the present. In the life sciences, this is, as one eloquent scientist puts it, "Florence in the fifteenth century." Below, scientists from Unilever, SmithKline Beecham, Pharmacia, Biopharm, and the Max Planck Institute of Cell Biology discuss careers in European science. We hear a range of advice concerning attractive fields and skills, what advantages to pursue, how to choose a postdoctoral position, even what attitudes to adopt about the nature of industrial science. And all is couched in this new language, spoken by scientists in a Europe of collaboration, crossover, and change.

scientists are using a strange

THE BORDERLESS LABORATORY: GLOBAL SCIENCE AT UNILEVER

Unilever is a leading international company serving worldwide markets in foods, detergents, personal products, and specialty chemicals. David Learmond, divisional personnel officer, research and engineering division, says, "We're looking for PhD scientists who can demonstrate that they can use their first-class scientific training to work with others in delivering outstanding innovation in our products." Theo Verrips, responsible for Unilever's exploratory bioscience program, says that "our major scientific interests are in plant, microbial, and human cell and molecular biology; enzymology; nutrition; preservation; and biorecognition."

Unilever has started an international recruitment campaign to integrate and internationalize Unilever's laboratories in England, the Netherlands, the United States, and India. "Our aim," says Jane Goodwin, divisional human resources consultant and project leader for the international recruitment effort, "is to attain a seamless, borderless laboratory. We want to create project teams that cross national and disciplinary boundaries."

AT THE LEADING EDGE OF MOLECULAR NEUROLOGY RESEARCH

Harlow, Essex

At SmithKline Beecham the importance we place in the talent and creativity of our people is only matched by the substantial investment we make in new technology and resources. At our superb research centre in Harlow, the Neurology department is broadening its base to exploit novel targets in the neurosciences arising out of the company's collaboration in the area of molecular medicine. To help us succeed in this area we now have the following challenging opportunities:

Senior Molecular Biologist

This position requires a talented manager to lead the team in the application of molecular biology techniques to neuroscience research. This will involve efficiently exploiting the function of orphan receptors and deriving new targets from models already in place, establishing methods for probing the function of novel genes, and liaising with in vitro and in vivo groups to ensure techniques for manipulating expression are appropriately applied.

Together with a good biology/neurosciences degree and a PhD in molecular biology, you will have at least 5 years' relevant experience, preferably including manipulating gene expression in vivo and in vitro eg. antisense. You will have a good understanding of cell biology and cell culture techniques and previous experience of directing a team. **Ref: TH/LE/951.**

Graduate Molecular Biologist

You will have graduated in molecular biology or biochemistry and have some experience of general molecular biology techniques. Experience of in situ hybridization techniques would be an advantage, but enthusiasm and

willingness to work as an active team member are also important. You will be involved in the exploitation of novel targets originating from SmithKline Beecham's genomic initiatives.

Ref: PL4.

Graduate Scientist

You will provide biochemical support for projects within Neurology Research and across the matrix. Working in a multidisciplinary team, this will involve conducting in vitro experiments to initiate and assist the investigation of novel

therapeutic agents. A degree in biochemistry or related biological/pharmacological sciences should be accompanied by at least one year's experience in biochemical research. **Ref: PL5.**

All roles offer a highly competitive salary as well as an extensive benefits programme which includes a company car (senior position only), bonus, pension and medical plans, profit-related pay, share-matching scheme, flexible working hours, generous holidays, and excellent sports and social facilities.

To apply, please send your full career details, quoting the appropriate reference, to the Human Resources Associate, SmithKline Beecham Pharmaceuticals, New Frontiers Science Park (North), Third Avenue, Harlow, Essex CM19 5AW. Closing date for applications: 6th October 1995.


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Physical Sciences

Unilever is seeking to recruit a number of physical scientists for its world leading programme in colloid and surface science, material and measurement science. The major areas of interest involve the physics and chemistry of solid and liquid phases; particularly materials in contact with or containing water.

Unilever has an on-going commitment to studying inorganic materials and reaction mechanisms in materials utilised across all their areas of technological interest. The growth areas of interest are in particle science, the physical chemistry of enzymes and biopolymers, structuring of soft phases and the rheology of films and concentrated dispersions.

Additionally, there are a number of openings for specialists who are experienced in the measurement techniques that underpin the above areas, such as confocal microscopy and surface scattering techniques. Ref: SC/1092/JVM

Consumer Sciences

Providing exciting new products for consumers throughout the world is a challenge. We need people who can use their scientific skills to understand what consumers want, now and in the future, then translate this into a technical brief and finally make sure the emerging technology works in real life and is appreciated by consumers.

To do this we are looking for creative scientists with a curiosity about how people go about their feeding, grooming and cleaning, the tenacity to tease out consumers' needs and ideals, plus the ability to work with multi-disciplinary teams to determine and evaluate appropriate technical and marketing solutions.

Experience in consumer research is an advantage.

Ref: SC/1093/JS

Excellent communication skills and the ability to work in an integrated team of scientists and business managers are essential. You will be a high calibre scientist, qualified to PhD level with a proven track record in your specialist field. The drive to join an innovative company and contribute to their future scientific direction as a member of a dynamic project team is key. The desire to achieve excellence in your field, a flexible attitude and the ability to work in any location is essential as opportunities exist in the USA, UK and The Netherlands.

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THROUGH AN INTEGRATED APPROACH

Biosciences

Bioscience is a key area of Unilever's exploratory research programme. Projects range from improvement of the functionality of various components in plants via classical breeding and modern recombinant DNA techniques, to extension of the shelf life of products by applying advanced preservation systems derived from defence systems used by various biological systems.

To support this work, Unilever requires scientists to work in Plant Science, Enzymology, Human Nutrition, Human Cell, Molecular Biology, and Microbial Biotechnology, including the rapidly expanding area of microbial fermentation. There is also an emphasis in the area of immunology resulting in consumer products based on antibody technology. Another key area is the understanding of consumer perception of flavour and odours, important criteria in the development of novel food, personal hygiene and cosmetic products. Ref: SC/1094/SCJ

If you wish to join Unilever's winning team then send or fax your CV, quoting the appropriate reference number, to our retained consultancy *Executive & Scientific Appointments Limited*, Salisbury House, 15-17 The Broadway, Old Hatfield, Hertfordshire AL9 5HZ, United Kingdom. Tel: 01707 264311 or Fax: 01707 275402.

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Unilever

Unilever, which heretofore had recruited locally, is now expanding its talent search to include the whole world. The focus is on biochemists and molecular biologists who can use their skills—including materials and colloid science, tissue culture, biochemistry, genetics, and transgenic techniques, focusing on signal transduction and controls on growth and differentiation—in creative ways to solve biochemical problems.

Hands-on experience is, as always, a prime requisite. Carol Bosko, group leader in epidermal biology at Unilever's Edgewater, New Jersey, lab, stresses cross-disciplinary background and cross-functional thinking. "Biologists can't be just biologists anymore," she says. "We're looking for people who also know chemistry and physical chemistry, how to apply techniques available in these disciplines in new ways to solve biochemical problems." If university training hasn't provided the cross-discipline, the job-seeker might look for a "divergent post-doc," deliberately chosen to give the scientist a heterogeneous background. "Scientists must be able to pick up the best ideas at the right moment and transfer those ideas to practical advances," Verrips says, "and they should be able to communicate their ideas in an understandable way."

Dr. Anthony Lee, head of exploratory research, Unilever, is discussing novel collaborations between industry and academia in Europe and the United States. "We're actively experimenting with new job structures, in which heads of departments at distinguished European universities take over some of our projects and run them from within their labs," he says. "The idea is to offer a parallel academic and industrial career. Why make this an either/or decision?"

Why is Unilever spreading the net worldwide? "We simply need the best people we can find," Lee says. Specialists in biol-

ogy are in great demand, especially in human cell biology, microbiology, biochemistry, and plant cell biology. But Unilever also is looking for people with divergent yet complementary backgrounds, such as the biologist with expertise in the physical sciences, or the colloid scientist with a background in enzymology. Applications of engineering and computer technology in manufacturing are "simply exploding," and interest is high in applied psychology as it pertains to consumer science. "In ten to fifteen years," Verrips says, "the combination of information technology and bioscience will be very important. It will help us discover and design new products more specifically for segments of the market—and it will make consumers far more knowledgeable about the content and manufacture of their products."

Advances in technology and bioscience are causing international excitement in this quintessentially international company. "Now, using biological and enzymatic techniques," Verrips says, "we can tailor-make raw materials for food products. An enormously important example is polysaccharides, which we can now design in ways that were unavailable or expensive a decade ago." Lee says, "This is Florence in the fifteenth century. Someday our grandchildren will ask us, 'What was it like to be doing science in the 1990s?' It will be a pleasure to tell them."

RECRUITMENT IN BIOTECHNOLOGY AT SMITHKLINE BEECHAM

Janet Dewdney is director and vice president for biotechnology (Europe) at SmithKline Beecham (SB) in Harlow, England. The goal of her department is, in her words, "to contribute to drug discovery through the identification of novel molecular targets—in large measure now derived from genome sequencing—and to identify novel protein compounds as therapeutic agents." In terms of recruitment, graduate and postdoctoral scientists with demonstrated excellence in molecular biology, protein chemistry, and structural biology are of great interest.

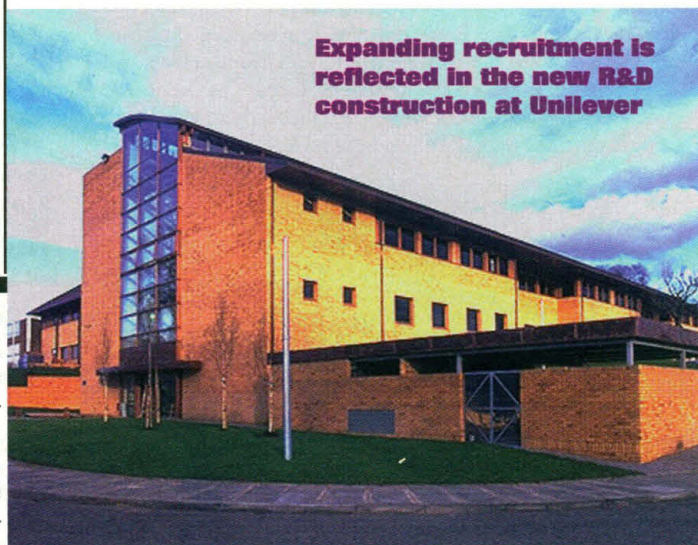
But there are other needs as well, including fermentation skills, cell culture, and data management and bioinformatics. Dewdney notes that fermentation science has become "something of a Cinderella in the biotech framework," a critical factor, from discovery through manufacturing, in the effort to exploit the advances in biotechnology. There are not enough fermentation scientists—nor enough data management and bioinformatics experts. Because of the breadth and diversity of new molecular targets

and the enormous number of chemical entities now made available via combinatorial chemistry, many companies, SB included, have put high throughput screening at the center of drug discovery. "The question now is, How do we manage the data?" Dewdney says. "Data handling and information management will be crucial in years to come."

There is great excitement in SB's biotechnology labs. Recombinant DNA technology is creating new opportunities in vaccine discovery and production; SB's own hepatitis B vaccine is a case in point. Recombinant protein products are finally assuming an important role in the marketplace. "True, many of these are relatively niche markets," Dewdney says, "but collectively, they now amount to a significant presence." In discovery science, molecular targets derived from human genome research are beginning to revolutionize screening and discovery. "We already have a cornucopia of novel molecular targets," Dewdney says, "and one very real and exciting challenge is to

define function for many of these orphan black box genes."

SB's recruitment efforts have gone global along with science itself. "Young scientists are far more mobile across continental Europe than they were even five years ago," Dewdney says. "That has led us to focus on Europe as a whole rather than just on universities in the United Kingdom." SB has started to target European universities such as Louvain-La Neuve, Leiden, Milan, and Tübingen for recruitment. Dewdney's department rarely considers candidates with lower than a first-class degree. Past that, the intangibles—commitment, breadth of interest but with a specialist focus, good communications skills, a sense of the pharmaceutical market—become important. As Dewdney puts it, "We'd like our recruits to understand the business they are in and the pressures on it."



Expanding recruitment is reflected in the new R&D construction at Unilever

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OPPORTUNITIES IN EUROPE

Procter & Gamble is a research and development-based international corporation with more than \$33 billion/year in world-wide sales in household consumer products and an annual R&D budget of \$1.25 billion. In Europe, the Middle East, and North Africa, Procter & Gamble is engaged in the research, development, manufacture, and sale of a wide range of household consumer products including detergents, fabric-care products, toilet soaps, beauty- and health-care products, disposable personal-hygiene products, household-care products, and beverages.

We currently have several entry-level openings in Europe for Ph.D. scientists. Successful candidates will have strong technical and communication skills, a high level of initiative and commitment, and a good command of English. In addition, fluency in at least one other European language is desirable. Candidates must be eligible to work in the European Union.

■ Ph.D. in PHARMACY (Ref. 95/6)

A doctoral-level scientist is needed for analytical method development and problem solving in support of the development of respiratory medicines, oral care, denture hygiene, and gastrointestinal technology. Experience with GMP or GLP in the pharmaceutical industry is an asset. This position is located at our Egham Technical Center outside of London.

■ BIOCHEMIST/ENZYME CHEMIST (Ref. 95/7)

A scientist with a Ph.D. and/or postdoctoral training in biochemistry or enzyme chemistry is needed for the development of analytical methods and test techniques for industrial enzymes. The opening also involves modeling the interaction of enzymes with laundry substrates. This position is located at our European Technical Center in Brussels.

■ COLLOID CHEMIST (Ref. 95/8)

A scientist with a Ph.D. in physical chemistry is needed to develop innovative laundry technology through technical understanding of physical chemistry at solid-liquid interfaces. This position is located at our Newcastle (England) Technical Center.

■ ENVIRONMENTAL TOXICOLOGISTS (Ref. 95/9)

Openings exist in the area of environmental research, with responsibility for the development and execution of environmental management programs, including safety assessments. Successful candidates will have a Ph.D. or postdoctoral training in biochemistry, microbiology, ecotoxicology, biology, applied ecology, or a similar discipline. One of the positions will be filled with a citizen of a Scandinavian, Central or Eastern European country, or from the Mediterranean area. Location is in Brussels or Frankfurt.

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GERMAN EUROSCEINCE AT BIOPHARM

The state of German bioscience is changing in some encouraging ways. While there are still some *Länder* in which it is easier to do biobusiness than others, for the most part, *Einheit* has brought some détente in relations between biotech and politics. As Rolf Bechtold, head of analytical services at Biopharm in Heidelberg, puts it, "The two most exciting recent political developments have been the opening to the East and the slowly changing public opinion towards genetic engineering in Germany." A host of entities, both commercial biotechs and private or government-sponsored research centers, are making important contributions. One can find contract research organizations such as Biomeva of Heidelberg; companies specializing in gene therapy and diagnostics, such as MediGene of Munich; and innovators in protein and peptide discovery technology, such as MorphoSys of Frankfurt.

Biopharm, nine years old and growing quickly, is already able to count several major European pharma as clients. Recently, Biopharm licensed one of its patented developments, a recombinant cytokine, to Hoechst AG. Bechtold and scientific director Jens Pohl report that "our most exciting recent scientific development was the isolation of two new members of the TGF- β family; otherwise, there is exciting progress in neurobiology, especially the identification of several neurotrophic factors."

What sorts of scientists are in demand? While Pohl and Bechtold believe that "there are too many molecular biologists at the moment," they add that "there will always be demand for people having expertise in protein engineering and skills for protein purification." And those people should be international in outlook: "Postdoctoral time spent abroad is an advantage because it increases foreign language skills and adds a multicultural touch."

As biotech heats up in Germany, Biopharm is looking for scientists committed to joining forces to produce innovation. It's a mindset different from the traditional academic viewpoint, but then, those two realms, like East and West, are in the process of becoming one. For Jens Pohl and Rolf Bechtold of Biopharm, the new eurobiologist should "of course be hard-working and team-oriented; remember it's the result that counts, not a first authorship."

DISCOVERY, INFORMATION, REVOLUTION: GÖRAN ANDO OF PHARMACIA

Göran Ando is executive VP and deputy CEO for Pharmacia of Stockholm, Sweden, an R&D-driven pharmaceutical company with an unusual history. Research has led Pharmacia into a diverse range of specialties, including ophthalmology, production of human growth hormone, oncology, and advanced lab equipment. What makes Pharmacia unusual for a major pharma is that molecular biology is its R&D base—and has been for more than 15 years.

When asked for the hot fields of the moment, Ando replies, "Molecular biology is our science; there are too few good molecular biologists in the world." But he also sees a need for "whole-body biologists," specialists with a physiological background, who can see the body from a perspective of more than one cell at a time. "We will always be on the lookout for structural biology," he says, "as well as for computational chemistry." And Ando speaks enthusiastically about the global trend toward marrying the classical disciplines with information technology (IT): "People who have merged one of the chemistries or biologies with an IT competence are critically important."

Like industrial science employers all over the globe, Ando looks for entrepreneurship and flexibility in job-seekers. "They should first understand that Pharmacia, indeed any science company, is different in an essential and positive way from university. This is a business, and because our business is so exciting, so competitive, we expect them to give their absolute best." And then there is the necessary balance between goal orientation and flexibility. If priorities or directions change, the scientist must be prepared. "This too can be a positive challenge, a way to extend your competence," he says.

Ando sees the European biopharmaceutical market as still fundamentally sound. There is still a huge, unmet medical need, and European health care systems are still willing to pay for innovations—but only for true innovations. "That means that there will be a further consolidation of the pharmaceutical industry," he says, "but as a business concept, pharmaceuticals is very viable, especially in research and development."

Viable indeed in these times of heady discovery. "Genomics is, of course, fascinating, offering us completely new horizons," Ando says. "If you link that with bioinformatics, in which IT is combined with genomics, you have a revolution that will make continued innovations possible." Ando's enthusiasm is a reminder of why European science today is so exciting. "I recently met with our colleagues at Human Genome Sciences," he says, "and just listening to them makes me happy."

BEYOND THE KIT MENTALITY: THE MAX PLANCK INSTITUTE FOR CELL BIOTECHNOLOGY

The Max Planck Institute for Cell Biology in Ladenburg, Germany, is one of about 60 institutes run by the Max Planck Society (MPS). While basic research is the primary concern, the MPS has encouraged scientists to explore industrial spinoffs. Two recent examples are Sugen, Inc., of Redwood City, Calif., fledged with an American partner by German scientist Axel Ullrich, and Evotec of Hamburg, started by Nobel laureate Manfred Eigen.

At Ladenburg, about 50 people perform basic research in cell biology. Peter Traub, director of the Institute, says, "Our goals include a molecular understanding of the involvement of the cyto- and karyoskeleton, particularly intermediate filaments [IFs] in differentiation processes in vertebrate systems, and microfilaments, microtubules, and IFs in the green alga *Acetabularia*."

Techniques at the Institute mirror the latest in world biological science: confocal laser scanning microscopy, transmission electron microscopy, oligonucleotide synthesis and automatic DNA sequencing, manual and automated microinjection of cells, biolistic and electroporation transformation techniques, fluorescence polarization spectroscopy, FACS analysis, and in vitro tissue cell line culture. That activity has paid some recent dividends, including cloning and characterization of the genes for myosins in *Acetabularia*.

Traub advises new scientists to avoid developing what he calls a "kit" mentality. "Much of biochemistry and almost all of molecular biology is available in kit form," he says, "which has resulted in a new generation of postdocs who have a difficult time in the lab when the kit doesn't work. What is still needed in cell biology is a rigorous biochemical training, an ability to do math, and an understanding of physics." Scientists need to be computer-literate and good communicators too, both verbally and in written publications and grant applications. "Since the language of most fields of biology (including cell biology) is English," Traub says, "acquire fluency in speaking or writing English, perhaps by doing a research or postdoctoral fellowship in the United Kingdom or the U.S." His advice for job-seekers is to diversify their experience. "Participate in more than the required number of courses for a degree," he says. "Spend time in several laboratories to see whether science remains exciting."

Traub sees both challenge and uncertainty ahead for global science. "Deciphering the genome is only a first step," he points out. "After all the sequencing is done, it will take literally armies of cell biologists and geneticists to do the basic science and produce the proteins or drugs that will address or solve a particular problem." In such a dynamic scenario, the diverse, polyglot, articulate, computer-literate, perseverant, and above all anti-kit scientist holds the greatest promise.

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



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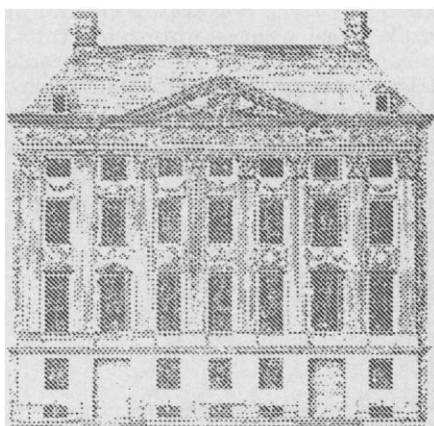
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More information is available from the Secretariat of the Unilever Science Award, Royal Netherlands Academy of Arts and Sciences,
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Further enquiries to the Head of Department, Dr Jonathan Wolfe, (tel. +44 (0) 171 380 7417; fax +44 (0) 171 383 2048; email jwolfe@genetics.ucl.ac.uk) or to the Dean, Professor A R Lieberman (tel+44 (0) 171 380 7769). Further information about the position and the Department may be obtained from Dr Wolfe or from the Director of Academic Services, UCL, Gower Street, London WC1E 6BT UK, (tel. + 44 (0) 171 380 7766; fax +44 (0)171 380 7380).

Applications, including a full cv (ten copies for UK candidates, one copy for overseas candidates) and details of three referees (Including at least one from overseas) should be addressed to the Provost, UCL, Gower Street, London WC1E 6BT, UK. The closing date for receipt of applications is **27 October 1995**

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For further information please contact Professor Rudolf Ladenstein, phone +46-8-608 92 22.

Applications should be sent to Karolinska Institutet, Department of Bioscience at Novum, NOVUM, S-141 57 HUDDINGE, SWEDEN together with CV, relevant publications, a short description of research interests and two recommendation letters.

Closing date: October 31, 1995

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Individuals who wish to apply or would like to suggest the names of others are invited to write to the Chairman of Court, Mr J Miller CBE, c/o University Secretary, Heriot-Watt University, Edinburgh EH14 4AS (Tel: 0131-451 3365 Fax: 013-451 3599). Further particulars will be supplied on request. The closing date for completed applications is **31st October 1995**.



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**Leicester
University**

**Centre for Mechanisms
of Human Toxicity
Medical Research Council**

RESEARCH FELLOWSHIPS

Electrophysiology and Cancer Cell Biology

The Centre for Mechanisms of Human Toxicity is an Interdisciplinary Research Centre whose mission includes both the study of specific toxicological problems and investigations of fundamental biological mechanisms of toxicity, and research in basic biology and chemistry that has the potential to contribute to studies of human toxicity.

Applications are invited for two five-year Research Fellowships in the following areas. These are intended to allow outstanding young scientists to develop independent research programmes in close collaboration with existing groups in the Centre.

Electrophysiology (Ref: RF95/1)

The Centre has a strong ion channel and gene expression group and strong interests in neurotoxicology. Applicants for this position should have skills in modern electrophysiology and a strong interest in applying these to toxicological problems.

Cancer Cell Biology (Ref: RF95/2)

The Centre has wide-ranging programmes in carcinogenesis and cancer biology. Applications are invited from individuals with interests in any area of cancer cell biology; strong preference will be given to applicants with experience in the application of transgenic methods in this field.

The positions are available immediately for a fixed term of five years at a starting salary on the Research and Analogous Grade 1A (£14,317 to £21,519 pa) or Grade 1I (£19,848 to £26,430 pa) according to experience. Further information can be obtained from the **Resources Manager, Dr S H Dyer (Tel: 0116 252 5566. Fax: 0116 252 5616. E-mail: shd2@le.ac.uk)**. Applications including a curriculum vitae, list of publications and a short (2 page) research proposal, should be sent to **Dr S H Dyer, Resources Manager, Centre for Mechanisms of Human Toxicity, Hodgkin Building, University of Leicester, P O Box 138, Lancaster Road, Leicester LE1 9HN, UK**, to arrive by 20 October 1995.

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in University teaching
and research**



**THE QUEEN'S
ANNIVERSARY PRIZES
1994**

**UNITED ARAB EMIRATES UNIVERSITY
FACULTY OF MEDICINE & HEALTH SCIENCES**

*The faculty's mission is to provide internationally recognised medical graduates attuned to the needs of UAE achieved through excellence in teaching, research and community service. To this end, we wish to appoint a **MEDICAL PSYCHOLOGIST** within the **DEPARTMENT OF PSYCHIATRY** at either Professor, Associate Professor or Assistant Professor level. The actual level of appointment will be determined by the successful candidate's credentials.*

Applicants must possess a PhD degree in a related subject or an equivalent higher professional academic degree from an accredited university or institution of higher learning.

The Faculty admits students directly from high school and is seeking a psychologist experienced in teaching both introductory and Medical Psychology. The teaching is delivered in modules which integrate contributions from Psychology, Sociology, Family Medicine, Community Medicine, Psychiatry and other clinical disciplines. Experience of such curricula, knowledge of local cultures and a relevant research background are considered advantages. The Faculty will soon relocate to a purpose built medical school equipped to the highest standards.

Benefits for the successful candidate include a competitive tax-free salary (Professorial level 19,050 - 21,900 UAE Dirhams per month; Associate Professor 16,200 - 19,050 UAE Dirhams per month and Assistant Professor 13,350 - 16,200 UAE Dirhams per month), free accommodation, furniture allowance and assistance with children's tuition fees up to a maximum of 15% of the gross annual salary. Also provided are an interest free car loan and cash-in-lieu of equivalent annual return air fares to the country of residence. An award of 8.6% of the gross annual salary is paid after each year of service. In addition, the Emirates offers a highly attractive lifestyle with all the amenities of any modern society.

For more information, please contact the Chairman, Professor Mohammed Abou-Saleh on Tel. No. +971 3 624660. Formal applications can be made by forwarding a comprehensive curriculum vitae, a list of publications, copies of certificates and the names and addresses of three current referees to:

The Director of Personnel, Faculty of Medicine and Health Sciences
United Arab Emirates University, P.O. Box No. 17666
Al Ain, United Arab Emirates
Fax No. +971 3 657649.

Applications will be closed 4 weeks after the date of publication.



ÉCOLE POLYTECHNIQUE
FÉDÉRALE DE LAUSANNE

**SWISS FEDERAL INSTITUTE OF
TECHNOLOGY - LAUSANNE**

Applications are invited for the following position

**MAÎTRE D'ENSEIGNEMENT ET DE
RECHERCHE (SENIOR LECTURER)
IN BIOMEDICAL ENGINEERING**

at the Department of Physics

The field of research covers the physics of the cardiovascular system and the characterization of the biomechanical properties of living tissues. The candidate is expected to participate in teaching biomedical courses at the undergraduate and graduate level.

Women candidates are especially encouraged to apply.

Deadline for applications: January 15, 1996
Starting date: to be discussed
Interested candidates should ask for the application form to: **Presidence de l'École polytechnique fédérale de Lausanne, CE-Ecublens, CH-1015 LAUSANNE, Switzerland.**



Medical Research Council

**MEDICAL RESEARCH COUNCIL
LABORATORY OF
MOLECULAR BIOLOGY, CAMBRIDGE
MOLECULAR BIOLOGY of HIV**

Two postdoctoral positions funded by the MRC AIDS Directed Programme are available in the group headed by Drs. J. Karn and M J Gait at the Laboratory of Molecular Biology, Cambridge. The work of the group focuses on the HIV regulatory proteins Tat and Rev. Ongoing projects range from structural studies of the complexes formed between Tat and Rev and their RNA-recognition sites to biochemical and genetic studies of the mechanisms of actions of Tat and Rev (for recent papers see Churcher et al., (1995) Proc. Natl. Acad. Sci USA, 92, 2408-2412; Rittner et al., (1995) J. Mol. Biol. 248, 562-580; Mann et al. (1994) J. Mol. Biol. 241, 193-207). Experience will be preferred in the biochemistry of transcription, molecular virology and/or gene expression in mammalian cells.

Both posts are available for three years. Starting salary will be between £16,628 and £22,374 depending on experience. Further information can be obtained from Dr. J. Karn, Tel (01223) 402376, Fax (01223) 412282.

Applications including two copies of a full CV, a list of publications, reprints of no more than three papers and the names and addresses of three professional referees should be sent by 30 November 1995 quoting reference PNAC/ADP to: Dr. Rosie Ward, Personnel Manager, MRC Centre, Hills Road, Cambridge, CB2 2QH.

Applications from overseas are welcome.

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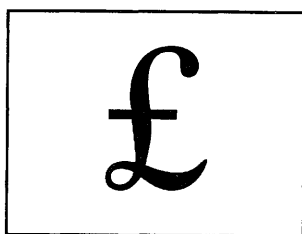
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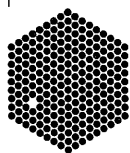
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EMBL

The European Molecular Biology Laboratory, an international research organization consisting of three outstations and a headquarters laboratory, situated in Heidelberg, Germany, has the following vacancies at the Laboratory's Outstation (the "European Bioinformatics Institute") in Hinxton, near Cambridge, UK.

PROGRAMMER (REF. 95/37) (SCIENTIFIC)

Applicants should have a university degree in a computer literate scientific field; have several years of programming experience; knowledge of database management, of Unix, and C programming language.

POSTDOCTORAL FELLOW (REF. 95/PD/4) BIOMOLECULAR STRUCTURE

We are seeking a research fellow in protein structure analysis and databases. Solid experience in structural molecular biology and computing. Candidates should have a PhD in physical sciences with computational experience.

POSTDOCTORAL FELLOW (REF. 95/PD/5) MACROMOLECULAR STRUCTURE

Applicants should have a degree in clinical, biological or computer sciences and have experience in computer programming. A solid background in structural biology, in particular protein 3D structures and/or molecular modelling is required.

As an inclusive international organisation, EMBL particularly encourages applications from women.

Please send your C.V. quoting ref. no., or write for an application form to:
EMBL, Personnel Section, Postfach 10.2209, D - 69012 Heidelberg, Germany
(Fax: +49 6221 387555).

Die private Fachhochschule Fresenius hat ihren Ursprung in den Pioniertagen der angewandten Naturwissenschaften. Sie ist hervorgegangen aus einem der ersten Untersuchungs- und Unterrichtslaboratorien der Welt, das Carl Remigius Fresenius, Schüler und Assistent von Justus von Liebig, 1848 in Wiesbaden gründete. Studenten der ersten Stunde waren Merck, de Haen, Lucius, Brining, Kalle, Leverkus, Heraeus und andere große Unternehmer der chemischen Industrie. Fresenius verband Forschung, Lehre und Praxis. So stehen heute der Fachhochschule FRESENIUS die chemischen und biologischen Laboratorien der Fresenius-Gruppe, des größten deutschen Laborunternehmens, zur Seite.

Schwerpunkt des Lehrangebotes der Fachhochschule FRESENIUS ist das Ingenieurstudium, Fachrichtung Chemie, mit den 3 berufsbezogenen Richtungen „Produktentwicklung und -Controlling“, „Umweltschutz und -Controlling“, „Betriebs- und Vertriebsmanagement“. Zusätzlich sind der Fachhochschule Berufsfachschulen für nichtärztliche Heilberufe



angegliedert. Mitgesellschafter der Fachhochschule FRESENIUS ist Deutschlands führender privater Bildungsverbund, die COGNOS AG. FRESENIUS und COGNOS bündeln ihre Bildungskompetenzen für den weiteren kontinuierlichen Aufbau neuer Fachrichtungen in der Fachhochschule für zukunftsreiche nationale und internationale Märkte, z.B. in den Bereichen Gesundheitswissenschaft, Ernährungswissenschaft, Sozialmanagement. Neuer Standort der Fachhochschule ist ab 1.10.1995 das malerische, verkehrsgünstig zu Frankfurt gelegene Idstein im Taunus. Modern ausgestattete, großzügige Räume in einem traditionsreichen, denkmalgeschützten Backsteingebäude der Gründerzeit geben der renommierten Fachhochschule das angemessene Ambiente. Für den erfolgreichen weiteren Ausbau und die erweiterte Positionierung braucht die Fachhochschule FRESENIUS tatkräftige Unterstützung.

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Bitte richten Sie Ihre aussagefähige Bewerbung mit Angabe Ihrer Gehaltsvorstellungen unter dem Stichwort der Position, für die Sie sich interessieren, an den Vorstand der



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POSITIONS OPEN

STRUCTURAL BIOLOGIST UNIVERSITY OF CALIFORNIA, DAVIS

The Division of Biological Sciences, University of California, Davis, invites applications for an **ASSISTANT PROFESSOR** of Molecular and Cellular Biology (pending budgetary approval). This is a tenure-track position in the Section of Molecular and Cellular Biology within the Division, which could include an appointment in the Agricultural Experiment Station. Candidates must have a Ph.D. (or equivalent) and an outstanding record of achievement in research. The successful candidate will be expected to develop a strong research program in structural biology. The Section particularly wishes to recruit an individual who is solving fundamental problems in biology using high-resolution structural techniques. The successful candidate might complement the Section's existing research strengths in protein-nucleic acid interactions, enzymology, the cytoskeleton and cell function, signal transduction, and molecular mechanisms of development. He or she will be expected to teach biochemistry at the undergraduate and graduate levels. Applicants should submit 1) a curriculum vitae, 2) a statement of current and proposed research, and 3) a statement of teaching experience and/or interests, and arrange to have three letters of recommendation sent to: **Dr. J. Clark Lagarias, Chair, Search Committee, Section of Molecular and Cellular Biology, University of California, Davis, CA 95616-8519.** Closing date: Open until filled, but all application materials, including letters of recommendation, must be received by October 31, 1995 to be assured full consideration. *The University of California, Davis, is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to the development of a climate that supports equality of opportunity and respect for differences based on gender, cultural ethnicity, disability, and sexual orientation. In that spirit, we are particularly interested in receiving applications from individuals who would enhance the diversity of our workforce.*

ECOLOGIST

Fordham University seeks applicants for a tenure-track position (**ASSISTANT/ASSOCIATE PROFESSOR**), beginning as early as January 1996. We seek individuals who will establish independently funded research and supervise Ph.D. and M.S. students at Fordham's biological field station, the Louis Calder Center in Armonk, New York. Area of specialization is open, but may include conservation of threatened habitats/species, or ecology of insects, birds, fish, or plant communities. The Calder Center is a wooded biological field station 45 minutes north of the main campus and provides faculty and students with a diversity of terrestrial and aquatic habitats, laboratories, classrooms, library, and residences. The successful candidate should have a commitment to undergraduate education and will teach undergraduate and graduate courses within the Department of Biological Sciences. A Ph.D. is required, postdoctoral experience is preferred. Applicants should submit curriculum vitae, statement of research and teaching interests, and the names and telephone numbers of three references to: **Dr. Berish Rubin, Chair, Ecologist Search Committee, Calder Center, Fordham University, Armonk, NY 10504.** Closing date is November 1, 1995. *Fordham University is an Equal Opportunity/Affirmative Action Employer.*

CELL/DEVELOPMENTAL BIOLOGIST

A tenure-track faculty position at the **ASSISTANT PROFESSOR** level is available in the Biology Department at Wesleyan University. Candidates should have an earned doctorate and postdoctoral experience and will be expected to set up an independent research program and to participate in the Departmental Ph.D. program. We are especially interested in candidates who use molecular or structural approaches to investigate fundamental problems in cell or developmental biology using a plant or animal system. Wesleyan's Biology Department is housed in well-equipped modern laboratories with a research-oriented faculty that successfully attracts outside funding. Teaching will be at the undergraduate and graduate levels in the areas of cell and developmental biology. Send curriculum vitae, statement of research plans, and have three letters of recommendation sent to: **Cell/Developmental Search Committee, Department of Biology, Wesleyan University, Middletown, CT 06459-0170** by November 30, 1995. *Wesleyan is proud of its record of commitment to diversity in the student body, the faculty and the staff, and encourages applications from women and persons of color. Wesleyan University is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

ASSISTANT PROFESSORS BIOLOGY DEPARTMENT WILLIAMS COLLEGE

The Biology Department invites applications for three anticipated tenure-track positions to begin July 1996 as follows:

Developmental biologist able to teach courses at the introductory level in cellular or organismal biology and at the upper level in developmental biology.

Plant molecular biologist able to teach courses at the introductory level in cellular and molecular biology and at the upper level in plant development and/or biochemistry.

Physiologist able to teach courses at the introductory level in organismal biology and at the upper level in animal physiology.

Candidates must have Ph.D. and postdoctoral experience and a strong commitment to undergraduate teaching and research. Senior appointment possible in exceptional circumstances. The standard teaching assignment in the department is one course and two laboratory sections per semester. Faculty members are expected to establish an independent research program that will involve undergraduates and that can attract external funding. Please send curriculum vitae, one-page statements of teaching and research interests, and three letters of recommendation by November 8, 1995 to: **Search Committee, Department of Biology, Williams College, Williamstown, MA 01267.** Please designate the position for which you are applying. *An Equal Opportunity/Affirmative Action Employer, Williams College especially welcomes applications from women and minority candidates.*

EXPERIMENTAL EVOLUTIONARY BIOLOGIST UNIVERSITY OF CALIFORNIA, DAVIS

The Division of Biological Sciences, University of California, Davis, invites applications for an **ASSISTANT PROFESSOR** of Evolution and Ecology (pending budgetary approval). This is a tenure-track position in the Section of Evolution and Ecology within the Division, which could include an appointment in the Agricultural Experiment Station. Candidates must have a Ph.D. (or equivalent) in biological sciences or a related field, and an outstanding, innovative program in experimental evolutionary biology. Areas of particular interest include character evolution, genetics of speciation, experimental population genetics, and evolution of host-pathogen interactions. The successful candidate will be expected to teach at the undergraduate and graduate level and to participate in the teaching and advising program coordinated by the Division of Biological Sciences and Graduate Studies. Applicants should submit 1) a curriculum vitae, 2) copies of published and in press manuscripts, 3) a description of current and projected research interests, and 4) a summary of teaching interests and experience, and arrange to have three letters of recommendation sent to: **Dr. John Gillespie, Chair, Search Committee, Section of Evolution and Ecology, University of California, Davis, CA 95616-8755.** Closing date: Open until filled, but all application materials, including letters of recommendation, must be received by October 31, 1995 to be assured full consideration. *The University of California, Davis, is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to the development of a climate that supports equality of opportunity and respect for differences based on gender, cultural ethnicity, disability, and sexual orientation. In that spirit, we are particularly interested in receiving applications from individuals who would enhance the diversity of our workforce.*

ASSISTANT/ASSOCIATE PROFESSOR

The Hollings Cancer Center at the Medical University of South Carolina is developing a program in Molecular Carcinogenesis. Applications are requested at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**. Preferred candidates will hold principal investigator status. Highly competitive start-up packages are available that include support for faculty and technical salaries, supplies, and major equipment purchases. Extensive core facilities including conventional and "knock out" transgenic mouse facilities are available.

Inquiries should include a complete curriculum vitae and statement of research interests and be directed to: **James S. Norris, Ph.D., Department of Medicine (CSB 912), Medical University of South Carolina, 171 Ashley Avenue, Charleston, SC 29425.** Email: **JIM_NORRIS@SMTPGW.MUSC.EDU.**

POSITIONS OPEN

MICROBIOLOGIST UNIVERSITY OF CALIFORNIA, DAVIS

The Division of Biological Sciences, University of California, Davis, invites applications for an **ASSISTANT PROFESSOR** of Microbiology (pending budgetary approval). This is a full-year, tenure-track position in the Section of Microbiology within the newly reorganized Division, which could include an appointment in the Agricultural Experiment Station. A Ph.D. (or equivalent) is required and postdoctoral experience is desirable. Candidates must have an outstanding record of achievement in research and will be expected to develop a strong research program in an area of molecular microbiology. An area that we seek to strengthen is eukaryotic microbial physiology and molecular genetics. The successful candidate will be expected to teach and/or advise at the undergraduate and graduate levels. Applicants should submit 1) a curriculum vitae, 2) a statement of current and proposed research, and 3) a statement of teaching experience and/or interests, and arrange to have three letters of recommendation sent to: **Dr. Daniel Klionsky, Chair, Search Committee, Section of Microbiology, University of California, Davis, CA 95616-8665.** Closing date: Open until filled, but all application materials, including letters of recommendation, must be received by October 31, 1995 to be assured full consideration. *The University of California, Davis, is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to the development of a climate that supports equality of opportunity and respect for differences based on gender, cultural ethnicity, disability, and sexual orientation. In that spirit, we are particularly interested in receiving applications from individuals who would enhance the diversity of our workforce.*

MOLECULAR AND CELLULAR NEUROSCIENCE POSITION NEURODEGENERATIVE DISEASE University of Connecticut Health Center School of Medicine

Evaluation of candidates is ongoing for the fourth of four new tenure-track positions in the areas of molecular and cellular neurobiology and neurogenetics related to neurodegenerative disease. This search is part of a state funded initiative in the neurosciences. Appointments will be made at the levels of **ASSISTANT PROFESSOR, ASSOCIATE PROFESSOR, and/or PROFESSOR** in the Department of Pharmacology. The appointees will also become members of the interdepartmental Program for Neurological Sciences. Areas of interest include, but are not restricted to, aging and Alzheimer's Disease, neuronal degeneration, demyelinating disease, and regenerative processes. Interest will be centered around individuals with the capacity to develop and lead strong, vigorous, independent research programs. Candidates should send curriculum vitae, a description of current and future research interests, and three letters of recommendation to: **Dr. Steven E. Pfeiffer, Chair of Search Committee, Department of Microbiology, University of Connecticut Medical School, Farmington, CT 06030-3205.**

An Affirmative Action/Equal Opportunity Employer/Minority/Female/People with Disabilities/Veteran.

COMPARATIVE VERTEBRATE PHYSIOLOGIST

The Department of Zoology, University of Toronto, invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level to begin July 1, 1996, subject to budgetary approval. We require a comparative vertebrate physiologist with a Ph.D. and postdoctoral experience who will develop a strong research program and teach at the undergraduate and graduate levels. The Department's traditional strengths in animal physiology, cell/developmental biology, ecology, and evolution provide fine opportunities for interdisciplinary interaction. We offer excellent research facilities and a competitive salary. Applicants should provide a curriculum vitae, an outline of their proposed research, and a summary of teaching interests, and should also arrange for three letters of reference to be sent to: **Chair, Physiology Search Committee, Department of Zoology, University of Toronto, Toronto, Ontario M5S 1A1, Canada.** FAX: **416-978-8532.** Closing date for applications is Friday, December 8, 1995. *In accordance with Canadian immigration requirements, this advertisement is directed to 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.*



**Teknikvetenskapliga
Forskningsrådet**
Swedish Research Council
for Engineering Sciences

**Visiting Professor Programme-Swedish
Research Council for Engineering Sciences
(TFR) - Sweden**

TFR is the main Swedish governmental funding agency for basic research within the Engineering Sciences, TFR works systematically to strengthen scientific competence within areas vital to Swedish industry. One important part of these efforts is to establish effective collaborations between renowned international scientists and the Swedish research community. The objective of the "visiting professor programme" is to bring leading scientists to Sweden to collaborate with Swedish colleagues on subjects important to the future of Swedish industry.

Seven visiting professorships will be open for distinguished scientists. TFR hereby invites persons of highest international reputation, within the different areas, to submit letters of interest including an outline of a research programme and a curriculum vitae. The selected scientists are expected to mainly do research and to a limited extent teach at a Swedish university during one academic year. TFR will pay a competitive salary and cover other costs connected with the professorship, e.g. travel and housing while working in Sweden and a small research budget. Candidates are expected to have established contacts with a Swedish university department concerning activities to be undertaken.

The areas under consideration are:

Mechanical Engineering - fatigue of engineering structures and materials

Microelectronics - high speed analogue and digital components and circuits

Biotechnology - enzyme based process technology

Engineering Physics - nanometer science and technology

Materials Science - advanced functional materials

Chemical Engineering - surface and colloid chemistry

Information Technology - mobile communication.

TFR encourages women scientist when the Engineering Science to apply. Final selection is made by a committee appointed by TFR. TFR reserves the right to invite candidate within the different areas. Discretion is guaranteed.

For general information concerning the visiting professor programme, please contact:

Professor Jan-Eric Sundgren **Dr. Anne-Marie Pilotti**
Secretary General Director of Secretariat

Box 7136, S-103 87 Stockholm, Sweden.,

Visiting address: Regeringsgatan 56.

Phone: +46 8 454 41 70 (voice), +46 8 454 41 80 (fax)

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POSITIONS OPEN



**OKLAHOMA
MEDICAL
RESEARCH
FOUNDATION**

SENIOR FACULTY POSITION Free Radical Biology and Aging Research

The Oklahoma Medical Research Foundation seeks an accomplished senior scientist with a good track record of research productivity in biomedical problems where reactive oxygen species and/or nitric oxide intermediates are considered important. Instrumental approaches using advanced methods in spin trapping and mass spectroscopy are readily available. These techniques combined with molecular biological methods would be desirable in conducting research basic to biomedical problems such as aging, neurodegenerative diseases, ischemia/reperfusion injury, and septic shock. The individual will hold a position equivalent to **ASSOCIATE PROFESSOR** or **PROFESSOR**. Interested individuals should direct a letter of inquiry with curriculum vitae to: **Dr. Robert Floyd, Free Radical Biology and Aging, Oklahoma Medical Research Foundation, 825 N.E. 13th Street, Oklahoma City, OK 73104.** An Equal Employment Opportunity/Affirmative Action Employer.

MOLECULAR GENETICIST UNIVERSITY OF CALIFORNIA, DAVIS

The Division of Biological Sciences, University of California, Davis, invites applications for an **ASSISTANT PROFESSOR** of Molecular and Cellular Biology (pending budgetary approval). This is a tenure-track position in the Section of Molecular and Cellular Biology within the Division, which could include an appointment in the Agricultural Experiment Station. This position reflects the Section's ongoing commitment to building strengths in genetics, molecular biology, and developmental biology. Candidates must have a Ph.D. (or equivalent) and an outstanding record of achievement in research. The successful candidate will be expected to develop a strong research program in molecular genetics with an emphasis on the mechanism and regulation of gene expression in eukaryotic cells. He or she will also be expected to teach genetics at the undergraduate and graduate levels. Applicants should submit 1) a curriculum vitae, 2) a statement of current and proposed research, and 3) a statement of teaching experience and/or interests, and arrange to have three letters of recommendation sent to: **Dr. Kenneth Burtis, Chair, Search Committee, Section of Molecular and Cellular Biology, University of California, Davis, CA 95616-8519.** Closing date: Open until filled, but all application materials, including letters of recommendation, must be received by October 31, 1995 to be assured full consideration. *The University of California, Davis, is an Affirmative Action/Equal Opportunity Employer with a strong institutional commitment to the development of a climate that supports equality of opportunity and respect for differences based on gender, cultural ethnicity, disability, and sexual orientation. In that spirit, we are particularly interested in receiving applications from individuals who would enhance the diversity of our workforce.*

PLANT ECOLOGIST

The Ecology and Evolution Group of the 40 member Department of Biological Sciences at the University of Illinois at Chicago is recruiting a tenure-track **ASSISTANT PROFESSOR** to start in 1996-97. Applicants must have a Ph.D., an interest in and ability to teach effectively at the undergraduate and graduate levels, and be able to direct productive research and develop a funded research program. The research area is open but we are especially interested in applicants who use physiological approaches to study terrestrial or wetland systems. We favor those who study how environmental change affects biological diversity. The successful applicant can expect an excellent startup package and release from teaching in the first year. Please send a letter of application, curriculum vitae, statements of teaching and research plans, at least four letters of recommendation, and further inquiries to: **Dr. Tom Poulson, Chair, Plant Ecology Search, University of Illinois at Chicago, Department of Biological Sciences (m/c 066) 845 West Taylor Street, Chicago, IL 60607-7060.** Email: U38592@uicvm.cc.uic.edu; FAX: 312-413-2435; Telephone: 312-996-4537. Screening will start 15 October 1995; closing date 15 November 1995. *University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

NEUROBIOLOGIST BOWMAN GRAY SCHOOL OF MEDICINE WAKE FOREST UNIVERSITY

The Department of Neurobiology and Anatomy invites applications for two tenure-track positions. Successful candidates will have postdoctoral experience, an excellent record of scholarship, and the potential to develop and maintain an active research program. The department is seeking an **Integrative Neurobiologist (ASSISTANT/ASSOCIATE PROFESSOR)** who uses modern systems, cellular, and/or molecular approaches in areas that complement current faculty research. Preference will be given to those individuals interested in mechanisms by which the nervous system integrates information from different sensory modalities. The department is also seeking a **Sensory Neurobiologist (RANK OPEN)** working in a CNS system with an emphasis on sensory processing, development, and/or plasticity. Departmental interests include sensory organization, development, and plasticity; retinal cell biology; neuron-glia interactions; programmed cell death; and trophic factors. Bowman Gray offers a unique opportunity to interact with a broad range of neurobiologists that comprise a strong, multidisciplinary neuroscience community. For additional information about the department, see <http://isnet.is.wfu.edu/bgsm/nba/nba.html>. Send curriculum vitae, research description, and three letters of recommendation to either: **Integrative Neurobiologist or Sensory Neurobiologist Search Committee, Department of Neurobiology and Anatomy, Bowman Gray School of Medicine, Wake Forest University, Medical Center Boulevard, Winston-Salem, NC 27157-1010.** *Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR. The Biology/Microbiology Department at South Dakota State University invites applicants for a tenure-track, nine-month, 100% Academic Programs funded appointment with research expectations. Instructional responsibilities include Biological Diversity, Mammalogy, Animal Behavior, and Invertebrate Zoology. Development of a collaborative research program and pursuit of extramural funding expected. An earned Ph.D. in Biological Science or closely related area with emphasis in organismal biology; background in mammalogy; collegiate teaching experience; demonstrated effective interpersonal and communication (verbal and written) skills required. A minimum of one year of postdoctoral research or similar experience desired. Preference given to candidates with demonstrated effectiveness in teaching; high productivity in natural resource related research; and potential and desire for developing collaborative teaching and research programs. Send letter of application, curriculum vitae, copies of transcripts, separate statements of teaching and research interests, documentation of qualifications related to the position's expectations, and have three letters of reference sent to: **Dr. Gary Peterson, Department of Biology and Microbiology, South Dakota State University, Box 2207B, Brookings, SD 57007.** Telephone: 605-688-6141; FAX: 605-688-6677; Email: petersog@mg.sdstate.edu. Call or write for additional information. Review of applications will start October 16, 1995 and the position will remain open until filled. Starting date is negotiable (January 1996 or August 1996). *Affirmative Action/Equal Opportunity Employer/ADA reasonable accommodations.* Telephone: 605-688-6361 (T/Voice 605-688-4394).

Gettysburg College invites applications for a tenure-track **ASSISTANT PROFESSOR** position in Environmental Studies, beginning August 1996. Candidates must have a Ph.D. in environmental studies or a related field, with a focus on resource management and environmental policy, and ability to teach introductory and upper-level environmental studies courses. Commitment to interdisciplinary teaching in the liberal arts tradition and to research involving students is essential. Gettysburg College is a highly selective liberal arts college located in beautiful and historic southern Pennsylvania, close to policy-making agencies in Harrisburg, Philadelphia, Baltimore, and Washington. Submit curriculum vitae, statement on teaching and research goals, and names and addresses of three referees (at least one of whom can speak to the candidate's teaching effectiveness) to: **Dr. John A. Commito, Coordinator, Environmental Studies Program, Gettysburg College, Gettysburg, PA 17325.** Review of applications will begin on December 8, 1995, and continue until position is filled. *The College is an Equal Opportunity/Affirmative Action Employer with a Partner Assistance Program. Women and minorities are encouraged to apply.*

POSITIONS OPEN

FACULTY POSITION DEPARTMENT OF MOLECULAR AND MEDICAL GENETICS Oregon Health Sciences University Portland, Oregon

Applications are invited for a tenure-track position at the **ASSISTANT/ASSOCIATE PROFESSOR** level. The Department seeks individuals who have demonstrated excellence in research. Preference will be given to candidates with research interests in molecular, cellular or developmental genetics of either simple or complex eukaryotes, including humans. Applicants should include a curriculum vitae, a brief description of research accomplishments, a brief description of future research goals, and the names of three references.

Deadline is October 31, 1995.

Please address applications to:

**Faculty Search Committee
Department of Molecular and
Medical Genetics, L103
Oregon Health Sciences University
3181 SW Sam Jackson Park Road
Portland, OR 97201-3098**

ANATOMIST

The Department of Anatomy at The University of Health Sciences College of Osteopathic Medicine seeks to fill an **ASSISTANT or ASSOCIATE PROFESSOR** position in Anatomy. Applicants should have a Ph.D. in Anatomy with experience teaching human gross anatomy (lecture and laboratory dissection) and histology. The person filling this position must have strong interest and commitment to teaching medical students. Other duties include scholarly work such as research or writing; active participation in departmental activities and professional development; service to the University on committees; and advising medical students. Must be a positive team player with exemplary professional and personal characteristics.

Salary is dependent on qualifications and experience; excellent benefits. Send curriculum vitae, graduate and undergraduate transcripts, a statement of teaching philosophy and scholarly interests, and the names and addresses of three references to:

**Robert E. Stephens, Ph.D.
Professor and Chair of Anatomy
University of Health Sciences—COM
2105 Independence Boulevard
Kansas City, MO 64124-2395**

Review of applicants will begin November 1, 1995. Position available January 1996. Pre-employment drug screen required. *An Affirmative Action/Equal Opportunity Employer.*

ASSISTANT PROFESSOR BIOLOGY

A **TENURE-STREAM** position is available beginning January 1 or September 1, 1996 teaching Anatomy and Physiology for nursing and allied health students, Vertebrate Anatomy for paraprofessional students, and other courses as needed, perhaps Introductory Biology and Human Physiology. The successful candidate must have a completed Ph.D. Teaching experience will be advantageous. Area of research specialty open. Send 1) letter of application stating teaching and research goals, 2) curriculum vitae, 3) three letters of recommendation, and 4) transcripts for all degrees. Review of applications will begin late October 1995 and will continue until the position is filled. Applications should be sent to:

**W. Eugene Foor, Ph.D.
Department of Biology
University of Pittsburgh at Johnstown
Johnstown, PA 15904**

The University of Pittsburgh is an Affirmative Action Employer. Women and minority candidates are urged to apply.

The Department of Biochemistry, Duke University Medical Center invites applications for a faculty position at the level of **ASSISTANT PROFESSOR**. We are especially interested in biochemists with experience in structural biology. Send résumé, summary of research interest, and three letters of reference to: **Christian R. H. Rietz, Department of Biochemistry, Duke University Medical Center, Durham, NC 27710.** Consideration of applications will commence in November 1995. *Duke University is an Equal Opportunity/Affirmative Action Employer.*



**Harvard Medical School
Department of Pathology**

The Department of Pathology at Harvard Medical School seeks well-qualified (Ph.D., M.D./Ph.D. or M.D.) applicants for two tenure-track positions at the **Assistant or Associate Professor** level with research interests in the areas of Cancer Biology or Immunology.

As part of an expansion of a basic research program in **Cancer Biology**, the Department is recruiting an outstanding candidate who has completed three-to-five years of relevant postdoctoral or independent research, and who has the capability of directing an independent research program in an academic setting in the area of cell-cycle control, transcriptional regulation, tumor suppressor genes, signal transduction, or viral oncology as it relates to cancer biology.

For the position of **Immunobiology**, candidates should have completed three-to five years of relevant postdoctoral or independent research, and have the capability of directing an independent research program in an academic setting in the area of cytokines, cytokine receptors, transcriptional regulation, signal transduction, or tumor immunology as it relates to immunobiology.

Candidates are expected to participate in the teaching activities of the Department for medical students, graduate students, and postdoctoral fellows. Recently renovated laboratory research space and attractive start-up support packages are available for these recruitments. Applicants should send their *curriculum vitae*, a statement of research interest, and the names of three references to: **Dr. Peter M. Howley, Department of Pathology, Harvard Medical School, Building D2, 6th floor, 200 Longwood Avenue, Boston, MA 02115**. Please identify the position for which you wish to be considered. *Harvard Medical School is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

**ROYAL FREE HOSPITAL
SCHOOL OF MEDICINE
(UNIVERSITY OF LONDON)**



**FOUNDATION PROFESSOR
IN RETROVIROLOGY
(Clinical or Non-Clinical)**

A new post has been established for a Foundation Professor in Retrovirology to develop an active research programme and to develop a new Unit. We are looking for a person with an extensive record of achievement in retrovirus research, whose work has been recognised by continued research grant support and publication in peer-reviewed journals over a number of years, with particular emphasis on HIV. The research should be relevant to active academic programmes within the Departments of Public Health (including Clinical Epidemiology), Virology and Clinical Immunology and close links are anticipated with the clinical teams headed by Dr Margaret Johnson and Dr Christine Lee. A clinical appointment will include an Honorary Consultant contract with the Royal Free Hampstead NHS Trust.

Further details are available from the School Office, RFHSM, Rowland Hill Street, London NW3 2PF (tel: 0171-794 0500 x 4262). Applicants should send TEN copies of their CV (please include ten copies of any covering letter), together with full details of two referees to the above address by 23 October 1995. Overseas applicants should forward their papers by Air Mail or by a Courier Service. Please quote reference no: VIR/PROF/146.

Informal visits are encouraged (The Dean, Professor Arie Zuckerman, extension 4263; Dr Margaret Johnson, extension 3082; Dr Christine Lee, extension 3808; Professor Paul Griffiths, extension 3210).

Royal Free Hospital School Of Medicine Is An Exempt Charity Pursuing Excellence In Medical Research And Education.

GLOBAL CAREER OPPORTUNITIES

**NATIONAL UNIVERSITY OF SINGAPORE
DEPARTMENT OF PHARMACY**



Applicants with the appropriate qualifications and experience are invited to apply for **teaching appointments** in the following areas:

<u>Areas</u>	<u>Qualifications</u>
Pharmaceutical Chemistry	PhD with a basic degree in Pharmacy
Pharmacy Practice	Pharm D with postdoctoral research experience in Clinical Pharmacy

Gross annual emoluments range as follows:

Lecturer	S\$ 56,920 - 72,590
Senior Lecturer	S\$ 66,320 - 129,600
Associate Professor	S\$140,830 - 189,920
(US\$1.00 = S\$1.42 approximately)	

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered. In addition, a 13th month Annual Allowance (of one month's salary) and an Annual Variable Component (of normally 2 months' salary) may be payable at year end, under the flexible wage system, to staff on normal contracts.

Leave and medical benefits will be provided. Other benefits may include: an end-of-contract gratuity, a settling-in allowance, subsidised housing or a housing allowance, education allowance for up to three children subject to a maximum of S\$16,425 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross annual emoluments in a calendar year.

All academic staff will be given a networked personal computer (Pentium or Macintosh PowerPC) with access to a Cray supercomputer, UNIX hosts, departmental laser printers, a wide spectrum of software, on-line library catalogue, CD-ROM databases, Televue, INtv and Internet.

Application forms and further information on terms and conditions of service may be obtained from:

**The Director
Personnel Department
National University of Singapore
10 Kent Ridge Crescent
Singapore 119250**

**The Director
North America Office
National University of Singapore
55 East 59th Street
New York, N.Y. 10022, U.S.A.
Tel: (212) 751-0331**

Enquiries may also be sent through **INTERNET** to: **PERCNC@NUS.SG**, or through **Telefax: (65)7783948**

POSITIONS OPEN

SEATTLE BIOMEDICAL RESEARCH INSTITUTE (SBRI) AND DEPARTMENT OF PATHOBIOLOGY, UNIVERSITY OF WASHINGTON (UW)

Applications are invited for **STAFF** or **SENIOR SCIENTIST** positions (SBRI) with parallel Regular or Research **ASSISTANT** or **ASSOCIATE PROFESSOR** appointments (UW). The applicant's research should examine mechanisms of pathogenesis or study basic processes in pathogens or host cells that may be exploited to control disease. This research will complement the major research focus at SBRI on protozoan and prokaryote pathogens. Applicants must have an independently funded research program and an interest in graduate student training. Classroom teaching is required for faculty in the Regular track. Please send curriculum vitae, statement of proposed research, and the names and addresses of four references to: **Search Committee, Seattle Biomedical Research Institute, 4 Nickerson Street, Seattle, WA 98109-1651**. Closing date: 6 November 1995. *The UW is building a culturally diverse faculty and strongly encourages applications from female and minority candidates. SBRI and UW are Equal Opportunity/Affirmative Action Employers.*

We have an immediate opening in the Division of Toxicology in the Department of Pharmacology and Toxicology at Indiana University School of Medicine for a Toxicologist at the non-tenure-track **ASSISTANT PROFESSOR** level. The position is a state-funded permanent position (hard money) within the State Department of Toxicology in the Division of Toxicology. The successful applicant will be responsible to the Director of Toxicology in the Division of Toxicology. The applicant will assist in directing a small Forensic Laboratory and participate in the Alcohol/Breath Test Program for the State of Indiana. The remaining 50% of this individual's duties will center on teaching of graduate students and medical students and participation in investigative research. While the acquisition of extramural funding is encouraged, this would not be a requirement for this position. Salary will be commensurate with experience and training. Indiana University offers an excellent fringe benefit package to all faculty members. Opportunities for advancement within the Division of Toxicology and the Department of Pharmacology and Toxicology exist for the successful candidate based upon productivity. Experience in the area of Forensic Toxicology is not a requirement. Apply to: **James E. Klaunig, Ph.D., Director of Toxicology, Indiana University School of Medicine, 1001 Walnut Street, MF 003, Indianapolis, IN 46202. Telephone: 317-274-7824.** *An Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR NEUROSCIENCE

The Florida State University invites applications for an anticipated tenure-track position at the **ASSISTANT PROFESSOR** level in the Department of Psychology and the Program in Neuroscience. Preference will be given to candidates with expertise and research experience in sensory processes. In addition to pursuing an active research program, applicants are expected to participate in undergraduate and graduate teaching. Applicants must have a Ph.D. and postdoctoral training. Send curriculum vitae, selected reprints, a statement of anticipated research direction, and the names of three references by December 22, 1995 to: **Neuroscience Search Committee Chair, Department of Psychology, Florida State University, Tallahassee, FL 32306-1051**. For information about the Department and the Neuroscience Program, see: <http://www.psy.fsu.edu>. *Florida State University is an Equal Opportunity/Affirmative Action Employer.*

ASSISTANT PROFESSOR. The Department of Physiology invites applications for one assistant professor position (tenure-track). Ph.D. degree or equivalent with three years of postdoctoral training. Candidates who plan to develop an independent research program in cellular, molecular or biophysical aspects of cell signaling systems or membrane biology are especially encouraged to apply. However, excellent candidates in all areas of cell physiology will be given serious consideration. Applicants should submit curriculum vitae and a brief statement of research plans and have three letters of reference sent to: **James T. Stull, Ph.D., Department of Physiology, The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235-9040.** *An Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

HAVERFORD COLLEGE

The Molecular, Cellular and Developmental Biology Department seeks a tenure-track faculty member at the **ASSISTANT PROFESSORIAL** rank for the fall of 1996. The successful applicant will teach introductory and advanced courses in the Biology Department on the structure and function of macromolecules. S/he will receive teaching credit for maintaining an active research program with extensive undergraduate engagement involving the study of an important cell biological problem at the level of macromolecular structure and mechanism of action. S/he will also be expected to participate actively in the teaching of non-scientists as well as students enrolled in the interdisciplinary Area of Concentration in Biochemistry and Biophysics. Postdoctoral research experience is required. Please send curriculum vitae, statements of research plans (one to three pages) and of teaching interests, and three letters of recommendation by November 1, 1995 to: **Dr. Judy Owen, Biology Search, Haverford College, Haverford, PA 19041-1392.** *Haverford College, located 10 miles west of Philadelphia, is an Equal Opportunity/Affirmative Action Employer; women and minority candidates are especially encouraged to apply.*

ASSISTANT PROFESSOR

The Department of Anatomy and Cell Biology, University of Kansas School of Medicine (KUMC), invites applications from neuroscientists to fill a new **TENURE-TRACK** faculty position as an assistant professor. The position includes a competitive package of salary, benefits, laboratory space, and startup funds. The earliest beginning date for the position is June 1996. Applicants should have a Ph.D. or equivalent degree and two to five years of postdoctoral experience in neuroscience. The successful candidate will participate in teaching medical neuroscience and graduate level courses, and will develop an externally-funded, innovative research program in neurobiology. Applications should include a curriculum vitae, a summary of present and future research interests, and the names and addresses of three references. Send applications to: **Ronal R. MacGregor, Ph.D., Search Committee Chairman, Department of Anatomy and Cell Biology, University of Kansas Medical Center, 39th Street and Rainbow Boulevard, Kansas City, KS 66160-7400.** *KUMC is an Equal Opportunity Employer.*

STANFORD UNIVERSITY DEPARTMENT OF PATHOLOGY

The Department of Pathology seeks outstanding scientists for tenure-track appointment as **ASSISTANT** or **ASSOCIATE PROFESSOR**. Successful candidates are expected to develop a high quality, independent research program in an area related to molecular and cellular mechanisms of disease. Of particular interest are candidates focusing on cancer biology or cardiovascular disease processes. Applicants with Ph.D., M.D., or combined degrees will be considered. There are also possibilities for qualified applicants to participate in clinical activities. Applicants should submit a curriculum vitae, a brief description of research accomplishments, and a concise statement of plans for future research. These, with the names of three references, should be sent to: **Klaus Bensch, Professor and Chairman, Department of Pathology, Stanford University School of Medicine, Stanford, CA 94305.** *Stanford University is committed to increasing representation of women and members of minority groups on its faculty and particularly encourages applications from such candidates.*

Developmental Biologist. The Department of Biology at the University of North Carolina at Greensboro (UNCG) has a nine-month tenure-track position offering competitive start-up funds for an **ASSISTANT PROFESSOR** beginning 1 August 1996. We seek an individual who will 1) develop a research program in developmental biology; 2) train undergraduate and graduate students in research; and 3) teach mammalian anatomy (one semester per year), vertebrate morphogenesis (one semester per two years), introductory biology (one semester per two years), and courses in his or her specialty. Postdoctoral experience is essential. Applicants should submit a statement of research and teaching interest, a curriculum vitae, reprints, and three letters of reference by 1 November 1995 to: **Dr. Vince Henrich, Search Committee Chair, Department of Biology, UNCG, Greensboro, NC 27412.** *Equal Employment Opportunity/Affirmative Action, Women/Minority/Veteran/Disabled.*

POSITIONS OPEN

FACULTY POSITIONS

Cornell University Medical College Department of Pharmacology

Candidates are sought for tenure-track positions at the level of **ASSISTANT PROFESSOR**. Candidates with interests in a wide range of areas related to the disciplines of pharmacology and clinical pharmacology will be considered. The responsibilities of this position include development of an active, independent research program and participation in both medical and graduate student teaching programs in the department. Applicants should send a curriculum vitae, a summary of proposed research, and should arrange to have letters sent from at least three scientists who can evaluate the candidate's accomplishments. Cornell University Medical College is a part of the New York Hospital-Cornell Medical Center and adjacent to Memorial Sloan-Kettering Cancer Center and Rockefeller University. Applications should be sent to: **Chair, Pharmacology Search Committee, c/o Room E-409, Pharmacology Department, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** *Equal Employment Opportunity/Affirmative Action/Minority/Female/Disabled/Veteran.*

ASSISTANT PROFESSOR OF BIOCHEMISTRY

Applications are invited for a tenure-track faculty position at the **ASSISTANT PROFESSOR** level in the Department of Chemistry and Biochemistry at Utah State University. The successful applicant will actively participate in the Ph.D. degree program in biochemistry and will be expected to develop a nationally recognized research program that complements our existing faculty interests. Applicants working on metals and free radicals in protein and nucleic acid biochemistry are encouraged to apply. Teaching responsibilities will include undergraduate and graduate biochemistry and general chemistry courses. A Ph.D. degree and postdoctoral experience are required. A curriculum vitae, outline of planned research, statement of teaching philosophy and three letters of recommendation should be sent to: **Biochemistry Search Committee, Department of Chemistry and Biochemistry, Utah State University, Logan, UT 84322-0300.** Review of completed applications will begin 31 October 1995 and will continue until the position is filled. Logan is located in the scenic Cache Valley, which offers rural and small city living adjacent to wilderness areas. *Utah State University is an Equal Opportunity/Affirmative Action Employer, and applications from women and minorities are encouraged.*

ASSOCIATE PROFESSOR POSITION in the Department of Molecular Microbiology and Immunology at Oregon Health Sciences University. Requirements include a Ph.D. degree in Molecular Biology; extensive experience in teaching undergraduates, graduate and postdoctoral fellows; a minimum of 40 publications in peer-reviewed journals; 25 years of research experience in molecular biology, virology, and immunology with emphasis on Herpes simplex virus membrane proteins and virus-induced membrane fusion; viral receptors and modes of entry of the virus into cells; cellular immune response to viral infection and viral glycoproteins; the role played by the immune system in virus latency in the nervous system. Send curriculum vitae by November 1, 1995 to:

**Paula Hearn
Oregon Health Sciences University
Department of Molecular Microbiology
and Immunology
Mail Code L220
Portland, OR 97201-3098**

Oregon Health Sciences University is an Equal Opportunity, Affirmative Action Employer.

ASSISTANT PROFESSOR PHARMACOLOGY AND TOXICOLOGY

A **TENURE-TRACK FACULTY** position is available in the Department of Medical Pharmacology and Toxicology. Areas of special interest are cardiovascular and ocular systems. The successful candidate is expected to develop a strong independent research program. Send application by November 1, 1995; the position will be available January 1996. Applications should include curriculum vitae, selected reprints, statement of research interests and three letters of reference to: **Dr. James L. Way, Chair, Search Committee, Department of Medical Pharmacology and Toxicology, Texas A&M University School of Medicine, College Station, TX 77843-1114.** *Equal Opportunity/Affirmative Action Employer.*

Postdoctoral Opportunities In The Biomedical Sciences.

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

Cellular Responses to Stress and Aging

Nikki J. Holbrook, PhD

The signal transduction pathways mediating cellular responses to heat shock and genotoxic stress are being investigated in normal cells and in aging models. The connection between these processes and the roles of cyclins, cyclin dependent kinases (cdk), and cdk inhibitors in controlling growth and/or inducing apoptosis in damaged cells is being studied. Applicants should have less than five years of postdoctoral experience. Laboratory of Cellular and Molecular Biology (OE-99), NIA, GRC Building, Room 2E09, 4940 Eastern Avenue, Baltimore, MD 21224.

Developmental Neurobiology

Phillip G. Nelson, MD, PhD

A position is available to focus on problems of synapse formation, synapse elimination and neural network formation. Studies of cellular and molecular mechanisms will require experience in molecular biological techniques including quantitative polymerase chain reactions, Western blot and ELISA analyses. Applicants must have less than five years of postdoctoral experience. Laboratory of Developmental Neurobiology (OE-99), NICHD, Building 49, Room 5A38, 49 CONVENT DR MSC 4480, BETHESDA MD 20892-4480.

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 with an MD or PhD must have a minimum of two years training in dermatology. Dermatology Branch (OE-99), NCI, Building 10, Room 12N238, 10 CENTER DR MSC 1908, BETHESDA MD 20892-1908.

Molecular Neurobiology

J. S. Hong, PhD

The signal transduction pathways regulating the expression of neuropeptide and cytokine genes in neural and glial systems are being investigated. Studies on the effects of neuropeptides on the biosynthesis and release of cytokines in microglial cells and potential roles of cytokines in neurodegeneration will be conducted. Applicants should have experience in neuropharmacology, neurochemistry, or molecular biology. Laboratory of Environmental Neuroscience (OE-99), NIEHS, Building 101, Room E1-44, P.O. Box 12233, Mail Drop E1-01, Research Triangle Park, NC 27709.

Signal Transduction

Peter M. Blumberg, PhD

The basis for heterogeneity in the signal transduction pathway for the lipophilic second messenger diacylglycerol and its analogs (the phorbol ester tumor promoters) is being investigated. Although protein kinase C receives primary emphasis, other targets such as the chimaerins are also being evaluated. Experience in molecular biology and pharmacology is preferred. Cellular Carcinogenesis and Tumor Promotion (OE-99), NCI, Building 37, Room 3A01, 37 CONVENT DR MSC 4255, BETHESDA MD 20892-4255.

Signal Transduction

Teresa L. Z. Jones, MD

A position is available to study the membrane localization of heterotrimeric G proteins. Research focuses on the role of lipid modifications on G protein membrane attachment and signaling functions and how protein interactions target G proteins to specific intracellular sites. Experience in biochemistry or cell biology is desirable. Applicants should have less than five years of postdoctoral experience. Metabolic Diseases Branch (OE-99), NIDDK, Building 10, Room 8C101, 10 CENTER DR MSC 1752, BETHESDA MD 20892-1752.

Structural Biology

James H. Hurley, PhD

The structural foundations of several key cell signaling and regulatory systems from the plasma membrane to the nucleus are being explored. Candidates should have an experimental background in protein biochemistry or structure, a strong interest in x-ray crystallographic structure determination, and not more than five years of previous postdoctoral experience. Laboratory of Molecular Biology (OE-99), NIDDK, Building 5, Room 435, 5 CENTER DR MSC 0580, BETHESDA MD 20892-0580. E-mail: hurley@tove.niddk.nih.gov.

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://wylbur.cu.nih.gov](mailto:wylbur.cu.nih.gov)). When connected to NIH, key in ,vt100 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.



National Institutes Of Health

Office Of Education

The NIH is an Equal Opportunity Employer

POSITIONS OPEN

MOLECULAR, CELL, AND DEVELOPMENTAL BIOLOGY University of South Carolina

The Department of Biological Sciences at the University of South Carolina invites applications for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR**. The Department is interested in all areas of molecular, cell, and developmental biology, although individuals with expertise in Signal Transduction are particularly encouraged to apply. The University maintains a wide range of shared core facilities that are readily available to all faculty. These include, among others, facilities for oligonucleotide synthesis, monoclonal antibody production, transgenic mice, automated DNA sequencing, light and electron microscopy, and laser scanning confocal microscopy. The Search Committee will begin reviewing applications on October 15, 1995. Interested individuals should send updated curriculum vitae, a description of research interests, and three letters of recommendation to: **Dr. Franklin G. Berger, Search Committee Chairman, Department of Biological Sciences, University of South Carolina, Columbia, SC 29208.** The University of South Carolina is an Equal Opportunity/Affirmative Action Employer.

GENETICIST

The Department of Biology at Loyola University Chicago invites applications for a tenure-track position at the **ASSISTANT PROFESSOR** level. Candidates must hold the Ph.D. degree and have postdoctoral training. Preference will be given to the research areas of molecular evolution or developmental genetics; however, other areas of research will also be considered. We are seeking an individual to teach Genetics, General Biology and an upper level course in his or her area of expertise. The individual will also be expected to develop an active research program and direct M.S. graduate and undergraduate research. Review of applications will begin November 1, 1995, with a starting date of August 15, 1996. Submit letter of application, curriculum vitae, description of research interests, reprints, and have three letters of recommendation sent directly to: **Dr. William J. Wasserman, Department of Biology, Loyola University Chicago, 6525 North Sheridan Road, Chicago, IL 60626.** Email: wwasserman@luc.edu. Information about the Department of Biology can be found at <http://www.luc.edu/depts/biology/>. Loyola University Chicago is an Affirmative Action/Equal Opportunity Employer.

Plant Molecular Biologist. The Institute of Biological Chemistry at Washington State University invites applications for a tenure-track position at the **ASSOCIATE** or **FULL PROFESSOR** level beginning July 1, 1996. This is an 89% research and 11% teaching position on a 12-month salary. Applicants should have a nationally/internationally recognized, extramurally-funded research program that uses molecular and biochemical or cellular approaches to an important problem in plant biology and agriculture. The Institute provides an excellent research environment with more than 100 scientists, expansive plant growth facilities, and access to the latest analytical instrumentation and techniques. Candidates should send a curriculum vitae, extramural funding record, a statement of research interests, a description of future research directions, and three letters of recommendation to: **Dr. Thomas W. Okita, Chair, Search Committee, Institute of Biological Chemistry, Washington State University, Pullman, WA 99164-6340.** Telephone: 509-335-3391; FAX: 509-335-7643. Applications will be accepted until December 31, 1995, or until a suitable candidate is identified. Equal Opportunity/Affirmative Action Employer/ADA.

BIOCHEMISTRY, PROGRAM DIRECTOR

Alma College invites applications at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level for a tenure-track position beginning in the fall of 1996. A Ph.D. and a successful record of undergraduate teaching, scholarly activity and academic leadership are required. This position presents a unique opportunity to shape the future of the college's growing degree program in biochemistry. Applicants should send a curriculum vitae, names and telephone numbers of three references and a statement describing the role of a biochemistry program at an outstanding liberal arts college to: **Dr. Eugene Deci, Biochemistry Search Committee, Alma College, Alma, MI 48801-1599.** Review of applications will begin on November 1, 1995. Alma is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

ENVIRONMENTAL SCIENTIST DIRECTOR

Claremont McKenna College, a member of the Claremont cluster of colleges, seeks to hire a person at the advanced **ASSOCIATE** or **FULL PROFESSOR** level to serve as Director of the Roberts Environmental Center, an institute for research and undergraduate education in interdisciplinary approaches to environmental problems. The director will be expected to establish an active research program, administer the institute and its associated major program of undergraduate study, advise undergraduate students in research and clinic projects, and teach four undergraduate courses related to environmental science, up to two of which requires supervising undergraduate research projects. Candidates must have a record of outstanding achievement in research on environmental problems and experience in teaching and administration. Candidates should have conducted applied environmental scientific research. Salary commensurate with experience. Claremont McKenna College is a small, selective liberal arts college with a curricular emphasis on economics and policy studies. Please send a résumé and arrange to have at least three letters of recommendation forwarded to: **Anthony Fucaloro, Dean of the Faculty, Claremont McKenna College, 500 East Ninth Street, Claremont, CA 91711-6400.** Review of applications will begin November 1, 1995 and will continue until the position is filled. Claremont McKenna College is an Affirmative Action/Equal Opportunity Employer. Women and minority candidates are encouraged to apply.

ASSOCIATE DEAN RESEARCH

Northwestern University Medical School invites applications or nominations for the position of **ASSOCIATE DEAN** for Research and Graduate Studies. Candidates should have a doctoral degree, a record of excellence in biomedical research, and administrative experience.

The Associate Dean reports to the Vice Dean and is responsible for providing leadership in research program development, research services and infrastructure, graduate education, technology transfer and academic-industrial relations, and research integrity. Candidates should be qualified for a senior faculty appointment.

Submit curriculum vitae and three referee names in confidence by December 1, 1995 to: **Donald Nutter, M.D., Vice Dean, at Ward 4-153, 303 East Chicago Avenue, Chicago, IL 60611.** Northwestern University is an Affirmative Action/Equal Opportunity Employer.

DIRECTOR TRANSGENIC MOUSE CORE FACILITY

The University of Chicago is seeking a **RESEARCH SCIENTIST** to direct a transgenic mouse core facility used by a diverse group of investigators. Appropriate background and training required. Experience with ES cell technology preferable. Send curriculum vitae with names and addresses of three references to:

**Kenneth S. Polonsky, M.D.
The University of Chicago
MC 1027
5841 South Maryland Avenue
Chicago, IL 60637**

UNIVERSITY OF CHICAGO Department of Organismal Biology and Anatomy

The Department of Organismal Biology and Anatomy seeks applicants for a **TENURE-TRACK** position beginning July 1, 1996. We expect to fill this position at the level of assistant professor, but individuals at a higher rank will also be considered. The Department seeks an individual who will develop an outstanding research program in, or overlapping with, the areas of developmental biology, biomechanics and physiology, or neurobiology, to build on the Department's existing strengths in these areas. We seek individuals studying organismal function in an integrative context. Teaching responsibilities will include undergraduate and graduate coursework. Applicants should submit a curriculum vitae, summary of research interests, and four letters of reference to: **OBA Search Committee Chair, University of Chicago, 1025 East 57th Street, Chicago, IL 60637.** Review of applications will commence 1 December 1995; however, applications will be accepted until the position has been filled.

The University of Chicago is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are strongly encouraged to apply.

POSITIONS OPEN

DIRECTOR, PUBLIC INFORMATION Ocean Drilling Program (ODP) Joint Oceanographic Institutions (JOI)

JOI is seeking a Director of Public Information to design and execute a strategy for communicating the scientific achievements of ODP to the broader community. ODP is an international basic research endeavor to explore the world's ocean basins to better understand the evolution of the earth, oceans, and climate (see <http://www-odp.tamu.edu/>). It is the largest such program in the world, currently funded by 19 countries operating through the U.S. National Science Foundation.

The new Director will be based in JOI's Washington, DC office. The ideal candidate will have a science/journalism background, relevant experience, excellent communication skills, and will have previously developed and implemented a public information plan. The position requires someone who is resourceful, well-read, and able to work comfortably with international contacts in a variety of organizations and settings.

We offer a competitive salary and a comprehensive benefits package. Closing date for the position is October 31, 1995. Send applications or address questions to: **Director of Administrative Services, JOI Inc., 1755 Massachusetts Avenue, NW, Suite 800, Washington, DC 20036-2102, USA.** Equal Employment Opportunity—Minority/Female/Disabled/Veteran.

THREE FACULTY POSITIONS DEPARTMENT OF BIOLOGICAL SCIENCE

Western Michigan University seeks applications for three **TENURE-TRACK** Assistant Professor positions beginning fall 1996, pending budgetary approval. 1) Cellular or molecular aspects of neurobiology. A Ph.D. in a related field is required as well as postdoctoral training. Preference will be given to candidates with research interests in neurobiology, neurotoxicology, or signal transduction. Teaching responsibilities will include an undergraduate course in human anatomy. 2) Cellular Pharmacology or Cell Biology. A Ph.D. in a related field is required as well as postdoctoral training. Preference will be given to candidates with research interest in cellular aging and/or signal transduction. 3) Ecology. A Ph.D. in a related field is required as well as postdoctoral training. Preference will be given to candidates with research interests in fresh water ecology, bioremediation, or ecological genetics and research using molecular techniques. Teaching responsibilities will include an undergraduate course in ecology and graduate level courses in area of expertise. The development of externally funded research and participation in the department's Master's and doctoral programs is expected for all three positions. Send letter of application, curriculum vitae, statement of research plans, transcripts, and three letters of reference to: **Leonard C. Ginsberg, Chair, Department of Biological Sciences, Western Michigan University, Kalamazoo, MI 49008-3899.** FAX: 616-387-2849; Internet: leonard.ginsberg@wmich.edu. For information about Western Michigan University see <http://www.wmich.edu>. Review of applications will begin November 1, 1995 and applications will be accepted until the positions are filled. Western Michigan University, a Carnegie Classification Doctoral I Institution and Equal Opportunity Employer, has an Affirmative Action program which encourages applications from underrepresented groups.

WHEATON COLLEGE BIOLOGY DEPARTMENT

The Wheaton College Biology Department is seeking applications for **TWO TENURE-TRACK POSITIONS**: 1) Strohschein Endowed Chair and Chair of Biology at the associate or professor level with experience managing academic programs; 2) Assistant or associate professor. Successful applicants for these positions should have teaching and/or research experience in two or more of the following areas of biology: botany or zoology, electron microscopy, science education, introductory biology and cross-disciplinary approaches. Involvement could include teaching at the Wheaton College Science Station Program in the Black Hills of South Dakota. Application forms should be requested from and nominations sent to: **Dr. Rodney Scott, Interim Chair, Department of Biology, Wheaton College, Wheaton, IL 60187.** Closing date is November 17, 1995. Wheaton College is an evangelical Christian liberal arts college whose faculty and staff affirm a Statement of Faith and adhere to lifestyle expectations. The College complies with federal and state guidelines for nondiscrimination in employment. Women and minority applicants are encouraged to apply.

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

The Howard Hughes Medical Institute, an Equal Opportunity Employer, welcomes applications from all qualified candidates and encourages women and members of minority groups to apply.

POSITIONS OPEN

ASSISTANT PROFESSOR Baylor College of Medicine

The Department of Molecular Physiology and Biophysics has a tenure-track **ASSISTANT PROFESSOR** position available. Qualifications include a doctorate in one of the biological sciences and at least two years of postdoctoral training. The candidate should have a research program in the area of structure and function of membrane proteins. We are especially interested in candidates working with ion channels or other membrane proteins in the cardiovascular system and who have demonstrated ability to obtain research funding. Please send curriculum vitae, a statement of research interests, and three letters of recommendation to: **Chair, Recruiting Committee, Department of Molecular Physiology and Biophysics, Baylor College of Medicine, One Baylor Plaza, Houston, TX 77030.** Closing date for applications is December 31, 1995.

Baylor College of Medicine is an Equal Opportunity/Affirmative Action/Equal Access Employer.

WAKE FOREST UNIVERSITY Biophysics/Medical Physics/Bioengineering Assistant Professor, Department of Physics

The Wake Forest University Physics Department invites applications for a tenure-track position of **ASSISTANT PROFESSOR** in molecular biophysics, biological physics, medical physics, or bioengineering, beginning August 1996. The department seeks candidates with outstanding postdoctoral research records and teaching capabilities. The successful candidate will be expected to excel in both undergraduate and graduate teaching of physics, to establish an independent research program, to attract outside funds, and to supervise undergraduate and graduate student research. Start-up support will be provided. Collaboration with researchers at Wake Forest's Bowman Gray School of Medicine, Chemistry, or Biology Departments is strongly encouraged. Wake Forest, located in Winston-Salem, North Carolina, is a private university with 3600 undergraduates, 520 graduate students, and professional schools of medicine, law, and business. The Department of Physics offers B.A., B.S., M.S., and Ph.D. degrees; there are currently 20 graduate students. Applicants should send a curriculum vitae, a statement of teaching philosophy, a summary of plans for a research program, and arrange for three letters of reference that include an evaluation of the candidate's potential for teaching and research. Applications should be mailed (or FAX: 910-759-6142) by January 1, 1996, to: **Howard W. Shields, Department of Physics, P.O. Box 7507, Wake Forest University, Winston-Salem, NC 27109.** *Wake Forest University is an Equal Opportunity/Affirmative Action Employer.*

RESEARCH ASSISTANT PROFESSOR or **POSTDOCTORAL POSITION** is available immediately to study the gating mechanisms of ion channels. Research is directed at determining the structure-function relationship for the gating kinetics of Ca-activated K channels (BK channels) using cloned channels expressed in oocytes. A Ph.D. and experience in molecular biology techniques applicable to ion channel structural modifications are required. Patch clamping skills would also be useful. The salary and level of appointment are flexible and will depend on the applicant's experience. The position includes faculty level health benefits. Send curriculum vitae (ASAP) with the names and telephone numbers of three references to: **Dr. Karl L. Magleby, Department of Physiology and Biophysics, University of Miami School of Medicine, P.O. Box 016430, Miami, FL 33101.** Email: kmagleby@mednet.med.miami.edu; FAX: 305-243-6898; Telephone: 305-243-6236. *An Affirmative Action/Equal Opportunity Employer.*

RESEARCH INSTRUCTOR OF MEDICINE

The Division of Atherosclerosis, Nutrition and Lipid Research at Washington University School of Medicine has an unexpected opening for **RESEARCH INSTRUCTOR** of Medicine. A Ph.D. or M.D. with training and experience in molecular and cell biology is sought to join projects in molecular genetics and cell biology of human low cholesterol syndromes. Responsibilities include help in the design and execution of experiments, teaching of postdoctoral fellows, and supervision of technicians. Opportunities for advancement and further training. Send curriculum vitae and two letters of recommendation to: **Gustav Schonfeld, M.D., Washington University School of Medicine, 660 South Euclid, Box 8046, St. Louis, MO 63110.**

POSITIONS OPEN

POSTDOCTORAL POSITIONS University of Missouri-Columbia

The Food for the 21st Century Animal Reproductive Biology Program at the University of Missouri-Columbia invites applications for postdoctoral positions beginning immediately in the following programs: **Dr. Dennis Lubahn**—Molecular characterization of estrogen receptor-minus mice to discover novel functions of estrogens; **Dr. Matthew Lucy**—Molecular biology of growth hormone and IGF action in the bovine ovary; **Dr. William Trout**—Role of endometrial oxytocin secretion in mechanisms of maternal recognition and embryonic survival in swine; **Dr. Wade Welshons**—Mechanism of estrogen action, estrogen receptor turnover. Applicants should specify research interest, and send curriculum vitae and names of three references to: **Mrs. Betty Nichols, Program Secretary, Food for the 21st Century, 159 Animal Science Research Center, University of Missouri, Columbia, MO 65211.** *The University of Missouri is an Equal Opportunity/Affirmative Action Employer and specifically invites and encourages applications from qualified women and minorities.*

POSTDOCTORAL POSITION available immediately to investigate the regulation of gene expression during epidermal tumor development. Approaches include transfection with reporter gene constructs, assays for protein-DNA interactions such as EMSA and footprint analysis, and characterization of trans-acting factors playing a key role in the regulation of growth-related genes in normal and tumor epidermal cells. A recent Ph.D. with training in basic molecular biological techniques and mammalian cell culture is preferred. Please submit a curriculum vitae and three letters of reference to: **Dr. Susan K. Gilmore, Ph.D., The Lankenau Medical Research Center, 100 Lancaster Avenue, Wynnewood, PA 19096.** FAX: 610-645-8299. *Equal Opportunity Employer.*

POSTDOCTORAL POSITION: Theoretical Structural Biology. Development of theoretical methodology for elucidating the structure of peptides from NMR data. Project involves development of continuum solvation models, methods for calculating the free energy and conformational search techniques. Ingredients of this study include calculation of theoretical NOE data, Monte Carlo and molecular dynamics simulations. Experience with the above is desirable, and familiarity with AMBER or GRO-MOS is preferred. Send vita and three letters of recommendation by November 1, 1995. **Dr. Hagai Meirovitch, Supercomputer Computations Research Institute, Florida State University, Tallahassee, FL 32306-4052.** *Florida State University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL ASSOCIATE: Position available to conduct experiments on the effects of ultrasound vibrations on a variety of biological systems. Requires Ph.D. in the biological sciences and experience in tissue culture and other cell biology techniques. Knowledge of biophysics and demonstrated record of conducting independent research projects also required. Salary range: \$20,000 to \$28,000. Send curriculum vitae and names of three references to: **Dr. David R. Soll, Department of Biological Sciences, 138 Biology Building, University of Iowa, Iowa City, IA 52242-1324.** *The University of Iowa is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

COMPUTATIONAL BIOLOGY BIOLOGICAL SEQUENCE COMPARISON

POSTDOCTORAL POSITION available immediately to develop more powerful methods for protein and DNA sequence comparison. Approaches include evaluation of sequence comparison methods, multiple alignment algorithms, parallel computation, evolutionary tree construction, and sequence/structure comparisons. Candidates with backgrounds in molecular evolution, biological sequence comparison, computational biology, and other areas of molecular biology are encouraged to apply. Send a curriculum vitae and have letters from two references sent to: **William R. Pearson, Department of Biochemistry, Box 440 Jordan Hall, University of Virginia, Charlottesville, VA 22908.** FAX: 804-924-5069; Email: wrp@virginia.edu. *The University of Virginia is an Equal Opportunity/Affirmative Action Employer.*

POSITIONS OPEN

POSTDOCTORAL CANDIDATES CELL/MOLECULAR BIOLOGY

The Life Sciences division at the Los Alamos National Laboratory is seeking **POSTDOCTORAL CANDIDATES** to investigate mechanisms that regulate cell cycle progression and its attendant chromatin structural changes in normal and damaged/transformed mammalian cells. Experience with cyclin dependent kinases, other cell cycle regulatory proteins, immunofluorescence, or molecular biology desired. For additional technical information, contact: **Dr. Joseph A. D'Anna** at Telephone: 505-667-1636.

A Ph.D. completed within the last three years or soon to be completed required. Annual starting salaries range from \$41,250 to \$44,570, plus a generous and comprehensive benefits package. For consideration: submit two copies of a curriculum vitae, and a publications list to: **Postdoctoral Program, PD95050, MS P290, Los Alamos National Laboratory, Los Alamos, NM 87545.**

Individuals with disabilities needing reasonable accommodation should call 505-667-8622. A Teletype Device for the Deaf (TDD) is available by calling 505-665-5357. Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy. *Affirmative Action/Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to participate in ongoing research centered on a molecular and cellular analysis of the mdm2 oncogene, including role of overexpression in pathways of cellular transformation, response to DNA damage and protein-protein interactions. Excellent research facilities and environment. A strong background in molecular and/or cellular biology or biochemistry preferred. Send curriculum vitae with the names and telephone numbers of three references to: **Dr. Donna George, Department of Genetics, University of Pennsylvania School of Medicine, Clinical Research Building, 415 Curie Boulevard, Philadelphia, PA 19104-6145.** *The University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available to carry out the sequencing, analysis, and expression of genes associated with polyketide antibiotic biosynthesis in *Streptomyces*. Previous experience with molecular biology required; previous experience with *Streptomyces* highly desirable. Send curriculum vitae and the names and telephone numbers of three references to: **Professor Ronald Parry, Department of Chemistry, Rice University, P.O. Box 1892, Houston, TX 77251.**

RESEARCH GENETICIST (PLANTS)

USDA, Agricultural Research Service (ARS), National Forage Seed Production Research Center, Corvallis, Oregon. Conduct research on the genetics, cytogenetics, cytology, and agronomy of hops to develop new hop germplasm. Produce new hop cultivars with improved quality and increased disease and pest resistance. Salary range is \$35,578 to \$42,641 per annum. This is a full-time, permanent position. For a copy of the announcement, please telephone: 503-750-8700. Closing date is October 30, 1995. *Open to all U.S. citizens. ARS is an Equal Opportunity Employer.*

PLANT MOLECULAR BIOLOGISTS DNA Plant Technology Corporation

DNAP, a leading agricultural biotechnology company producing premium fruits and vegetables for the consumer, has Ph.D. Molecular Biologist positions available in our New Crops Group. Current focus of the R&D program is on extension of fruit shelf life and improvement in fruit flavor and other quality traits.

Experience with a range of tools for the analysis of gene expression in plants, as well as with the construction of transgenes for overexpression of plant proteins, is necessary. Three or more years of professional experience, which may include postdoctoral work, is necessary.

DNAP offers an excellent compensation and benefits package that includes stock incentives. Candidates should send curriculum vitae with three references to: **Neal Gutterson, DNA Plant Technology Corp., 6701 San Pablo Avenue, Oakland, CA 94608.** *Equal Opportunity Employer.*

FAIRFIELD UNIVERSITY



BIOLOGY

Two Assistant Professors. Tenure track positions starting September 1996. Candidates with Ph.D. and a strong commitment to undergraduate teaching and research are encouraged to apply. Start-up monies are available.

Microbiologist/Molecular Biologist

Teaching responsibilities include lecture/laboratory courses in microbiology for biology and nursing majors and an upper division molecular laboratory course. Participation in the introductory biology course and in grant-writing initiatives is expected.

Molecular Developmental Biologist

Teaching responsibilities include lecture/laboratory courses in genetics and developmental biology for biology majors and the development of an upper division elective course. Participation in the introductory biology course and in grant-writing initiatives is expected.

Fairfield University, the Jesuit University of Southern New England, is located in Fairfield, Connecticut and enjoys a beautiful 200-acre campus in the suburban town of Fairfield within easy access to New York, New Haven and Boston.

Send a letter of application, curriculum vitae, a statement of teaching and research goals (both personal and undergraduate-oriented), selected reprints, and three letters of references to: Search Committee Chair, Biology Department, Fairfield University, Fairfield, CT 06430.

Deadline is November 1, 1995.

FAIRFIELD
UNIVERSITY

Women and minorities are encouraged to apply
Fairfield University is an Affirmative Action /Equal Opportunity Employer

MOLECULAR ONCOLOGIST BIOCHEMIST/CELL BIOLOGIST THE UNIVERSITY OF CHICAGO

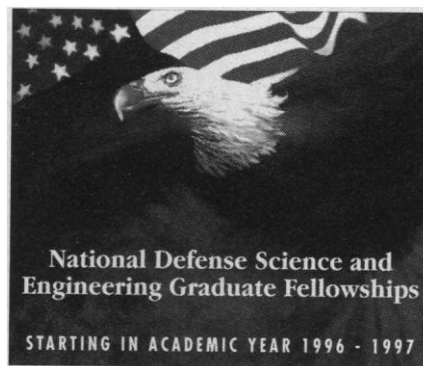
The Center for Molecular Oncology of the University of Chicago is seeking applicants at the Assistant and/or Associate Professor level to join the newly formed Center. The Center is committed to developing a strong program in molecular oncology, broadly defined, and is closely interfaced with an NCI-designated Cancer Center that includes programs on cytogenetics and molecular genetics, cell growth and differentiation, immunology and developmental therapeutics. We are seeking outstanding individuals who are using the approaches of molecular biology, molecular genetics, biophysics, and cell physiology to examine basic mechanisms and/or disorders such as signal transduction, gene and cell cycle regulation, and DNA replication and repair.

Candidates should have sufficient research experience to demonstrate both significant accomplishment and outstanding promise. Faculty appointments will be tenure-track in the most appropriate academic department where the candidate will be expected to exercise full membership. New state-of-the-art laboratory space is available in the Institute for Molecular Medicine. This Institute also houses programs in molecular immunology, vascular biology, human genetics, and neurobiology.

Letters of application including curriculum vitae, bibliography, a brief statement indicating research interest, and the names of 3 references, should be sent to: Dr. Michael Weiss, Director, Center for Molecular Oncology, 924 E. 57th Street, Chicago, IL 60637-5419. The University of Chicago is an Affirmative Action/Equal Opportunity Employer.



**THE UNIVERSITY
OF CHICAGO**



As a means of increasing the number of U.S. citizens trained in disciplines of science and engineering of military importance, the Department of Defense plans to award approximately 90 new three-year graduate fellowships in April 1996. National Defense Science and Engineering Graduate Fellowships will be awarded for study and research leading to doctoral degrees in, or closely related to, the following disciplines:

AERONAUTICAL AND ASTRONAUTICAL ENGINEERING
BIOSCIENCES (*Includes Toxicology*)
CHEMICAL ENGINEERING
CHEMISTRY
COGNITIVE, NEURAL, AND BEHAVIORAL SCIENCE
COMPUTER SCIENCE
ELECTRICAL ENGINEERING
GEOSCIENCES (*Includes terrain, water, and air*)
MANUFACTURING SCIENCES AND ENGINEERING (*Includes Industrial Engineering*)
MATERIALS SCIENCE AND ENGINEERING
MATHEMATICS
MECHANICAL ENGINEERING
NAVAL ARCHITECTURE AND OCEAN ENGINEERING
OCEANOGRAPHY
PHYSICS (*Includes Optics*)

National Defense Science and Engineering Graduate Fellows selected in 1996 will receive a stipend in addition to full tuition and required fees. The amount of the stipend is \$16,500 for 1996-1997; \$17,500 for 1997-1998; \$18,500 for 1998-1999.

Recipients of 1996-1997 National Defense Science and Engineering Graduate Fellowships do not incur any military or other service obligation.

Specific information regarding the fellowship and an application package are available from Battelle Memorial Institute, a not-for-profit research institution, which is administering the program for the Department of Defense.

Additional information and an application are available from:

NDSEG Fellowship Program
200 Park Drive, Suite 211
P.O. Box 13444
Research Triangle Park, NC 27709-3444
ATTN: Dr. George Outterson
Phone: (919) 549-8505
Fax: (919) 549-8205
NDSEG@ARO-EMH1.ARMY.MIL
<http://www.battelle.org/ndseg/ndseg.html>

Completed applications must be received by
Battelle by **January 17, 1996.**



POSITIONS OPEN

CORNELL MEDICAL COLLEGE DEPARTMENT OF NEUROLOGY

POSTDOCTORAL ASSOCIATES. Two two-year positions are available for studying neuronal and glial precursor cells of the adult vertebrate brain, specifically: 1) trophic agents permitting adult neurogenesis, 2) surface molecules regulating migration in adulthood, and their attendant neuronal calcium responses, and 3) lineage analysis of the phenotypic potential of adult precursors. Studies are done *in vitro*, using songbird (*J. Neurosci.*, 12:2532, 1992; *Neuron*, 13:567, 1994; *J. Neurobiol.*, 27: 470 and 28:82, 1995), rat (*Proc. Natl. Acad. Sci.*, 92:210, 1995), and human brain (*Cereb. Cortex*, 4:576, 1994). Approaches include neuronal cell culture, protein and immunocytochemistry, *in situ* and RT-PCR, retroviral infection and vector construction, confocal microscopy and calcium imaging. Doctorate in neuronal cell biology required. Positions are funded by an NIH NRSA, and thus limited to U.S. citizens and permanent residents. Salaries supplemented depending upon experience. Send curriculum vitae and references to: **Steve Goldman, M.D., Ph.D., Department of Neurology/E-607, Cornell U. Medical Center, 1300 York Avenue, New York, NY 10021.** FAX: 212-746-8972. Email: sgoldm@mail.med.cornell.edu. *Equal Opportunity Employer.*

POSTDOCTORAL RESEARCH ASSOCIATE. Organic Chemist Position. Synthesis of fluorescent dyes as reagents for specific staining and microanalysis of biological specimens. Experience in computational molecular modeling would be desirable. The successful candidate will have an opportunity to develop new fluorescent probes in collaboration with biologists and biophysicists as part of a state-of-the-art facility for quantitative high resolution microscopy. Salary commensurate with experience. Applicants should forward curriculum vitae with experience and references to: **Dr. Leslie Loew, The Center for Biomedical Imaging Technology, University of Connecticut Health Center, Farmington, CT 06030-1507.** An Affirmative Action/Equal Opportunity Employer. *Minority/Female/Persons with Disabilities/Veteran.*

POSTDOCTORAL POSITION Molecular Cytogenetic Studies of Prostate Cancer

An immediate position is available to characterize specific molecular genetic and molecular cytogenetic alterations important for the initiation and progression of prostate carcinoma. The position is funded for one year with potential for extension into a second year. Potential studies include chromosomal deletion mapping by *in situ* hybridization and loss of heterozygosity analysis, DNA mutation screening and sequencing, and somatic cell genetic experiments. A strong background in molecular genetics and/or molecular cytogenetics is desirable. Applicants should mail or FAX their curriculum vitae and the names and FAX numbers of three qualified references to: **Dr. Robert B. Jenkins, Division of Laboratory Genetics, Mayo Clinic, 200 First Street SW, Rochester, MN 55905.** FAX: 507-284-0043. Applications will be accepted until October 30, 1995.

POSTDOCTORAL OR RESEARCH ASSOCIATE POSITION SIGNAL TRANSDUCTION-EXOCYTOSIS

Position available immediately for research on the control of insulin secretion. Experience in molecular biology and/or electrophysiology required for a combined molecular-amperometric approach to the study of exocytosis. Please send curriculum vitae, description of research interests, and the names of three references to: **Dr. Geoffrey W. G. Sharp, Department of Pharmacology, College of Veterinary Medicine, Cornell University, Ithaca, NY 14853-6401.** Email: gws2@cornell.edu; FAX: 607-253-3659. *Cornell University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL POSITION available immediately to study ion channels in human and rat megakaryocytes. Previous experience with patch clamp electrophysiological techniques is highly desirable. Send curriculum vitae, a statement of research experience and the names, addresses and telephone numbers of three references to: **Dr. Alan Fein, Department of Physiology, University of Connecticut Health Center, Farmington, CT 06030-3505.** FAX: 203-679-1269; Email: afein@neuron.uconn.edu. An Affirmative Action/Equal Opportunity Employer. *Minority/Female/Persons with Disabilities/Veteran.*

POSITIONS OPEN

PLANT BIOLOGY-PENN STATE

POSTDOCTORAL FELLOWSHIPS to develop cross-disciplinary research on biochemical, molecular, or physiological mechanisms of Plant Responses to the Environment, and/or in their ecological, population, or evolutionary consequences. Postdocs will be expected to develop collaborative projects involving two or more of 24 participating faculty and more than one level of organization (i.e., biochemical/molecular, physiological, ecological). *Must be U.S. citizens or permanent residents*, have a Ph.D. and no more than five years of postdoctoral experience. Send curriculum vitae, three letters of reference, and a letter describing research interests to: **Jack C. Schultz, Pesticide Research Lab (Email: UJQ@PSUVM.PSU.EDU; Telephone: 814-863-4438) or Eva J. Pell, 321 Buckhout Laboratory, Penn State University, University Park, PA 16802.** (Email: EJP@PSU.EDU; Telephone: 814-865-0323).

An Affirmative Action/Equal Opportunity Employer. *Women and Minorities Encouraged to Apply.*

POSTDOCTORAL POSITION available to study the molecular mechanism of bacterial ion channel function with electrophysiological techniques. NIH-funded projects include the use of patch clamp and molecular biology to investigate the modulation and structure/function relationships of *E. coli* porins. Experience in electrophysiology, preferentially patch clamp, and a Ph.D. in related area are required. Send curriculum vitae and three letters of recommendation to: **Dr. Anne Delcour, Departments of Biology and Biochemical and Biophysical Sciences, University of Houston, Houston, TX 77204-5513.** FAX: 713-743-2636; Email: adelcour@uh.edu. *The University of Houston is an Equal Opportunity/Affirmative Action Employer. Minorities, women, veterans, and persons with disabilities are encouraged to apply.*

SMITHSONIAN INSTITUTION FELLOWSHIP PROGRAM

GRADUATE STUDENT, PREDOCTORAL, POSTDOCTORAL, AND SENIOR FELLOWSHIPS in animal behavior, ecology, and environmental science, including an emphasis on the tropics; earth sciences and paleobiology; evolutionary and systematic biology; history of science and technology. Tenable in residence at the Smithsonian facilities. Stipends and tenure vary. Deadline: January 15 annually. Contact: **Office of Fellowships and Grants, 955 L'Enfant Plaza, Suite 7000, Desk S, Washington, DC 20560.** Telephone: 202-287-3271. *An Equal Opportunity Employer.*

POSTDOCTORAL POSITIONS Johns Hopkins Oncology Center

POSTDOCTORAL POSITIONS are available to isolate novel genes involved in the proliferation and/or differentiation of hematopoietic stem cells (see *PNAS* 91: 459-463, 1994). A strong background in molecular and cellular biology is desired. Starting salary of \$28,000. Please send or fax curriculum vitae and three references to: **Donald Small, M.D., Ph.D., Oncology Center 3-109, Johns Hopkins University School of Medicine, 600 North Wolfe Street, Baltimore, MD 21287.** FAX: 410-955-8897. *Johns Hopkins University is an Equal Opportunity/Affirmative Action Employer.*

POSTDOCTORAL FELLOW Hematopoiesis/Retroviral-Mediated Gene Transfer

POSTDOCTORAL POSITION available to study hematopoietic stem cell kinetics in a feline system. M.D., Ph.D., or D.V.M. graduate with strong background and interest in molecular and/or cellular hematology required. Send a curriculum vitae, description of research interests, and names and telephone numbers of three references to: **Dr. Janis Abkowitz, Division of Hematology, Box 357710, University of Washington, Seattle, WA 98195-7710.** FAX: 206-543-3560; Email: janabk@u.washington.edu.

DIABETES RESEARCH

POSTDOCTORAL RESEARCH POSITION available to study pancreatic islet biochemistry. Enzyme, metabolism and cell biology experience is preferred in order to study effects of metabolizable insulin secretagogues in the beta cell. Send curriculum vitae to: **Dr. Michael J. MacDonald, University of Wisconsin Medical School, 1300 University Avenue, Madison, WI 53706.** FAX: 608-262-9300.

POSITIONS OPEN

POSTDOCTORAL SCIENTIST

A **POSTDOCTORAL POSITION** is available to study neuroendocrine control systems governing reproductive function. Studies involve use of molecular biology and tract-tracing techniques to investigate neural systems controlling the central regulatory neuroendocrine neurons. Candidates must have a Ph.D., M.D., or D.V.M. with a strong background in neurobiology. Familiarity using molecular biology techniques is desirable. Send curriculum vitae and the names of three references to: **Dr. M. Susan Smith, Director, Oregon Regional Primate Research Center, Oregon Health Sciences University, 505 NW 185th Avenue, Beaverton, OR 97006.** FAX: 503-690-5300; Email: smithsu@ohsu.edu. *The Oregon Regional Primate Research Center is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION available immediately to generate mice with tissue-specific and inducible knockouts of 5-HT receptors. Applicants should have a strong background in molecular biology; experience with transgenic mice and embryonic stem cells is desirable. Please submit a curriculum vitae, a statement of research interest, and the names of three references to: **Dr. René Hen, Center for Neurobiology and Behavior, Columbia University, P.I. Annex, Room 729, 722 West 168th Street, New York, NY 10032.** *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

Two **POSTDOCTORAL POSITIONS** are immediately available to study intercellular Ca^{2+} signaling between different cell types (epithelial/endothelial-smooth muscle interactions and excitable/non-excitable cell communication: *Mol. Cell. Endocrinol.*, 98:173, 1994). Major techniques to be used include fluorescent digital microscopy and imaging, photochemistry, and electrophysiology. A statement of interests must be included with a curriculum vitae for consideration. Contact: **Dr. Michael J. Sanderson, Physiology, UMMC, 55 Lake Avenue North, Worcester, MA 01655.** Telephone: 508-856-6024; FAX: 508-856-5997. *University of Massachusetts Medical Center is an Equal Opportunity/Affirmative Action Employer.*

CELL BIOLOGY/IMMUNOLOGY

POSTDOCTORAL POSITION. A position is available for studies involving *Toxoplasma gondii* host cell interactions. Multidisciplinary group with interests in attachment, invasion, motility, and immune response of the host to this intracellular parasite. Reply with curriculum vitae and summary of research interests to: **Dr. L. H. Kasper, Dartmouth Medical School, Department of Microbiology, Hanover, NH 03755-3842.** *Dartmouth is an Equal Opportunity/Affirmative Action Employer. Women are encouraged to apply.*

POSTDOCTORAL RESEARCHERS

Requires Ph.D. in biomedical science plus experience in one of the following: OB/GYN—molecular biology and tissue culture; Neurology—molecular and positional cloning; or Cardiology—biomaterials surface modification and surface characterization.

Please send curriculum vitae plus names and addresses of two references to: **Job No. 4940013. FAX: 310-652-0415** or mail to Cedars-Sinai Medical Center, SSB 610, 8723 Alden Drive, Los Angeles, CA 90048.

POSTDOCTORAL POSITION: Plasticity of the rat auditory cortex. Position available immediately to examine behavioral modification of the functional organization of the auditory cortex using intrinsic signal optical imaging and single-unit techniques. Send curriculum vitae with names of three references to: **R. Frostig, Department of Psychobiology, University of California, Irvine, Irvine, CA 92717-4550.** Email: rfrostig@uci.edu; FAX: 714-824-2447. *UCI is an Equal Opportunity Employer committed to excellence through diversity.*

POSTDOCTORAL POSITIONS are available to study the cellular immunology and pathogenesis of picornaviruses, endogenous retroviruses, Epstein-Barr virus or respiratory syncytial virus. Candidates with a strong background in immunology, virology, or molecular biology are sought. Submit curriculum vitae and the names of three references to: **Dr. Marie Chow or Dr. Martin Cannon, Department of Microbiology and Immunology, University of Arkansas for Medical Sciences, Mail Slot 511, 4301 West Markham, Little Rock, AR 72205.**

TECHNICAL ASSISTANCE COORDINATORS

The American Association for the Advancement of Science (AAAS) is seeking candidates for the positions of technical assistance coordinators who will be responsible for planning and for providing technical assistance to state, urban, and rural projects engaged in the systemic reform of mathematics and science education K-12. AAAS plans to select eight technical assistance coordinators who will each be responsible for working with eight to ten projects in a multi-state regional area.

Major responsibilities will include developing individualized technical assistance plans for each of the projects and arranging for services planned. This will involve working with a range of contacts in the field of education as well as local, state, and federal government agencies. The coordinators will work closely with the Regional Educational Laboratories, the National Network of Eisenhower Mathematics and Science Education Regional Consortia and Eisenhower National Clearinghouse for Mathematics and Science Education in planning, securing, and delivering assistance. Planning for and participating in national, regional, and local meetings, workshops, and symposia which will advance the goals of systemic reform are also individual and collective responsibilities of the coordinators. **These full-time positions are contingent upon AAAS receiving a contract for technical assistance services which is scheduled to begin in October 1995. To best meet the needs of the systemic initiative projects the positions will be located in regional areas throughout the country.**

Qualifications: Positions require extensive university or college level training leading to Master's or doctoral degree in a field related to math and science education; extensive experience in math and science education, including equity issues, content and curriculum, pedagogy, professional development, and assessment; thorough familiarity with school operations and first-hand experience in systemic reform at the national, state, and local level; experience in planning and conducting meetings and workshops; expertise in technical assistance; and excellent written and verbal skills. For consideration please send cover letter and resume to:

AAAS
Human Resources Department
1333 H St., N.W., Suite #125
Washington, DC 20005

AAAS is an Equal Opportunity Employer and has a non-smoking work environment.

PENNSTATE



University Park
Campus

HEAD, DEPARTMENT OF BIOLOGY

Penn State is seeking an individual with an outstanding research record to head its Department of Biology. The department has 29 faculty at the University Park Campus and 37 at Commonwealth Campuses with strengths in plant molecular biology, evolutionary genetics, plant and animal physiology, developmental genetics, and ecology. The biological sciences have been targeted for substantial growth at Penn State, and the Department of Biology will play a major role in the expansion. Quality research facilities and support staff are available to foster excellence in research and instruction. Credentials appropriate to the rank of tenured full professor required; teaching and administrative experience is desirable. Preliminary inquiries are encouraged. Submit curriculum vitae and names of three references to: **ANDREW CLARK, BOX B, 517 CLASSROOM BUILDING, THE PENNSYLVANIA STATE UNIVERSITY, UNIVERSITY PARK, PA 16802.** Review will begin immediately and continue until the position is filled.

An Affirmative Action/Equal Opportunity Employer.
Women and Minorities Encouraged to Apply.



The Medical College of Georgia, a unit of the University System of Georgia, announces the availability of faculty positions within its Institute for Molecular Medicine and Genetics.

The Institute offers a highly interactive environment for research and training at the interface of human biology and medicine. With the completion of a new building in the fall of 1995, the Institute will encompass 70,000 square feet and will include transgenic animal, molecular biology and imaging core facilities.

The Medical College and the state of Georgia have made a major financial commitment to establish the Institute as a center of research excellence. Successful candidates will enjoy competitive salaries and generous start-up packages.

In 1995-96, the Institute will recruit Assistant Professor candidates in Molecular Biology, with a particular interest in transcriptional regulation, DNA repair and related areas.

Exceptional candidates will also be considered for appointment at the Associate Professor or Professor levels. Applications will be reviewed as received with a final closing date of December 1, 1995.

Please send C.V., statement of research interests and three letters of reference to: William S. Dynan, Ph.D., Chief, Program in Molecular Biology, Institute for Molecular Medicine and Genetics, Medical College of Georgia, Augusta, Georgia 30912-3175. MCG is an EEO/AE.

THE RICHARD STOCKTON COLLEGE OF NEW JERSEY

The Richard Stockton College of New Jersey seeks to fill the following vacancies. All positions are for the **FALL 1996** semester.

BIOLOGY: Tenure Track, Assistant Professor (Doctorate) or Instructor (A.B.D.) Courses include Human Anatomy, Functional Anatomy, Evolutionary Biology, and core courses in Biology and General Studies. Familiarity with computer applications to anatomy teaching and research desirable.

CHEMISTRY: Tenure Track, Assistant Professor. Doctorate required, postdoctoral experience helpful. Teaching includes General and/or Organic Chemistry, Biochemistry and General Studies courses; supervise student research.

Stockton is a state-supported undergraduate liberal arts college located in the New Jersey Pine Barrens, one hour from Philadelphia. Both the faculty and the student body are ethnically diverse.

SALARY: \$30,529-\$38,799, may be higher depending on qualifications, experience and increases in the appropriately established compensation plan. Screening begins October 27, 1995. Send letter of application, resume, three letters of recommendation and evidence of completion or expected date of completion of Doctorate to Dr. Barbara Byrne, Dean, Natural Sciences and Mathematics, The Richard Stockton College of New Jersey, AA29, Pomona, NJ 08240-0195. Stockton is an AA/EOE. Women and minorities are encouraged to apply. R601231

HEALTH SCIENTIST ADMINISTRATOR

(Biomedical) GS-601-13/14

The Neuroscience and Neuropsychology of Aging Program, National Institute on Aging, National Institutes of Health, Public Health Service, is seeking an accomplished neuroscientist GS-601-13/14 (\$51,557 to \$79,200) to direct and develop its extramural program on fundamental neuroscience of aging. Applications are invited from candidates with demonstrated strong administrative and research skills in molecular neurobiology research, particularly in the areas of neural plasticity or neurotoxicology and cell death. Successful candidates should have an established track record in obtaining grant funding and managing an academic research program. A familiarity with the particular problems of the aging nervous system is desirable. U.S. citizenship is required.

Send a C.V. and the Optional Application for Federal Employment (OF-612), or the Application for Federal Employment (SF-171) to:

Christine Hartz
NIA Personnel Office
Building 31, Room 2C02
31 CENTER DR MSC 2292
BETHESDA MD 20892-2292
Telephone Number: (301) 496-5347

NIH is an Equal Opportunity Employer

POSITIONS OPEN

POSTDOCTORAL POSITION in ocular molecular genetics. A position is immediately available to investigate the regulation of gene expression during embryonic development and pathogenesis of normal and diseased eyes. We are using novel techniques of transgenesis, e.g., gene targeting, eye-specific gain/loss of gene functions, to examine the mechanism that maintains normal ocular functions. Experience using molecular cloning and molecular histologic techniques is preferred. *Applicants at the time of application should be U.S. citizens, nationals, or legal permanent residents.* Please send curriculum vitae, statement of research interests, and names of three references to: **Dr. Winston Kao, Director, Ophthalmic Research, Department of Ophthalmology, University of Cincinnati, Eden and Bethesda Avenue, P.O. Box 670527, Cincinnati, OH 45267-0527.** The University is an Affirmative Action/Equal Opportunity Employer, Minority/Female/Disabled. Smoke-free work environment.

POSTDOCTORAL POSITION available to candidates with experience in molecular biology or mouse developmental biology. Studies include the analysis of the actions of vitamin A and retinoic acid during embryonic development and in normal versus tumorigenic epithelial cells. Send curriculum vitae, names of three references, and a statement of research interests to: **Dr. Lorraine J. Gudas, Department of Pharmacology, Cornell University Medical College, 1300 York Avenue, New York, NY 10021.** An Equal Opportunity/Affirmative Action Employer/Minority/Female/Veteran.

POSTDOCTORAL FELLOWSHIP ISLET PHYSIOLOGY/BIOCHEMISTRY

NIH-funded position available immediately in laboratory investigating mechanism of β -cell dysfunction in diabetic rodent models. Experience with biochemistry, cell biology, molecular techniques desired, but will train. Send curriculum vitae and references to: **Jack L. Leahy, M.D., New England Medical Center (NEMC) Division of Endocrinology, Box 268, 750 Washington Street, Boston, MA 02111.** FAX: 617-636-4719. NEMC is an Equal Opportunity Employer. Women and minorities are encouraged to apply.

VISION BIOCHEMISTRY

A **POSTDOCTORAL RESEARCH ASSOCIATE** position is available to study mechanisms of retinoid processing in the retina and pigment epithelium. Applicants should have experience in HPLC and a background in cellular biochemistry and physiology. Send application, including a curriculum vitae and the names of three references, to: **Dr. David R. Pepperberg, Department of Ophthalmology and Visual Sciences, UIC Eye Center, University of Illinois at Chicago, College of Medicine, 1855 West Taylor Street, Chicago, IL 60612.** An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available immediately to study signal transduction through receptors for tumor necrosis factor and vascular endothelial cell growth factor. Experience in molecular biology and use of the two-hybrid system helpful. Send curriculum vitae and names and telephone numbers of three references to: **Dr. David B. Donner, Indiana University School of Medicine, Walther Oncology Center, 975 West Walnut Street, IB 501, Indianapolis, IN 46202.** FAX: 317-274-3318.

POSTDOCTORAL POSITION

An immediate opening is available to conduct basic studies on the mechanism of enveloped virus entry into animal cells. Ph.D. in biochemistry or molecular biology required. Send curriculum vitae, names of three references to: **Dr. Thomas M. Gallagher, Loyola University Medical Center, Department of Microbiology and Immunology, 2160 South First Avenue, Maywood, IL 60153.** Email: tgallag@luc.edu.

POSTDOCTORAL POSITION

POSTDOCTORAL POSITION to study molecular aspects of B-cell differentiation and generation of antibody diversity. Send curriculum vitae, a brief statement of research interests, and the names of three references to: **Katherine L. Knight, Ph.D., Department of Microbiology and Immunology, Loyola University, Stritch School of Medicine, 2160 South First Avenue, Maywood, IL 60153.**

POSITIONS OPEN

CORNELL UNIVERSITY

Two **POSTDOCTORAL POSITIONS**, one in macromolecular crystallography and one in protein biochemistry, are available immediately in the Section of Biochemistry, Molecular and Cell Biology. The x-ray crystallographer will participate in a variety of ongoing projects including the structural analysis of enzymes of purine and pyrimidine metabolism and thiamine biosynthesis. Resources include both conventional and synchrotron x-ray instrumentation (CHESS), extensive computing and graphics facilities, the Cornell Theory Center (national supercomputing center), modern biochemical equipment, and a stimulating intellectual environment. The biochemist will provide purified proteins for both ongoing and new projects with an opportunity to participate in the x-ray analysis. Located in the heart of the Finger Lake Region of New York, the Ithaca area provides a variety of year-round outdoor activities. Salary is commensurate with experience. Please submit curriculum vitae and three references to: **Dr. Steven E. Ealick, 207 Biotechnology Building, Cornell University, Ithaca, NY 14853.** Telephone: 607-255-7961 or FAX: 607-255-2428; Email: see3@cornell.edu. Cornell University is an Equal Opportunity Employer.

POSTDOCTORAL/RESEARCH ASSOCIATE POSITION

The Center for Macromolecular Crystallography (CMC) at the University of Alabama at Birmingham invites applications for a **POSTDOCTORAL FELLOW** or **RESEARCH ASSOCIATE** to participate in ongoing research to determine the structures of four bacterial surface proteins which specifically recognize and bind to different host molecules. Ultimately, this information will be used to guide efforts to design effective inhibitors of the enzyme and the postdoctoral fellow/Research Associate will have the opportunity to participate in all phases of this research. Individuals with experience in crystallographic studies of macromolecules are preferred; however, those with small molecule experience will also be considered. Salary will be commensurate with level of experience. Please submit a complete résumé and three references to: **Dr. L. J. DeLucas, Director, Center for Macromolecular Crystallography, The University of Alabama at Birmingham, 1918 University Boulevard, Birmingham, AL 35294-0005.** Telephone: 205-934-5329; FAX: 205-934-0480. The University of Alabama at Birmingham is an Equal Opportunity Employer.

RESEARCH ASSOCIATE III

Position available immediately in Oncology/Molecular Pathology to study gene expression in human liver neoplasms and cirrhosis. Three plus years of molecular biology experience such as gene cloning, isolation of mRNA from tissue, Southern and Northern blots, PCR, in situ hybridization, and tissue culture. Ph.D. or M.S. in molecular biology preferred. Send curriculum vitae and names and addresses of at least three references to: **Job No. 1950071.** FAX: 310-652-0415 or mail to:

**Cedars-Sinai Medical Center
8723 Alden Drive, SSB 610
Los Angeles, CA 90048**

Clinical Engineer for university in central Ohio. Develops specifications for imaging equipment needs of the hospital; evaluates equipment design suitability for specific applications; manages and budgets the radiology and imaging equipment repair program; negotiates equipment service contracts with vendors; performs and/or coordinates the repair and modification of radiology equipment throughout the hospital complex including MRI and CT scanners; supervises radiology equipment technicians; reviews supplies, instrumentation and facilities relative to safety and performance; trains staff and students on safety and proper use of patient instruments; assists in development of policies and procedures. B.S. in electrical or biomedical engineering and six months experience in above-described duties or modifying and repairing imaging equipment including MRI or CT scanners; at least one course in MRI principles; and six months experience in general business management, or at least three courses in general business management. Forty hours per week, 8 am to 5 pm, Monday thru Friday, \$38,328 per year. Send two résumés and cover letters (no calls) to: **J. Davies, Reference No. 1209, Ohio Bureau of Employment Services, P.O. Box 1618, Columbus, OH 43216.**

POSITIONS OPEN

SCIENTIST/RESEARCH ASSOCIATE

The American Red Cross is currently recruiting for four positions in the field of wound treatment. A **PROJECT LEADER**, a **STAFF SCIENTIST**, and a **RESEARCH ASSOCIATE** will develop a fibrin bandage and other devices for the prevention of blood loss. A second Project Leader will develop drugs and biologics to prevent infection and speed healing. The scientist positions require a Ph.D. or M.D. with a record of successful research in wound treatment and/or product development. Postdoctoral training and experience in the development of powder or foam formulations or materials testing a plus. The Research Associate will have a B.S. or M.S. in biological sciences with experience including animal research and materials testing. Competitive salaries and excellent benefits. Submit résumé to: **American Red Cross, Human Resources (B00-008), 15601 Crabbs Branch Way, Rockville, MD 20855.** An Equal Opportunity Employer, Minority/Female/Disabled/Veteran.

ASSOCIATE INVESTIGATOR (research) position available in Memphis, Tennessee. Direct scientific research project involving viral pathogenesis of human tumor virus. Duties include animal surgery, processing of human clinical materials, routine virologic/immunologic techniques, the generation of monoclonal antibodies of the IgA isotype, purification by gel filtration and characterization. Work will also include epithelial and lymphoid culture systems, cell cloning, establishment of primary tissue culture, molecular biologic techniques to include PCR in situ hybridization, immunoblotting, and general DNA/RNA hybridization methodology. Requires Ph.D. with major field of study in molecular biology, or related science field. Salary \$35,792 per year. To apply, send résumé to: **Barbara Galloway, Job Service Program and Technical Support, Tennessee Department of Employment Security, Nashville, TN 37245-1200.** Please refer to job order number TN 6200008. Affirmative Action/Equal Opportunity Employer.

INSTRUCTOR—RESEARCH

Pennington Biomedical Research Center (PBRC) seeks applicants for the position of Instructor—Research Basic Neuroscience. Applicant will be expected to work as a part of a team on an ongoing, externally funded, project examining the relationship between nutrition and behavioral response to stress. Individual will be expected to design and conduct experiments investigating the neurological basis of behavior using cellular and molecular techniques and should have a strong neuroscience background. Qualifications: Ph.D. with neurobiology or neurochemistry experience. Experience with molecular techniques such as in situ hybridization desirable. Send résumé by October 20, 1995 or until suitable person is found.

**Evelyn Bennett, Assistant Director, HRM
Reference: 015375
Pennington Biomedical Research Center
6400 Perkins Road
Baton Rouge, LA 70808**

Louisiana State University/PBRC is an Equal Opportunity/Affirmative Action Employer.

Pediatric Physician SCIENTISTS: The University of Kentucky College of Medicine is interested in recruiting pediatricians (M.D. or M.D., Ph.D.) who are committed to laboratory investigation in areas of oncology, neuroscience, endocrinology, infectious disease or pulmonary diseases as applied to pediatrics. Clinical area of interest should be related to one of the above or in neonatology or critical care. Modern laboratory space, protected time, joint clinical/basic science appointments, collaboration or mentorship by senior investigators, and substantial intramural funding is available. Junior investigators with potential for extramural funding or senior investigators with active funding are encouraged to apply. Interactions with other faculty in the clinical basic science departments as well as the Sanders-Brown Center on Aging, Markey Cancer Center, School of Biological Sciences and College of Agriculture provide a particularly stimulating clinical and research environment.

Interested individuals should send curriculum vitae and statement of past experience and future plans to: **V. Manakad, Chairman, Department of Pediatrics, University of Kentucky Medical Center, 800 Rose Street, Lexington, KY 40536-0284.**

Contribute to America's Good Health & Safety



Booz•Allen & Hamilton, a team-driven, international leader in management and technology consulting, has been awarded an important contract to work on scientific/medical applications pertaining to the safety and regulation of food and drugs.

The following **Washington, DC metro area based positions require varying levels of experience (ideally with the FDA or similar regulated industry) and a BS in a relevant technical discipline:**

DOCUMENT IMAGING/MANAGEMENT:

Requires large scale, full life-cycle experience in BPR, workflow design, and product selection/implementation.

APPLICATION DEVELOPMENT:

Requires experience with ORACLE 7 tools as well as SQL*Forms, PowerBuilder, Sybase, Visual Basic, or GUI development. Experience with Software through Pictures, data modeling, and computerized patient records helpful for some positions.

SYSTEMS ARCHITECTURE DEVELOPMENT:

Experience in the areas of design, integration, and client/server with MS Windows, UNIX, VAX, Banyan Vines, and/or TCP/IP a plus.

Applicants selected may be subject to a security investigation.

We offer a competitive salary, excellent benefits, and the opportunity to contribute your expertise to important projects. For **immediate** consideration, send/fax your resume and salary requirements, clearly indicating position of interest, to **Dept. 8200/LF. FAX: (703) 902-3501. Booz•Allen & Hamilton, 8251 Greensboro Dr., McLean, VA 22102.** Equal opportunity employer.

BOOZ•ALLEN & HAMILTON

MOLECULAR IMMUNOLOGISTS/CELL BIOLOGISTS

THE UNIVERSITY OF CHICAGO

The Gwen Knapp Center for Lupus and Immunology Research of the University of Chicago is seeking applicants at the Assistant, Associate and Full Professor levels to join the newly formed Center. The Center is committed to developing a strong program in molecular immunology. We are seeking outstanding individuals who are using the approaches of molecular biology and cell physiology to examine basic immune mechanisms and/or disorders such as signal transduction, gene regulation, and antigen processing. Existing immunology programs at the University of Chicago include: lymphocyte development, B and T cell activation, antigen presentation, tumor immunology, transplantation, and autoimmunity.

Candidates should have sufficient research experience to demonstrate both significant accomplishment and outstanding promise. Faculty appointments will be tenure-track in the most appropriate academic department where the candidate will be expected to exercise full membership. New state-of-the-art laboratory space will be located within the Institute for Molecular Medicine which is now being formed. This Institute will also house programs in molecular oncology, vascular biology, human genetics, and neurobiology.

Letters of application including curriculum vitae, bibliography, a brief statement indicating research interest, and the names of 3 references should be sent to: Dr. Craig B. Thompson, Director, Gwen Knapp Center for Lupus and Immunology Research, 924 E. 57th Street, Room R410, Chicago, IL 60637-5420. The University of Chicago is an Affirmative Action/Equal Opportunity Employer.



THE UNIVERSITY OF CHICAGO

THE UNIVERSITY OF WESTERN ONTARIO Department of Plant Sciences

The Department of Plant Sciences at The University of Western Ontario is seeking applications from highly qualified candidates for one or two Assistant Professor (tenure-track) positions beginning approximately July 1, 1996 (start date negotiable). The successful candidates will preferably have research interests in the general area of Environment and Plant Biology and would be able to complement existing research programs in plant physiology, genetics, or ecology.

The criteria we will look for include a Ph.D. and appropriate postdoctoral training in an internationally respected research laboratory, a proven research record including publications of high quality, the ability to work well with others, and evidence of interest, enthusiasm and ability in teaching. The successful candidate will be expected to develop a vigorous and innovative research program, well supported by external funding, and to contribute to the department's commitment to excellence in graduate and undergraduate training.

The Department has one of the strongest groups of young faculty in the country and has excellent research facilities including a dedicated molecular genetics unit, a nearby large multidisciplinary Environmental Science field station, extensive campus greenhouse/growth chamber space, a new electron microscope and a wide range of modern experimental equipment.

Applications including a c.v. and copies of recent significant papers should be forwarded to **Dr. A.W. Day, Chair, Department of Plant Sciences, The University of Western Ontario, 1151 Richmond Street, London, Ontario N6A 5B7. Telephone (519)661-2111 ext. 6465; Fax: (519)661-3935.** Arrangements should be made for 3 letters of reference to be sent to the same address. Applications will be accepted until November 30, 1995, or until a suitable candidate(s) is/are found.

Positions are subject to budget approval. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

INSTITUTE FOR MOLECULAR MEDICINE AND GENETICS

The Medical College of Georgia, a unit of the University of Georgia system, announces the availability of Postdoctoral Fellow and Research Assistant positions within its Institute for Molecular Medicine and Genetics. The Institute offers a highly interactive environment for research and training at the interface between human biology and medicine. With the completion of a new building in the fall of 1995, the Institute will encompass 70,000 square feet and will include transgenic animal, molecular biology and imaging core facilities.

Molecular Biology

William S. Dynan, Ph.D., Chief, Postdoctoral and Research Assistant positions to study regulation of transcription in human cells and viruses. Systems include HTLV-I Tax protein, studies of RNA polymerase II phosphorylation by DNA-dependent protein kinase, role of Ku autoantigen.

Shuo Lin, Ph.D., Postdoctoral Fellow and Research Assistant positions available to study genetic basis of hematopoietic development in zebrafish; and to develop insertional mutagenesis in zebrafish using retroviral vectors.

Roni J. Bollag, Ph.D., Postdoctoral Fellow position available to study the molecular and biochemical analysis of mouse developmental regulatory genes.

Molecular Immunology

Andrew L. Mellor, Ph.D., Postdoctoral Fellow and Research Assistant positions available to study the elucidation of the role and nature of T cell involvement in autoimmunity and transplant rejection using a number of existing transgenic mice as well-defined model systems.

Cell Signaling

John A. Hardin, M.D., Postdoctoral Fellow position available to study mechanisms of immune tolerance and autoimmunity. Certain nuclear proteins will be used as models for antigen processing and presentation in the pathogenesis of humoral and cellular autoimmunity.

James R. Goldenring, M.D., Ph.D., Postdoctoral Fellow positions available to study aspects of signal transduction in polarized epithelial cells including molecular characterization of A kinase anchoring proteins and characterization of Rab small GTP-binding proteins involved in exocytosis.

Richard Cameron, Ph.D.

Postdoctoral Fellow position available for cellular and molecular analyses of cell interactions during mammalian brain development.

Chris Wei, Ph.D.

Postdoctoral Fellow position available to study the molecular structure of voltage sensitive calcium channels.

Send C.V., names of three references, and indicate which faculty member is of interest to: **Ann Gambill, Institute for Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA 30912-3175. MCG is an EEO/AEE.**



Biology

PROJECT LEADER

Fort Dodge Laboratories, a Division of American Home Products Corporation and a leading manufacturer in veterinary biologicals and pharmaceuticals, has immediate openings in our department of Biological Research and Development.

The successful candidate should possess:

- A PhD in Microbiology or Immunology or equivalent field or DVM with 1-3 years of experience in vaccine development
- MS or BS in Microbiology or Immunology or equivalent field with 5+ years of experience in the development of veterinary biologicals and management of research projects
- Strong communication skills

The primary responsibility of the successful candidate will be to perform works leading to the licensure of veterinary biologicals. These works include, but are not limited to, designing and conducting in vitro and in vivo studies, analyzing data, and preparing protocols and reports.

In addition to an excellent career opportunity, we will provide the selected individual with competitive compensation and a complete corporate benefit program.

To apply, submit curriculum vitae, including salary requirements, to:

Personnel Director



PO Box 518, Fort Dodge, IA 50501

An Equal Opportunity
Employer M/F/D/V

Faculty Positions in Genetics

Dartmouth Medical School

Through the generous support of the Lucille P. Markey Charitable Trust, Dartmouth Medical School is recruiting faculty in genetics. Appointees are expected to maintain excellent research programs that address fundamental questions in an area of genetics that includes microbial genetics, cancer genetics, gene therapy, mouse or human genetics, or model systems such as yeast, drosophila, and zebra fish. Appointees will also participate in the teaching of genetics to graduate and medical students.

Applications are especially encouraged from established investigators at the Associate Professor level, but candidates of all ranks are encouraged to apply. Appointments will be in an appropriate basic science department at Dartmouth Medical School.

Review of applications will begin on November 1, 1995. Please send a CV, a description of research interests, and arrange for three letters of recommendation to be sent to: Professor Constance Brinckerhoff, Ph.D.; Dartmouth Medical School; Box 7200, Vail Building; Hanover, NH 03755.

An equal opportunity/affirmative action employer.

CELL/MOLECULAR BIOLOGIST

Garden State Cancer Center
Newark, New Jersey

We are currently seeking a Cell/Molecular Biologist to study tumor-host interactions involved in the progression of malignancy. Recent Ph.D. with postdoctoral experience in tissue-specific gene regulation, mammalian cell transfection, *in situ* hybridization, PCR and general methods of molecular and cell biology desired. Experience in cell culture and tumor transplantation is essential. Applicants must be authorized to work in the U.S. Send curriculum vitae, reprints and 3 letters of reference to:

Personnel Officer
Garden State Cancer Center
at the Center for Molecular
Medicine and Immunology
1 Bruce Street
Newark, NJ 07103
FAX: (201)982-7047



Garden State
Cancer Center

at the Center for Molecular Medicine and Immunology

Equal Opportunity Employer



FACULTY POSITION, U.C.L.A. PLANT MOLECULAR BIOLOGY

The newly formed Department of Molecular, Cell and Developmental Biology, would like to add to existing strength in Plant Molecular Biology by hiring two individuals with proven research and teaching accomplishment in the area of Plant Cell, Molecular or Developmental Biology. One appointment will be at a relatively junior level (starting Assistant through mid-Associate Professor level). The second appointment would be made in connection with our search for a Chair of the Department of Molecular, Cell and Developmental Biology. Successful candidates' research programs will be expected to use molecular and genetic techniques to address questions of fundamental importance for plant cell and developmental biology. The candidates will participate in teaching undergraduates in an integrated life sciences curriculum at both the lower and upper division levels. Applicants should send their c.v., a concise research statement indicating future plans as well as the current program, and a brief statement of teaching interests and experience to: Plant Molecular Biology Search Committee the Department of Molecular, Cell and Developmental Biology, Box 951606, U.C.L.A., Los Angeles, CA 90095-1606. Candidates for a junior position should have three letters of recommendation sent to the same address. Candidates for the senior position should include names of three potential references. The committee will start considering candidates by October 20, 1995. U.C.L.A. is an affirmative action/equal opportunity employer. *Women, minorities, and persons with disabilities are encouraged to apply.*

MOLECULAR PHARMACOLOGY OF ION CHANNELS

The Department of Pharmacology, University of Kentucky College of Medicine at Lexington is expanding its programs in Molecular Pharmacology. Excellent facilities and new resources are available to support this expansion. A tenure-track position is available immediately at the Assistant or Associate Professor level. We encourage applications from candidates whose research involves the use of modern molecular methods in the study of the structure and function of voltage-gated or ligand-gated ion channels. Potential relevance to neurodegenerative, cardiovascular or other related disease conditions is desirable but not essential. Candidates should have a Ph.D. or M.D., with several years of Postdoctoral experience and clear evidence of the ability to sustain or develop an independent, externally-funded research program. The successful candidate should also be interested in possible collaborative departmental projects with other faculty involved in molecular and electrophysiological research. Participation in departmental training of medical and graduate students is also an important aspect of this position. Interested candidates should send curriculum vitae and the names, addresses and phone numbers of three references to:

Search Committee A
Department of Pharmacology
University of Kentucky
College of Medicine
MS-309 Medical Center
Lexington, KY 40536-0084

THE UNIVERSITY OF KENTUCKY IS AN
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NORITIES ARE ENCOURAGED TO APPLY.

TISSUE ENGINEERING

CARTILAGE RESEARCH & DEVELOPMENT

Advanced Tissue Sciences Inc. and Smith & Nephew plc formed a joint venture in 1994 to develop, manufacture and market human tissue engineering cartilage for orthopedic applications. The initial focus of the joint venture is to use Advanced Tissue Sciences' core technology to develop a line of products for the repair or replacement of damaged articular and meniscus cartilage in the knee. We are actively recruiting for these positions:

STEM CELL SCIENTIST

We seek an individual with a Ph.D. in cell biology, biochemistry or the equivalent to research cartilage synthesis by cells from various tissues. Preferred candidates will have a minimum 5 years' research experience with an expertise in mesenchymal stem cell biology, ideally in the area of cartilage and bone research. Requires scientific excellence as evidenced by publication, as well as strong communication skills for laboratory management in an industrial biotech setting.

RESEARCH ASSOCIATES

We have two openings for candidates with BS/MS degrees in a biological science and 2-4 years' industry experience with skills in cell and tissue culture, biochemical and immunoblotting techniques. Knowledge of and experience in data analysis and assay troubleshooting is essential. Applicants must be able to carry out experiments in a consistent and conscientious manner. Familiarity with GLP is considered a plus.

Advanced Tissue Sciences offers competitive compensation and benefits package and a creative, inspired environment.

Please send your resume to: **Advanced Tissue Sciences, Attn: Recruiting Manager, 10933 N. Torrey Pines Rd., La Jolla, CA 92037.** Equal Opportunity Employer M/F/D/V.



**ADVANCED TISSUE
SCIENCES**

Smith+Nephew

FLETCHER JONES ENDOWED CHAIR PROFESSOR SAINT MARY'S COLLEGE OF CALIFORNIA

The Biology Department of Saint Mary's College invites applications for the newly established Fletcher Jones Endowed Chair in Biology at the rank of Associate or Full Professor. The Department seeks a distinguished educator and scholar in the field who will be actively involved in undergraduate Biology major instruction and research. In addition the successful applicant will be expected to play a leadership role in curriculum development of and instruction in courses for non-science majors in the context of the liberal arts traditions of the College. Teaching responsibilities include seven courses per year in a 3-1-3 academic calendar and may include upper division courses in the applicant's areas of expertise and General Biology for both majors and non-majors. The successful applicant will also be expected to pursue his or her own scholarship/research program in a manner which invites the active participation of undergraduates. Saint Mary's is a Catholic, co-educational college located 20 miles east of San Francisco. Send a letter of application which addresses the candidate's match to the qualifications listed above, curriculum vitae, and have three letters of recommendation, at least two of which discuss teaching ability sent to: **Gregory R. Smith, Fletcher Jones Endowed Chair Search Committee, Saint Mary's College, P.O. Box 4507, Moraga, CA 94575-4507.** The deadline is **January 9, 1996** or until the position is filled. Saint Mary's is an EOE and committed to being a diverse community.

ASSISTANT/ASSOCIATE PROFESSOR SAINT MARY'S COLLEGE OF CALIFORNIA

St. Mary's College, Biology Dept., seeks candidates for a tenure-track appointment as Assistant/Associate Professor beginning in Fall 1996 who demonstrate a history of excellent teaching, scholarship and service. Preference will be given to applicants who exhibit a commitment to the maintenance of high standards of Biology education and a desire to be an active and enthusiastic participant in the Department, School and College. Teaching responsibilities include seven courses per year on a 3-1-3 schedule academic calendar and specifically include lower and upper division Cell and Molecular Biology courses for majors and lower division courses in Microbiology and Human Physiology as part of the Intercollegiate Nursing Program. The successful applicant will be expected to pursue his or her own scholarship/research program especially with the involvement of students and in the context of the news of the Department. Saint Mary's is a Catholic co-educational college located 20 miles east of San Francisco. Send a letter of application which addresses the candidate's match to the qualifications listed above, a curriculum vitae and three letters of recommendation (at least two of which discuss teaching ability) to: **Gregory R. Smith, Biology Cell and Molecular Search Committee, Saint Mary's College, P.O. Box 4507, Moraga, CA 94575-4507.** The deadline is **February 5, 1996** or until the position is filled. Saint Mary's is an EOE and committed to being a diverse community.

Cell Death/Apoptosis

IDUN Pharmaceuticals is an early stage biopharmaceutical company focused on the discovery and development of drugs aimed at the therapeutic modulation of cell death with applications in neurodegenerative diseases, cancer, and inflammation. IDUN invites applications from highly motivated, inventive scientists for the following positions:

Protease Enzymologist

Ph.D. with minimum 5 years experience in the biotechnology or pharmaceutical industry. Candidates should have significant accomplishments in protease biochemistry with experience in purification, mechanistic analysis, and inhibitor design. **Code: PE**

Cellular Neurobiologist

Ph.D. with minimum 2 years experience in the biotechnology or pharmaceutical industry and reputation in neuronal cell death and/or neurotrophic factor biology. Candidate will lead three research associates in establishing a Neuronal Model Systems group. Extensive experience in primary CNS neuronal cultures, FACS analysis, and immunocytochemistry. Experience with hybridoma technology or *in situ* hybridization a plus. **Code: CN**

Cell/Molecular Biologist

Ph.D. with significant experience in apoptosis or intracellular signaling. The ideal candidate will have hands-on experience using cell microinjection in combination with either molecular biology or biochemistry. **Code: CB**

Neurobiologist

Ph.D. with at least two years of post-doctoral training and significant experience in mapping of gene expression patterns in the CNS by *in situ* hybridization and immunohistochemistry. **Code: NB**

Molecular Biologist

Ph.D. with post-doctoral training in molecular biology of human cancer, preferably in the area of programmed cell death. Candidates should have experience in molecular cloning, PCR, and the creation of transfected mammalian cell lines. **Code: MB**

Medicinal Chemists

Candidates will design, prepare and characterize organic compounds for biological evaluation and interact with a multi-disciplinary team to meet project goals. A Ph.D. in Synthetic Organic Chemistry, preferably with 1+ years of post-doctoral experience, and 0-5 years industrial experience are required. Experience in molecular modeling, combinatorial chemistry and/or solid phase synthesis would also be desirable. **Code: MC**

IDUN Pharmaceuticals' modern laboratory facility is located in La Jolla, CA, close to several outstanding academic centers. IDUN offers the excitement of a start-up company in a rapidly growing scientific field, as well as an attractive compensation package. For confidential consideration, please mail your c.v. (refer to code above) to IDUN Pharmaceuticals, 3050 Science Park Rd. Suite 200, San Diego, CA 92121.

IDUN is an Equal Opportunity Employer

IDUN Pharmaceuticals

First Annual Conference on Recruitment and Retention of Minority Scientists

"Unlocking Opportunities: Fostering Diversity in the Scientific Workforce in the Pharmaceutical and Biomedical Industries" 26 - 27 October 1995

This is a unique opportunity to be part of an exciting forum where professionals from industry, government, universities and associations will discuss and share strategies related to the recruitment, retention and professional development of minority scientists.

Sponsored By: The American Association for the Advancement of Science

Location: Washington D.C. (Crystal City Marriott, Arlington, Virginia)

Cost: • \$395 registration fee*.

• \$340 per person for 2 or more from the same company.

Price includes full conference, opening cocktail reception, continental breakfast and lunch.

(*Does not include hotel accommodations).

For information call: Janis Crowley (202) 326-6532

An activity of Science Linkages in the Community (SLIC) and supported by a grant from the DeWitt Wallace-Reader's Digest Fund.

Minority Advertising Supplement with Bonus Distribution to 27 Minority Organizations

"Diversity and the Scientific Community"

Issue date: 10 November

Space Reservation deadline: 24 October

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Every advertisement in the 10 November issue receives placement on the Science world wide web service. Also, full page ads receive a feature index listing that allows on-line users to link instantly to your ad.

For more information or to reserve your space, call Janis Crowley, (202) 326-6532.

Science Global Career Network address:
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CHANGING THE PRACTICE OF MEDICINE THROUGH MOLECULAR BIOLOGY.



Incyte Pharmaceuticals is an innovative, public biotech company applying the tools of computer science to high-throughput cDNA sequencing, bioinformatics, and gene discovery. We offer the following exciting opportunities to join us in the development and commercialization of our comprehensive genomic database.

LIBRARY PRODUCTION MANAGER
PhD Molecular Biology or relevant discipline with 4+ years of post-graduate experience to be responsible for managing a large-scale library production facility. At least 2 years' biotech experience also required. Ref: LPM

DIRECTOR, SEQUENCING OPERATIONS

Experienced manager with strong background in DNA Sequencing, PhD in Molecular Biology (or related) and 4+ years' post-graduate experience. Familiarity with Robotics and automated sequencing technologies essential. Candidate must demonstrate ability to assume the day-to-day management of a production high-throughput sequencing operation. Ref: DSO

DIRECTOR, PRODUCTION INFORMATICS

PhD Scientist with 4+ years' experience in automated DNA sequencing, software development, LIMS setup, and genomic sequencing databases to be responsible for automated analysis of sequencing operation output, automated sample tracking, and setting up a large-scale genomic database. Strong management skills essential. Ref: DPI

Incyte offers a premier R&D facility in the foothills of Palo Alto, California, along with competitive salaries, an outstanding benefits package, and significant opportunities for professional growth. Please mail/fax your resume to Incyte Pharmaceuticals, Inc., Attn: KRH/Ref. ___, 3174 Porter Dr., Palo Alto, CA 94304, FAX 415/855-0572. EOE.



I N C Y T E
P H A R M A C E U T I C A L S , I N C .

Postdoctoral Research at The Wistar Institute

The Wistar Institute, an independent research organization located on the campus of the University of Pennsylvania, currently seeks postdoctoral applicants.

Postdoctoral Researcher 1 — Study the role of transcriptional adaptor proteins in gene regulation in humans and yeast. Current research focuses on the biology and biochemistry of the adaptors, ADA2 and GCN5, in human cells. *J. Biol. Chem.* 270: 19337 (1995). **Reply to Dr. Shelley L. Berger.**

Postdoctoral Researcher 2 — Conduct molecular virology studies of herpes simplex virus latency utilizing a mouse model system. We are also studying the use of HSV in gene therapy and cancer therapy. **Reply to Dr. Nigel Fraser.**

Postdoctoral Researcher 3 — Study the structure of wild-type p53 and specific mutants. Prior experience in protein engineering, NMR spectroscopy or crystallography is required. This project is in collaboration with structural biology groups. **Reply to Dr. Thanos Halazonetis.**

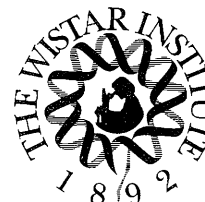
Postdoctoral Researcher 4 — Conduct molecular virology studies on human immunodeficiency virus-1 (HIV-1), stressing mechanisms of AIDS immunopathogenesis and the pre-clinical development of immunotherapy (viz., IL-12, IL-13). **Reply to Dr. Luis Montaner.**

Postdoctoral Researcher 5 — RNA editing of the gene transcripts for the GluR1 ion channel (a vital ion channel of mammalian brain) is being studied by molecular genetic analysis. *Seminars in Cell Biol.* 4:285 (1993); *Proc. Natl. Acad. Sci. USA* 91: 11457 (1994); *J. Biol. Chem.* 270: 17098 (1995). **Reply to Dr. Kazuko Nishikura.**

Postdoctoral Researcher 6 — Sequence organization and gene expression near human and mouse telomeres. **Reply to Dr. Harold Riethman.**

Postdoctoral Researcher 7 — Study the molecular mechanism of T cell development in mice. The position requires experience in molecular and/or cellular biology. **Reply to Dr. Lisa M. Spain.**

Interested applicants are requested to send a C.V. and three references to the appropriate faculty member's attention: **The Wistar Institute, 3601 Spruce Street, Philadelphia, PA 19104.** Equal Opportunity Employer. Minor candidates are strongly encouraged to apply.



CALIFORNIA CAREER OPPORTUNITIES

Digital Gene Technologies, Inc.

Digital Gene Technologies, Inc., a new biotechnology company in the dynamic field of genomics, specializes in the automation of assays to determine gene expression patterns and establishing gene expression databases. We are recruiting highly motivated and dedicated individuals who promote the necessary skills to help advance DGT into the forefront of genomics discoveries. We are located in the La Jolla, California area.

Robotics Workstation Engineer

This senior position requires experience in the setup of robotic work stations, and programming and integrating computer systems to instrumentation. This position requires working knowledge and experience with existing robotic hardware, and management experience.

Bioinformatics and Database Manager

An individual with programming, bioinformatics, and database completion experience is sought to establish and implement both software and hardware needs for a sophisticated genomics database. Previous experience with relational databases is preferred.

Gene Discovery Group Leader

A strong background in establishing cDNA libraries, and optimization of PCR conditions is required. You will lead a small group of scientists dedicated to constructing cDNA libraries derived from a variety of tissue sources, and automating technologies by integrating with the robotics developments group. A Ph.D. in molecular biology is required along with some supervisory experience.

For consideration, please note position of interest and send CV along with salary history and expectations to:

Science, Box 61
1333 H Street, N.W., Room 814
Washington, DC 20005

Letters of reference are recommended.

Equal Opportunity/Affirmative Action Employer.

Howard Hughes Medical Institute

RESEARCH SPECIALIST OPTICS/MICROSCOPY

The Howard Hughes Medical Institute, has an opening for a Research Specialist at our UC San Francisco facility. The lab's mission is to understand the function of biological molecular motors.

Responsibilities involve the design, construction and maintenance of nanometer-resolution optical trapping microscope, a single molecule total internal reflection fluorescence microscope, and an optical near field microscope. Practical experience in designing and building complex optical bench systems and data acquisition electronics is necessary. Computer skills include experience with data acquisition/instrument control programming and software (LabView) and image processing software. Additional duties will include working with others in conducting experiments on molecular motors using custom microscopes so familiarity with and interest in the biological goals of the project are desirable. Qualifications include MS or Ph.D. degree.

HHMI offers excellent salaries and benefits. Please send resume and three references to **Dr. Ron Vale, HHMI/UCSF Box 0450, 513 Parnassus Avenue, San Francisco, CA 94143-0450.** EOE.



**Meharry Medical College
Dean, School of Medicine**

Applications and nominations are invited for the position of Dean of the School of Medicine at Meharry Medical College. The Medical School is one of four schools of the College; other schools are Dentistry, Graduate Studies and Research and Allied Health Professions. Founded in 1876, the college and the medical school are renowned for its training of health care professionals with a sensitivity and orientation to service the underserved.

As a minimum, candidates for the position must:

1. Hold the M.D. or M.D./Ph.D. degree;
2. Qualify for a tenured appointment at the level of professor;
3. Be a recognized scholar and leader in medical education and research;
4. Have the training and experience necessary for the administration of the educational, clinical research and community health programs of the School of Medicine; and
5. Be able to work effectively with internal and external constituents to promote the School and the College.

The candidate must have excellent communicative skills and team leadership ability relate to constituents internal and external to the college. Demonstrable leadership qualities for stimulating and motivating students and faculty are also expected of the successful candidate. In addition, the Dean must provide leadership in external partnerships, including managed care contracting and the development of external partners in a healthcare network. He/she must be responsible for ensuring that goals and objectives related to clinical service (market shares, patients visits, range of services, quality, cost effectiveness and customer responsiveness) are achieved.

Applications and nominations accompanied by an updated curriculum vitae and three references should be submitted to:

Calvin L. Calhoun, Sr., M.D.
Chairman, Search Committee
School of Medicine-Box A-21
Meharry Medical College
1005 D. B. Todd Boulevard
Nashville, TN 37208

Meharry is an Equal Opportunity/Affirmative Action Employer

**WAKE FOREST
UNIVERSITY**

**NEUROIMMUNOLOGIST
ASSISTANT PROFESSOR**

The Department of Microbiology and Immunology and the Center for Investigative Neuroscience at the Bowman Gray School of Medicine, Wake Forest University are seeking to fill a tenure-track position at the **ASSISTANT PROFESSOR** level. We are particularly interested in individuals wishing to establish an independent laboratory with research interests in immune-based induction of CNS pathology, the immune response against neurotrophic viral or bacterial pathogens, hormonal communication between the CNS and immune systems, or CNS inflammation and autoimmunity. The Department has substantial research strengths in the molecular basis of viral and bacterial pathogenesis, molecular cell biology, and cytokines and is the recipient of an NIH-funded predoctoral training program in Immunology and Pathogenesis. The Neurosciences Center is a multi-departmental, multidisciplinary program with more than 100 neuroscientists and an associated graduate program. The current areas of research interest in the Center are: developmental neurobiology, substance abuse, cardiovascular neuroscience/stroke, and special senses. The successful candidate will participate in the teaching of immunology to predoctoral and medical students and will be provided with suitable laboratory and office space as well as start-up funds. Applicants should submit a curriculum vitae, a description of future research plans and the names of three references to: **Dr. Steven B. Mizel, Professor and Chair, Department of Microbiology and Immunology, Bowman Gray School of Medicine, Medical Center Blvd., Winston-Salem, NC 27157.**

Wake Forest University is an Affirmative Action/Equal Opportunity Employer.

CAREERS '95

Issue Date: 6 October 1995

Space Reservation Deadline: 19 September 1995

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- Biotechnology/Pharmaceutical Job Fair, 27-28 October in San Francisco, CA.
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For more information contact: Janis Crowley
Phone: (202) 326-6532 Fax: (202) 682-0816

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NEW ENGLAND CAREER OPPORTUNITIES

PLANT ECOLOGY/TAXONOMY POSITION: The University of Arkansas at Little Rock, Department of Biology, invites applications for a tenure-track **ASSISTANT PROFESSOR** to begin fall 1996. Applicants must have a Ph.D. in botany, ecology, or related area. We are especially interested in candidates having expertise in vegetation ecology or plant systematics. The successful candidate is expected to teach undergraduate courses (plant ecology, plant taxonomy, botany, and biology) and to develop a research program involving undergraduate students.

The University of Arkansas at Little Rock ([www:ualr.edu](http://www.uarl.edu)) is a metropolitan institution with a current enrollment of approximately 12,000 students. The Department of Biology consists of 19 full-time faculty members and over 300 majors in its various degree programs. The Department is in the College of Science and Engineering Technology and offers B.S. degrees in Biology with two concentrations (General Biology and Fisheries and Wildlife Management), Environmental Health Science (four options) and Health Education (two options).

Letters of application should include a curriculum vitae, statements of teaching philosophy and scholarly interests, undergraduate and graduate transcripts, and at least four letters of reference. Review of applications will begin 1 December 1995 and will continue until the position is filled. Applications should be addressed to Dr. William H. Baltosser, Chair of the Faculty Search Committee, Department of Biology, University of Arkansas at Little Rock, 2801 S. University, Little Rock, AR 72204-1099.

The University of Arkansas at Little Rock is an equal opportunity affirmative action employer and actively seeks the candidacy of minorities, women, Vietnam-era veterans and persons with disabilities, under Arkansas law, all applications are subject disclosure.

NEUROSCIENTIST AND BIOCHEMIST POSITIONS AVAILABLE

Ergo Science Incorporated, a private, established biotechnology/biopharmaceutical company, located in the Boston, Massachusetts area, is recruiting neuroscientists and metabolic biochemists to add to its diverse research staff. Neuroscientists and biochemists will interact with a multidisciplinary group of organic chemists, cell biologists, endocrinologists, immunologists, physiologists and chronobiologists to study two research areas: 1) circadian neuroendocrine regulation of metabolism relating to diabetes and atherosclerosis; and 2) circadian neuroendocrine regulation of immune function as it relates to tumor immunology and autoimmune disease.

Neuroscientist applicants must have a Ph.D. and proven research track record in circadian hypothalamic neurophysiology. Candidates must also have expertise in molecular biology, electrophysiology recording, microdialysis, receptor assay and/or 2nd messenger analysis techniques to investigate circadian organization of hypothalamic activities regulating metabolism or immunology.

Metabolic Biochemist applicants must have a Ph.D. and proven research track record and specific expertise in lipid and carbohydrate abnormalities associated with insulin resistance in liver and/or muscle tissue. The company is also seeking similarly qualified **Lipoprotein Biochemists** with expertise in hepatic lipogenesis, reverse cholesterol transport and/or atherogenesis.

Applicants should send a complete curriculum vitae, a brief description of research experience and names of three references to:

Dr. Anthony H. Cincotta
Director of Research
Ergo Science Incorporated
100 First Avenue, Fourth Floor
Charlestown, MA 02129-2051

NEW ENGLAND CAREER OPPORTUNITIES

Faculty Position Animal, Plant or Microbial Physiology

The Department of Biology, University of Pennsylvania invites applications for a tenure track position at the level of Assistant Professor from outstanding scientists with research interests in any area of animal, plant or microbial physiology. Individuals whose work employs molecular, biochemical, biophysical, genetic and/or systems approaches to organismal physiology, the interactions of organisms with their environment or interactions among organisms are encouraged to apply. The Department of Biology is broadly based in animal and plant molecular, cellular, and developmental biology as well as genetics, organismal biology, ecology and evolutionary biology. Candidates are expected to have demonstrated excellence and productivity in research and must have an interest in undergraduate and graduate education. Please send curriculum vitae, statement of research and teaching interests, copies of 2-5 representative publications and three letters of recommendation to: Physiology Search Committee, Department of Biology, University of Pennsylvania, Philadelphia PA, 19104-6018. The application deadline is November 15, 1995. *The University of Pennsylvania is an Equal Opportunity employer. Women and minorities are encouraged to apply.*

Faculty Position Ecologist/Evolutionary Biologist

Applications are invited for a tenure track position at the Assistant Professor level in the Department of Biology at the University of Pennsylvania. We seek an individual who uses modern (for example, molecular, stable isotopic, quantitative experimental) approaches to address fundamental ecological and/or evolutionary questions at any level of biological organization. The successful candidate will have demonstrated excellence and productivity in research and must have an interest in undergraduate and graduate education. Please send a curriculum vitae, a research and teaching statement, and three letters of reference to: Ecology/Evolution Search Committee, Department of Biology, University of Pennsylvania, Philadelphia PA, 19104-6018. The application deadline is November 15, 1995. *The University of Pennsylvania is an Equal Opportunity Employer. Women and minorities are encouraged to apply.*

ALPHAGENE

AlphaGene is a new biotechnology company which develops high-quality and innovative gene libraries for the emerging biotechnology industry, utilizes these libraries for efforts to map the human genome, and develops novel approaches in the biologic and genetic analysis of human disease.

AlphaGene is recruiting highly-motivated molecular biologists for the following positions:

SCIENTISTS SENIOR SCIENTISTS

Candidates must possess a Ph.D. degree in molecular biology with extensive experience in cloning, DNA sequencing, and expression of heterologous genes in prokaryotic and eukaryotic cells. Experience in the synthesis of gene libraries, PCR, site-directed mutagenesis, and genetics is highly desirable. Scientific talent, dedication, achievement focus, and teamwork skills a must.

AlphaGene, founded by scientists from Harvard Medical School, is located in the Boston/Cambridge area, amidst strong academic institutions and a growing community of "leading-edge" biotechnology companies. AlphaGene offers a competitive salary, a generous benefits package, opportunities for growth, and an "environment of excellence" for professional and commercial success. Qualified candidates are requested to submit, in confidence, a cover letter, their curriculum vitae, and two references to: **Dr. George Scheele, AlphaGene Resources, Building 96, 13th Street, Charlestown, MA 02129.** *An Equal Opportunity Employer M/F/D/V.*



Faculty Positions Neurobiology

MIT is seeking to expand its strengths in neurobiology through faculty appointments in the Department of Brain and Cognitive Sciences, the Department of Biology, and the Center for Learning and Memory. Applications are sought for several tenure-track professorships. The area of interest is broad, but we are particularly interested in candidates with research programs in the fields of learning and memory, development and neural function. Opportunities are available for both individuals studying vertebrate and invertebrate organisms, using genetic, biochemical, molecular biological, cell biological, and physiological techniques.

Applicants should have significant research accomplishments, the ability to establish and maintain a rigorous research program and a commitment to excellence in education at the undergraduate and graduate levels.

Applicants should submit a curriculum vitae and a summary of current and proposed research work, and should arrange to have three letters of recommendation sent to: **Mary McGahan, Department of Brain and Cognitive Sciences, E25-435, 77 Massachusetts Avenue, Cambridge, MA 02139-4307.** Applications will be considered as soon as they are complete and letters of recommendation have been received. Qualified women and minority candidates are especially encouraged to apply.

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MIT is a non-smoking environment

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

POSITIONS OPEN

COLUMBIA UNIVERSITY

ASSOCIATE RESEARCH SCIENTIST or POST-DOCTORAL FELLOW at Columbia University to work in molecular mechanisms of sterol regulation of gene expression or atherosclerosis in mouse models. Send curriculum vitae to: Dr. Alan Tall, Division of Molecular Medicine, Department of Medicine, Columbia University, New York, NY 10032. *Columbia University is an Equal Opportunity/Affirmative Action Employer.*

SYMPOSIUM

SYMPOSIUM: Therapeutic Antibody Technology 95 October 30 to November 1, 1995; Cathedral Hill Hotel, San Francisco, California. Speakers: C. Barbas, G. Barsomian, C. Borrebaeck, D. Burton, P. Carter, D. Charish, K. Chester, A. Griffiths, A. Grillo-Lopez, K. Hellstrom, A. Hiatt, H. Hoogenboom, P. Hudson, A. Jakobvits, K. Johnson, W. Marasco, G. Mark, J. Marks, S. Morrison, I. Pastan, A. Plückthun, L. Ostberg, J. Reno, M. Rosenberg, T. Scanlon, W. Stemmer, L. Weiner, I. Wilson. Abstracts due October 16, 1995. Organizers: J. Larrick, J. Marks. Sponsor: Palo Alto Institute of Molecular Medicine, 2462 Wyandotte Street, Mountain View, CA 94043. Telephone: 415-694-4996; FAX: 415-694-7717; Email: PAIMM@AOL.COM.

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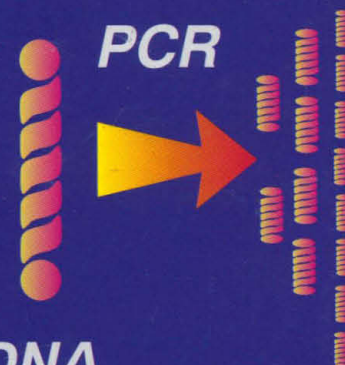
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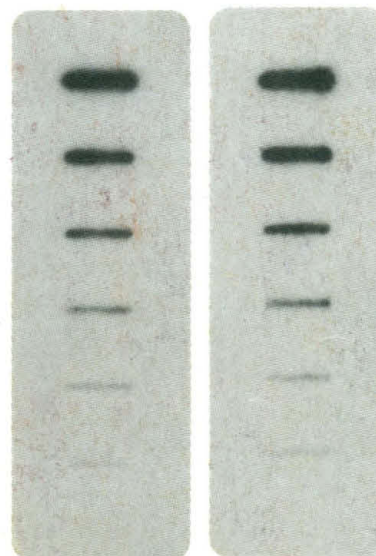
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