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* Lennon, G., Auffray, C., Polymeropoulos, M., Soares, M.B. 1996. The I.M.A.G.E. Consortium: An Integrated Molecular Analysis of Genomes and their Expression. Genomics 33, 151-152.

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Full-Page Recruitment Advertising Directory

East Coast Careers in Biotechnology and Pharmaceuticals

The following organizations have placed full-page recruitment advertisements in the special advertising supplement in this issue of SCIENCE beginning on page 406.

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Geience careers have their concentrations, their local neighborhoods and cultures. The East Coast of the United States features four major pockets of career opportunity: Boston/Cambridge; the Philadelphia-New York corridor; Washington, DC/greater Maryland; and the Research Triangle area in North Carolina. Below, we hear from scientists at (moving from north to south) Scriptgen Pharmaceuticals, Bristol-Myers Squibb, Science Registry, Pharmacopeia, Osiris Therapeutics, and Glaxo Wellcome about the busiest thousand miles of science in the world.

"A Candidate's Market": Scriptgen Pharmaceuticals

Medford, Massachusetts—"The Cambridge/Boston area is a candidate's market right now, in an industry in which cutting-edge science is turned into breakthrough drugs," says Karen A. Hamlin, senior director of operations at Scriptgen Pharmaceuticals, Inc. The local concentration of colleges, universities, and medical institutions ensures an annual talent pool of elite graduates. And Boston/Cambridge biopharma has grown so rapidly in the past five years—with Scriptgen, Millennium, Genetics Institute, the Astra Research Center, and other companies all hiring—that competition is fierce for good candidates. Scriptgen's main research focus is the development of orally active drugs to control gene expression, with antifungal, antibacterial, and antiviral research programs and several lead compounds showing promise in animal models. In February, Scriptgen was awarded a US patent for ATLAS (Any Target Ligand Affinity Screen), a high-throughput screening process that measures affinity of compounds for target proteins.

Hiring interests at Scriptgen reflect the hottest fields at the present moment: BS and MS scientists with solid biochemistry skills; good protein purification expertise; genetics, specifically bacterial and fungal genetics; and experience with high-throughput screening. At the PhD level, bacterial, viral, and fungal genetics is key, along with the molecular biology and tissue culture of infectious organisms. At all levels, knowledge of the drug development process is much prized. "PhDs looking to do postdocs should seriously consider those that offer exposure to the drug development process," Hamlin says.

Entry-level candidates with hands-on lab experience stemming from thesis projects, research programs, industrial co-ops, and summer internships "have tremendous opportunities available to them," according to Hamlin, while those without such experience "probably won't be called." All candidates should be well-read in the literature of their field and be able to communicate what they know.

In the next year, Hamlin anticipates up to 30 percent growth in the scientific staff at Scriptgen, about one third at the PhD level and the rest among BS and MS scientists. "That growth I see happening in all the areas of the company, but most of all in our antimicrobials area," she says. "We're hiring people who enjoy a dynamic, fast-paced, multidisciplinary, collaborative environment. It's a very cohesive, very exciting place to be."

CONTINUED >

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

At **Schering-Plough Research Institute**, we are pursuing scientific research that will ultimately help improve the health and extend the lives of millions of people around the world. At our Drug Discovery Facility in Kenilworth, NJ, scientists are focused on developing increasingly advanced treatments for cancer, allergies, cardiovascular disease, central nervous system disorders, respiratory disease and infectious diseases. You could play an integral role in our next breakthrough by joining us in our state-ofthe-art research laboratories.

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New Jersey, Capital Of The World: Science Registry and Pharmacopeia

Cranford, New Jersey-About sixty percent of all US biopharma jobs are found between South Carolina and Maine. Of these, forty percent-or about a quarter of all such jobs-are in New Jersey. While the person on the street may not realize New Jersey's preeminence, it's a thing of beauty to Don Truss, president of Science Registry, a full-service staffing firm for science professionals. "New Jersey is an active center of industrial science," he says. "What's happening right now is happening here. The industry has changed, and scientists are changing jobs as often as everyone else is. Large pharmaceutical companies are choosing to have a smaller core group of employees, and they're outsourcing as much as possible, a trend that I see continuing. This is behind the rise of the contract research organization."

"Right now, clinical research is booming," Truss says. Demand for clinical research assistants especially exceeds supply. The typical profile: a BA or BS in science or nursing, with two years of clinical experience in a hospital or pharmaceutical company. "Again," he says, "this is a product of outsourcing, and with it the rise of contract clinical research organizations." Other areas of demand include statistical analysis software programmers, process validation engineers, regulatory affairs, and technical writers. "Demand for bench workers with one to three years of experience remains strong," he says, "especially here in the Northeast.'

Truss expects increased demand for scientists with good computer skills, especially bioinformaticists and combinatorial chemists: "Having excellent software and computer knowhow on your résumé is a big plus." He also expects a larger and larger proportion of scientists to work on a temporary or consultant basis.

And if you want a paean to the science life in New Jersey, listen to Don Truss: "Anyone working here has a choice of commuting to a dozen large pharmaceutical companies. That makes for a very vigorous, rich, and dynamic work environment."

Further south, in Princeton, Nolan Sigal, senior vice president of drug discovery at Pharmacopeia, considers New Jersey and says, "It's fair to say, particularly in the Philadelphia-New York corridor, that our proximity to so many big pharmaceutical companies does allow us to form a culture of small-molecule discovery, a talent pool you might not necessarily find elsewhere."

About 200 employees strong, Pharmacopeia began with combinatorial chemistry and has evolved into drug discovery. "We're now using our expertise in combinatorial chemistry and high-throughput screening to get drugs into clinical development as quickly as possible," Sigal says. That process works in one of two ways: "We provide our library expertise to larger companies. They may come to us with a target of interest, and our biologists and chemists address that target, find and optimize leads, and get the result-

The Promise Of Unmet Needs:

Neuroscience At Bristol-Myers Squibb Wallingford, Connecticut—The Bristol-Myers Squibb (BMS) Pharmaceutical Research Institute is located midway between Hartford and New Haven. Perry Molinoff, vice president of neuroscience drug discovery, comments on the similarities and differences between academic and industrial research, and on the attributes that BMS looks for in recruiting scientists:

The most striking thing about drug discovery in the neurosciences today is the enormous opportunity that exists. There is no other area where there is so much unmet need and so few truly effective drugs. Neuropsychiatric disease is associated with enormous individual and societal costs. For example, there are many drugs available for the treatment of depression, but about 40 percent of patients are treatment resistant. In a significant number of diseases—such as stroke and Alzheimer's disease—no effective therapy exists.

It's an era of great excitement. For the first time, we have access to specific molecular targets to try to identify drugs with which to treat neuropsychiatric disease. These elements have resulted in a great opportunity in drug development, which is why several of the larger pharmaceutical companies, such as Bristol-Myers Squibb, Eli Lilly, and Pfizer, have joined the search for effective agents. ing compound quickly into preclinical development. Or, when we generate the target, then our goal is to find the compound ourselves, get into animal studies, then do the rest with outside firms. After all, why build one's own pharmacology department, when excellent, fullyestablished ones exist nearby?"

At Pharmacopeia the sciences of greatest interest are combinatorial chemistry and also medicinal and synthetic chemistry. Biochemists, cell biologists, and molecular biologists are needed to develop targets and run assays. And engineers help automate the process of both chemistry and highthroughput screening. "And we are developing a strong information science group," Sigal says, "developing new tools and paradigms as an overlay on our core strengths." CONTINUED ►

Here in Wallingford, we're looking at significant expansion in the neuroscience program, about 25 percent this year and more in 1998. Openings exist for both PhDs and research associates. Areas of need include molecular biology, neurochemistry, whole animal biology, pharmacology, and electrophysiology.

At BMS, we do almost everything in teams, both within and across therapeutic areas, so that we have collaborative programs with colleagues in cardiovascular disease, metabolic disease, and dermatology. Career-long, you are unlikely to spend your entire career on a single topic; we tend to complete projects and turn them over. Changes of direction, however, aren't always dramatic: often, they follow logically from the consequences of an existing program.

What makes an applicant attractive? Strong science, first and foremost. We're looking for top-flight scientists willing and able to be creative in a fast-paced environment. My advice to prospective scientists is to gain expertise in one aspect of your field while also learning the broad boundaries of your discipline. Research in neuroscience is by definition multidisciplinary and collaborative. Enormous opportunities exist for young scientists interested in trying to devise novel approaches to identifying therapies to satisfy an important unmet medical need.

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Bristol-Myers Squibb is expanding its reach into the future of Immunology and Inflammatory Diseases. A progressive, dynamic group of scientists are already pushing into new frontiers in the treatment of rheumatoid diseases, inflammatory bowel disease, lupus erythematosis transplant rejection and related diseases. BMS is seeking to add skilled scientists to this team.

They will investigate mechanisms of cellular transduction, cell growth, coreceptor cell activation and animal modeling.

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Bristol-Myers Squibb Pharmaceutical Research Institute Human Resources Dept. JA-SCI P.O. Box 11279, Trenton, NJ 08620-0279 FAX: 609-581-8841

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Pharmaceutical Research Institute

RESEARCH SCIENTISTS



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Astra Arcus USA, Inc. is a research unit of Astra Arcus AB, one of the five research product companies of Astra. Like the parent product company, Astra Arcus USA is wholly engaged in research targeted to the discovery of new drugs for central nervous system diseases, primarily stroke and neurodegenerative diseases. The US facility is located in upstate New York, ideally situated between the shores of Lake Ontario and the Finger Lakes, in a suburb of Rochester, New York. In order to support on-going and future drug discovery efforts, the laboratories of Molecular Biology and Biochemistry of Astra Arcus USA, Inc. are recruiting innovative, energetic, team-oriented scientists dedicated to discovery and development.

<u>BIOCHEMISTRY</u>

POSTDOCTORAL FELLOW

The selected individual will participate in the elucidation of novel signal transduction pathways within the CNS and determine their role in neurodegeneration. The ideal candidate should possess a Ph.D. in Biochemistry, Cell Biology, or related field. Experience in primary cell culture, protein purification and characterization, enzymology, and transcriptional regulation, with an interest in neurobiology, inflammation, and neurodegeneration is preferred. **Ref. Ad. #DR5820**.

MOLECULAR BIOLOGY

The Molecular Biology group combines bioinformatics with molecular and genetic techniques to explore pathways and mechanisms of neurological disease through independent research programs and focused collaborations with in-house scientists and academic groups. Expansion of our research program has created the following career opportunities for talented researchers at the forefront of drug discovery.

POSTDOCTORAL FELLOW - POTASSIUM CHANNELS

We are seeking a molecular biologist who will clone and characterize novel potassium channels from the CNS. Molecular and *in silico* techniques of gene identification will be combined with expression and functional analysis in heterologous systems, including yeast. This researcher will collaborate with an academic consortium studying potassium channels. Candidates should have a recent Ph.D. degree with experience in cDNA library construction, PCR, and hybridization techniques. A knowledge of ion-channels and neurobiology is preferred. Experience with yeast is desirable but not essential. **Ref. Ad. #JR5860**.

SCIENTIST - BIOINFORMATICS

Our gene target identification effort requires a scientist who will establish and apply computational sequence analysis methods for database searching, function prediction, and gene informatics. Candidates should possess either an MS/BS degree with 2-3 years of practical experience in molecular biology and applied computer science, or a Ph.D. degree in a related field. Experience with WWW development, GCG, and familiarity with molecular biology with strong computer skills preferred. **Ref. Ad. #JR58601**.

SENIOR SCIENTIST - YEAST GENETICS

We are seeking an experienced and creative biologist who will use *S. cerevisiae* genetics, two-hybrid technology, and heterologous expression to explore neurodegenerative disease pathways. As a leader of a core group, this investigator will develop innovative projects consistent with the strategic goals of CNS disease research; and will also support ongoing, external collaborative research on potassium channels. Candidates should possess a Ph.D. degree and have had postdoctoral experience with yeast genetics. A general knowledge of cell biology, signal transduction, and neuroscience is desirable. **Ref. Ad. #58602.**

These positions offer attractive compensation commensurate with experience, a benefits package including 401(k), and managed relocation assistance. For consideration, please send resume, including salary history, and three references to: **Human Resources Department**, **Astra Arcus USA**, **Inc.**, **P.O. Box 20890**, **Rochester**, **NY 14602**. Please indicate appropriate reference # with your inquiry.

Informal inquiries about the Molecular Biology positions may be directed to John Reid (REID@IPROLINK.CH) until 31 July 1997. Astra Arcus USA, Inc. is an Equal Opportunity Employer M/F/D/V





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NASA/Goddard Space Flight Center Human Resources Operations Office, Code 113.8 ATTN: Ms. Christina Reed Greenbelt, MD 20771

For more information about position requirements and application procedures, please call Ms. Reed at (301)286-3729 or (301)286-7918 (TDD). Applications may be submitted at any time, but no later than September 1, 1997 in order to be considered for one of the first appointments. It is expected that the evaluation of applications that are received after September 1, 1997 will be made on a quarterly basis.

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Life at a small company is full of excitement, "very much peaks and valleys," in Sigal's words. "If a project is going well, people pop champagne in the halls. If not, they feel the pressure, because they know the fate of the company is on the line. What's wonderful is that you can see the direct impact your work has on the company's fortunes, probably more so than in a larger company. People can have that impact early in their career—we've had people come in who were heading projects in six months. That's just the nature of a small company."

Beautiful Views At Osiris Therapeutics

Baltimore, Maryland—"The Washington, DC/Baltimore/greater Maryland area is now the third leading US biotech region, behind the San Francisco Bay Area and Boston/Cambridge," says Daniel R. Marshak, senior vice president and chief technology officer of Osiris Therapeutics. "You can see why: a critical mass of biotech talent, proximity to government agencies such as the FDA and NIH, to Johns Hopkins University Medical Center and the University of Maryland, and to the medical and pharmaceutical resources of Philadelphia and New Jersey."

The picture window in Marshak's office looks out over Baltimore Harbor as he speaks with enthusiasm about his company's work with human mesenchymal stem cells (hMSCs) in developing therapeutics for regenerating tissues. "That brings in cell therapy and related gene and biopharmaceutical therapy," Marshak says. "These are the progenitor cells for structural and connective tissues such as bone, cartilage, muscle, and tendon, and we're exploring applications in orthopedics and cancer therapy."

Who need apply? Scientists versed in cell and molecular biology, as well as those experienced in cell processing and product development. "A lot of people know how to grow cells as a medium out of which soluble recombinant proteins are the product," Marshak says, "but we're looking for people who can grow cells where the cells themselves are the product—not only grow them but also handle the regulatory issues surrounding cell-based manufacturing facilities."

Good, rigorous science is paramount for

all applicants to Osiris, along with good communication skills ("possibly the biggest deficit we see among our candidates") and an interdisciplinary background. "Some of our best work," says Marshack, "is being accomplished by people who can move from materials science to tissue engineering, or from molecular biology to functional genomics." And Marshak would like to see more scientists well-grounded in classical molecular physiology: "We'll need them as we continue to merge genomics, tissue engineering, and cell therapy."

Over the next six months, Osiris is slated to grow from 63 to over 100 employees. "These stem cells are incredibly interesting—only the second multilineage stem cell to be identified and characterized. We've brought together a diverse group, ranging from chemical engineers and material science engineers to cell biologists, molecular biologists, veterinarians, physicians, and analytical biochemists. It's a wonderful environment, in which we're learning a great deal every day, just in terms of basic science, but also in the tremendous possibilities of products for the regeneration of damaged tissue."

Not East Or West But Global: Glaxo Wellcome

Research Triangle Park (RTP), North Carolina—Mary Jane Silvey, director of matrix services, medical affairs division, of Glaxo Wellcome Inc., has been present at the creation of a global recruitment strategy for R&D. She sees a future driven by genetics, technology (meaning automation and bioinformatics), and partnerships.

Glaxo Wellcome has been and is a world research leader in HIV and GI therapeutics, respiratory and metabolic diseases, antiviral and anti-infective agents, oncology, and cardiovascular disease. For the future, this pharma giant needs scientists handy with large data sets and familiar with automated systems and processes. "These people will be computer literate, multiskilled, and adaptable," Silvey says. "People who know both drug discovery and drug development, both the science and the business side."

To be sure, Glaxo Wellcome will be hiring at all levels, from the entry-level BS to the senior PhD. "One hot area is definitely bioinformatics," Silvey says. "We need people who can turn all this new information into usable knowledge." That means job openings for genetic epidemiologists; combinatorial chemists, medicinal chemists, and organic synthetic chemists; and pharmacoeconomists. She cites two other positions for which demand far exceeds supply: experienced bioinformaticists—"There are so few bioinformatics programs at US institutions that we find ourselves recruiting instructors rather than students!"—and MDs with clinical research experience, "to lead our development programs."

Silvey advises undergraduate scientists to consider degrees in chemistry, pharmacy, bioinformatics, genetics, computer science, pharmacology, and molecular biology. Students should get lab experience in coops, summer internships, and research projects. "Anything you do to enhance and increase your computer literacy will make you more marketable," she says, "as will good written and verbal skills." Scientists changing career sectors might "focus on the trends and determine what your core competencies are." What you see may compel you to take more courses, go back to school, broaden your skill sets.

And it doesn't hurt to be living and working in the Research Triangle, the verdant environs of which have attracted biopharmaceutical companies of all sizes. "The science is good and the hiring is competitive up and down the east coast," Mary Jane Silvey says, "but we know the RTP is a highly desirable place to live and work, with a distinct and enjoyable culture. At any rate, our focus isn't so much east coast/west coast as it is global." ■

JULY CAREER WORKSHOPS:

Join us for an online discussion group on Interviewing Skills and Job Negotiation for Minority Scientists in the Biotechnology and Pharamaceuticals Industry at the Science Professional Network Web page (www.sciencemag. org). Click on Science Professional Network, and then click on Career Workshops. Ron King of the NIH is our guest expert for the month of July.



has been a leader in the biotechnology industry in discovering, commercializing and collaborating with academia and the pharmaceutical industry on novel protein therapeutics. To date, nine of these have advanced to human clinical evaluation or commercialization, and the outlook for continued innovation is unprecedented.

On December 31st, 1996, Genetics Institute became a wholly-owned subsidiary of American Home Products (NYSE:AHP). American Home Products is one of the world's largest research-based pharmaceutical and healthcare products companies, and is a leading developer, manufacturer and marketer of prescription drugs and over-the counter medication.

Our success as one of the largest biotechnology employers in Massachusetts has been fueled by our collaborative work environment focused on the future. This culture attracts and inspires some of the brightest minds whose ideas sustain us as a leader in the industry. Join us in making even more advancements that improve quality of life for all of us:

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DRUG PRODUCT DEVELOPMENT

Development Staff - Parenterals Process Manufacturing Development

We currently have an exciting opening for an experienced, dedicated professional to participate in the development of our drug product manufacturing process for protein parenterals. Specific areas of involvement include process development, technology transfer, and validation. To qualify, you must have a BS in a scientific or engineering field, plus at least 3 years of experience in aseptic processing of parenterals. Process development or validation experience is desirable. Job Code: SCI718-PL-387

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MAMMALIAN AND MICROBIAL CELL SCIENCES LAB

Molecular Biology Scientific Staff We seek an experienced professional with a demonstrated understanding of the regulation of gene expression and the methods used to study it to participate in the generation and characterization of cell lines producing recombinant therapeutic products. You will also contribute to technology development activities. To qualify, you must have a BS/MS, plus at least 3 years of relevant laboratory experience. Specific work with cell culture techniques and protein analysis would be a plus, as would proficiency with DNA analysis software. Job Code: SCI718-PL-87

Molecular Biology Postdoctoral Position

Join us and study the regulation of gene expression and apoptosis in high density mammalian cell culture. These investigations are intended to contribute to improved systems for secreted protein production. To qualify, you must have proven expertise in the analysis of eukaryotic gene expression, plus a broad background in cell and molecular biology. An emphasis on cell proliferation and/or programmed cell death is preferred. Experience with FACS and methods for in situ analysis on gene expression would be a plus, as would proficiency with DNA analysis software. Job Code: SCI718-PL-PD

Molecular Biology/Virology Specialist We seek a detail-oriented professional with outstanding organizational, communi-cations, and computer skills to develop and implement PCR-based assays for the detection of potential viral contaminants of production cell cultures. You will also participate in a comprehensive program to ensure he viral safety of recombinant therapeutic proteins produced in mammalian cells. To qualify, you must have a herapetite proteins produced in manual cells, no quality, you may neve a Ph.D., and hand-on experience in molecular biology, including extensive experience with PCR. Formal training in virology is preferred. Job Code: SC1718-377

CAMBRIDGE, MA.

IMMUNOLOGY/HEMATOPOESIS

Development Staff

This is an ideal position for a highly experienced Immunology professional. You will develop assays to assess the immunological function of novel secreted and membrane-bound proteins. To qualify, you must have a Ph.D. in Immunology or a related field, plus 3 or more years of relevant postdoctoral experience. Specific involvement with gene therapy techniques (preferably retroviruses) and with the evaluation of cellular and humoral immune responses in animals is preferred. Job Code: SCI718-97-335

To be considered for current or future job openings, please send resumes, suitable for scanning (see below), indicating job, directly to: Human Resources Dept., Genetics Institute, Inc. 87 CambridgePark Drive, Cambridge, MA 02140. Fax: (617) 876-8847.

Scannable resumes should be forwarded on plain white bond paper, using standard types and fonts, and no bold or italic print. When faxing resumes, please also mail an original copy.

Genetics Institute offers competitive salaries and benefits, including comprehensive health care, dental and life insurance, three weeks paid vacation, 401(k), pension plan, relocation assistance, tuition assistance, and an on-site exercise facility.

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REGENERON PHARMACEUTICALS, INC.

is a leader in the application of molecular and cell biology to discover novel potential therapeutics for human medical conditions. This dynamic company initially applied its technological expertise in protein growth factors and their receptors, and their mechanisms of action, to the discovery and development of potential therapeutics for the treatment of neurodegenerative diseases, peripheral neuropathies and nerve injuries. More recently, Regeneron has begun to address inflammatory diseases, muscle atrophy, angiogenesis, hematopoiesis and cancer.

We are currently recruiting for the following career opportunities in Tarrytown, New York (Westchester County). and Rensselaer (Albany County) as indicated.

(Positions exist in several research groups for Scientists & Research Associates)

SENIOR SCIENTIST POSITIONS

Ph.D. 5 years experience working in the fields bone biology, angiogenesis, cytokines/inflammation or retinal degenerations. In vivo model expertise required. Attn: BIN S1sci

SCIENTISTS/ POSTDOCTORAL POSITIONS

Ph.D. required with emphasis in any of the following disciplines: Biology, biochemistry, molecular biology, virology, neurobiology, ophthalmology, in vivo bone biology, angiogenesis, muscle biology. Attn: BIN S2sci

RESEARCH ASSOCIATES

BS/MS, plus 1-5 years research experience in biology, biochemistry, molecular biology, or psychology. Attn: BIN Rasci

PROGRAM COORDINATORS

3 openings: Each will work closely with a scientific research director on the administration of a specific research program. Project management (timelines, budgets, reporting, etc.) and technology transfer (licensing, administering collaborations with external investigators, and working with Regeneron's patent and legal groups). M.S. in molecular or cell biology plus 3-5 years experience in program management, technology transfer, and/or business development. Excellent interpersonal, communication, and writing skills are essential. Computer proficiency is required. Attn: BIN EB-PCsci

TECHNOLOGY TRANSFER ADMINISTRATOR

Primary responsibility for the administration of scientific collaborations with outside investigators. Duties will include drafting and negotiating Material Transfer Agreements and CRADAs. M.S. in molecular or cell biology required, plus laboratory experience and/or experience in technology transfer. Excellent oral and written communication skills are essential. Computer proficiency required. Attn: BIN EB-TTAsci

BIOINFORMATICS ANALYSTS 2 Positions Available

Senior Level Analyst - MS/Ph.D. with an in-depth knowledge of computational analysis and interpretation of DNA sequences and protein analysis. Responsible for computational and molecular software systems, analysis of DNA and protein sequence data, including the results of sequence and motif searching. Data management skills, client-server technology in a UNIX-Mac environment and algorithm design and implementation. **Attn: BIN Dvsci**

Associate Level Analyst - BS/MS in computer science with some course biology preferred. 0-1 year working in bioinformatics field, or intern work in related function. Must be fluent in UNIX. Attn: BIN Dvsci

RESEARCH ASSOCIATE, FERMENTATION

BS/MS in Biology or Biochemistry. Experience in formulation development and stability assessment of therapeutic proteins. Strong background in protein bioanalytical methods: SDS-PAGE, western blots, IEF, CD spectroscopy. Knowledge of FDA regs. Attn: BIN DDsci

MANUFACTURING RESEARCH ASSOCIATES

(Positions available in both Tarrytown-Westchester County, NY and Rensselaer-Albany County, NY)

Candidates with BS/MS in Biology, Biochemistry, Biomedical Engineering or related field. Strong writing and computer skills and data analysis.

Albany MRA openings also require experience in cGMP processing in purification and fermentation including set-up, operation and cleaning of all equipment, buffer solution preparation, documentation. Clean room environment. May require non-standard shifts. Computer skills necessary. Attn: BIN MNFTsci

MICROBIOLOGISTS Available in Rensselaer

2 positions available requiring BS and 0-5 years experience with industrial microbiology. GMP documentation, environmental monitoring, water testing and inprocess and final product testing. Attn: BIN BFsci

Candidates should mail or fax letter and resume WITH SALARY REQUIREMENTS to: **Regeneron Pharmaceuticals, Inc., BIN (Specify Code), 777 Old Saw Mill River Road, Tarrytown, NY 10591 or FAX (914)347-2847.** No phone calls please. Only candidates selected for interview will be contacted. EOE M/F/D/V

WHERE "IMPOSSIBLE" UNLOCKS OPPORTUNITY.

The goals we have set and the products we are developing are simply too important to be changed, stopped, or delayed by words like "improbable," "unrealistic," or even "impossible." If you see the impossible as a challenge to overcome ... rather than a reality to accept ... then we invite you to join us in one of these positions:

Scientist Physiology Mouse Genetics

We seek an experienced professional to enhance the group's expertise in mouse genetics and molecular biology. Working with classical genetic mapping and positional cloning technologies, you will participate in our efforts to use rodent models of disease for human disease gene discovery. To qualify, you must have a Ph.D., plus 1 - 2 years of post-doctoral experience. Expertise in physiology and /or pharmacology in combination with a mouse genetics background is essential. Additional experience in mouse genetics and molecular biology is a plus. JOB CODE: 0797-SM-SPMGJ

Metabolic Disease Physiologist

Conduct in vivo rodent studies to explore the effects of peripheral and central administration of compounds on food intake, metabolism, and other parameters relevant to body weight regulation and diabetes. You will also be responsible for establishing a lab group and initiating novel projects. To qualify, you must a Ph.D., MD, or DVM, at least 3 years of postdoctoral experience. Work in icv and hypothalmic administration of compounds, and in vivo metabolic disease models is preferred. **JOB CODE 0797-SM-MDPK**

Postdoctural Scientist Mouse Models

You will be involved in the generation and analysis of mouse models for validation of the in vivo function and relevance to disease of genes. You will also have responsibility for technology development in the generation of targeted mutations. To qualify, you must have a Ph.D. with a sound background in molecular biology and experience in the generation and phenotypic analysis of mouse models. The proven ability to take a gene validation project from the construct-making stage through to the analysis of phenotype, while contributing to other projects, is essential. JOB CODE O797-SM-PSMMK

Senior Software Engineers Science Applications

We have several openings for highly talented engineers to play a key role in the development of systems to push the state of the art in scientific analysis tools. The systems will allow for the rapid analysis and comprehension of multiple test results and comprehension of new types of experimental data generated by scientific techniques which we currently have under development in a number of areas. To qualify, you must have at least a bachelor's degree, plus 5 years of experience developing complex client/server applications. Work/expertise in of several of the following areas is required: C++, relational databases, UNIX, SQL programming, Objectoriented design and programming (Smalltalk, C++, Java), GUI programming, distributed computing and systems, algorithm design, applied statistics, and delivery of applications with a large relational/object-oriented database component. Experience with PERL or shell scripting is highly desirable. Good communications skills a must. JOB CODE 0797-SM-SSEB

User Support Specialist Bioinformatics

Supporting users of proprietary software (both internal and pharmaceutical partners), you will resolve technical problems interacting with engineering, QA, and documentation. BS or MS and 5-10 years' experience with UNIX, MAC or Win95/NT and 20% travel required. Interest or experience in Biology required. JOB CODE 0797-SM-USSB

Director/Senior Manager Business Development

We seek a highly motivated and energetic professional with a strong trAck record of successful dealmaking and technical sophistication to assume lead responsibility for the formation of strategic alliances with pharmaceutical companies. Specific duties include working closely with research to develop programs for partnering, establishing relationships, managing discussions/ negotiations with potential partners, and leading Program Commercialization tasks Forces. To qualify, you must have an MBA or a graduate degree in one of the life sciences, and excellent academic record, and 8 - 15 years of experience in the pharmaceutical/biotech field. JOB CODE SM-0797-DSMBDB

Manager and Director Research and Technology Ventures

TWO POSITIONS are available to work with the scientific community and business staff to identify new technology and opportunities for research collaborations in the academic institutions and biotech firms. You will be responsible for managing the evaluation process for such opportunities and for structuring and negotiating appropriate relationships. To qualify, you must have a Ph.D. or MD in Molecular Biology, Genetics, or a related field, or equivalent experience. Licensing or business development experience is preferred for Manager position, and required for Associate Director position. A background in engineering or automation would be helpful. JOB CODE 0797-SM-MADTLB

Purchasing Agent

Responsible for obtaining materials, scientific equipment and services. Will also assist purchasing management develop and execute sourcing plans that ensure the availability of materials and services in a timely and cost-effective manner. The ideal candidate should have a BS degree in a scientific discipline and at least 8 years' experience in purchasing, preferably in a scientific environment. Additional requirements include computer literacy, the ability to act independently and at all levels of the organization, and the ability to supervise other purchasing personnel. JOB CODE 0797-SM-SBPB

Make it possible. Send or fax your resume, indicating Job Code, to: Human Resources, Millennium Pharmaceuticals, Inc., 640 Memorial Drive Cambridge, MA 02139 - 4815, Fax: (617)225-0884.



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At the Schering-Plough Research Institute, insightful scientists are discovering innovative therapeutic agents that challenge humankind's most debilitating diseases. If you are seeking an opportunity to be on the cutting edge of pharmaceutical discovery, we have several opportunities for talented scientists to join a multidisciplinary team focused on the identification and characterization of receptors and related proteins as potential therapeutic targets.

Associate Scientists

We are seeking molecular biologists and biochemists with extensive experience in any of the following areas: cDNA library construction and cloning, automated DNA sequencing, eukaryotic cell culture, protein purification, or cellular signalling. Candidates should have a BS or MS degree and several years of laboratory experience.

We offer an excellent compensation package including a competitive salary and comprehensive benefits. For prompt, confidential consideration, we invite you to apply on-line at **http://www.sp-research.com** or send a scannable resume and cover letter, original copy only, referencing Dept. RM-BG, to: Schering-Plough Research Institute, MS# 1250, 2015 Galloping Hill Road, Kenilworth, NJ 07033-0539. We are an equal opportunity employer. We regret we are unable to respond to each resume. Only those selected for an interview will be contacted.



Using Science for Human Advantage

Merck Research Laboratories, a world leader in the discovery and development of pharmaceutical and biological products, is seeking to recruit scientists who have a passion for and solid understanding of immunology, cell biology and eukaryotic signal transduction.

Staff/Research Biologist Signal Transduction

We seek a highly motivated individual who can make important contributions to an innovative research project aimed towards the characterization of novel therapeutic compounds directed against specific targets involved in inflammatory processes. Qualified candidates should possess a B.S./M.S. or equivalent in biochemistry, molecular biology or a related discipline with 2-5 years of relevant laboratory experience. The position requires expertise in molecular and biochemical techniques and cell culture, and computer skills. Proficiency in a variety of protein purification techniques is advantageous. (Ad# 43-A)

Research Biologist Leukocyte Adhesion

As a key member of our Immunology and Inflammation Area, this individual will be involved in studying leukocyte adhesion and trafficking. You will be part of a team developing strategies to rapidly identify novel therapeutic compounds directed against leukocyte adhesion molecules. Qualified candidates should possess a B.S./M.S. or equivalent in molecular biology, biochemistry, or a related discipline with 5-10 years of relevant laboratory experience. The candidate should have a broad range of expertise in molecular biological techniques, biochemical techniques, mammalian cell culture, and computer skills. (Ad# 43-B)

Both positions will afford selected candidates the opportunity to develop and contribute creative ideas addressing complex issues related to drug development and designing research tools which are essential for drug discovery efforts. The ability to work independently and as an integral member of a talented interdisciplinary research team is essential as are excellent communication, organization, and problem solving skills. Proficiency in developing assays for high throughput screening is highly desired.

Merck Research Laboratories are located in Rahway, New Jersey, approximately 25 miles from New York City. Our salaries, benefits, and growth potential are excellent. For consideration, send your resume, with three letters of reference and a statement of research interests and goals to **Merck Research Laboratories**, **Human Resources, AD#___, P.O. Box 2000, RY80A-3, Rahway, NJ 07065.** EOE/AA/VH/Employer.





The age

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Candidates must have a Ph.D., M.S., or B.S. degree in the biological and/or chemical sciences or engineering, and significant experience in cell biology, cellular immunology, cell isolation, cell expansion culture, biochemistry, molecular biology and/or biopharmaceutical research.

Osiris offers a unique opportunity to be part of a new age of scientific discovery at our waterfront R & D facility in Baltimore, Maryland. To explore your future with us, send your resume with salary background to Human Resources, Osiris Therapeutics, Inc., 2001 Aliceanna Street, Baltimore, MD 21231-2001. EOE, M/F/D/V.



EAST



UNIVERSITY OF PITTSBURGH SENIOR VICE CHANCELLOR FOR THE HEALTH SCIENCES AND

DEAN OF THE SCHOOL OF MEDICINE

The University of Pittsburgh seeks a person of demonstrated accomplishment and superior intellectual vision to provide leadership for its health science programs. The individual selected must work to ensure that the University builds upon its record as a pioneer in health sciences research; that research results are systematically and expeditiously translated into clinical and preventative advances; that the next generation of health professionals is educated in ways that include both training consistent with current best practices and development of the abilities to adapt in meeting new demands; that practicing professionals are kept abreast of the newest findings and techniques through continuing education programs, and that governmental and civic leaders are assisted in their efforts to achieve high quality care in a cost-effective manner. The Senior Vice Chancellor for the Health Sciences is responsible for the educational, research, and clinical programs of the six schools of the health sciences: the Schools of Dental Medicine, Health and Rehabilitation Sciences, Medicine, Nursing, and Pharmacy and the Graduate School of Public Health.

Requirements include an M.D. degree (or the equivalent), eligibility for senior faculty appointment, evidence of sound scholarship, and demonstrated success in health sciences administration. An understanding of the changes currently affecting our health care system is essential. Experience in an environment of managed care and competition is highly desirable.

Interdisciplinary initiatives, not only between the School of Medicine and the other health sciences schools, but between all the health sciences schools and the other schools of the University, are an integral part of the University's mission.

The Senior Vice Chancellor for the Health Sciences reports to the Chancellor and works closely with both the Provost and the President of the University of Pittsburgh Medical Center.

The Search Committee plans to begin reviewing candidate credentials by October 1, 1997. Nominations and letters of application, with resume, should be sent, by early Fall, to: H.J. Zoffer, Search Committee Chairperson, University of Pittsburgh, 132 Cathedral of Learning, Pittsburgh, PA 15260

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

EXPERIMENTAL GRAVITATIONAL PHYSICS

The Department of Physics at MIT is seeking candidates for a faculty position in experimental gravitational physics. MIT and Caltech are constructing the Laser Interferometer Gravitational Wave Observatory (LIGO), a national

facility for the detection of gravitational waves from strophysical sources. This NSF funded project will provide unique research opportunities in physics and astrophysics. The person fulfilling this position is



expected to engage in undergraduate and graduate education, and may lead an independent research program or play a leadership role in the development of LIGO. Our hope is to fill a tenure track junior faculty position, but we encourage more senior, well established physicists to apply for a possible tenured appointment, in exceptional cases. In any case, we seek candidates who are accomplished in experimental physics and well versed in data analysis. Given the developing nature of this field, candidates with various experimental backgrounds (e.g., astrophysics, high-energy physics, nuclear physics, atomic physics, precision metrology, etc.) will be considered.

Applications are requested before October 1. 1997. Applicants should send a curriculum vitae, a brief description of their current research, and three letters of recommendation to: Professor Richard K. Yamamoto, Chairman, Search Committee, Department of Physics, RM 24-043C, Massachusetts Institute of Technology, 77 Massachusetts Ave, Cambridge, MA 02139-4307. MIT is an Affirmative Action/Equal Opportunity Employer and solicits applications especially from qualified women and minorities.



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Research Scientist, Protein Chemistry

An immediate opening exists for a protein chemist with a Ph.D. or equivalent experience. Qualified candidates should possess protein chemistry, biochemistry and enzymology expertise. As part of an interdisciplinary team, this research scientist will have strategic and technical responsibilities for the isolation and purification of native or recombinant enzymes from bacterial and fungal pathogens. In addi-tion, the individual will be expected to participate in the identification and validation of novel drug discovery targets. Responsibilities include developing purification methodologies, preparation and characterization of purified proteins, riting SOPs and directing research associates. Good communication skills ability to function in a multi-task environment are essential. Job Code: PPRSSci

Senior Research Scientist, Biochemistry

Qualified candidates must have a Ph.D. in molecular biology or biochemistry and a minimum of 5 years' industrial experience. As the leader of a multi-disciplinary team, responsibilities include directing a group of scientists in discovery research to identify, develop and implement target based assay programs for antibacterial and antifungal drug discovery. Knowledge of biochemistry and enzymology, familiarity with molecular biology practices, leadership ability and a strong interest in the discovery of novel anti-infectives is expected. Job Code: PPRSSci

Cubist offers competitive compensation, comprehensive group insurance and benefits, including 401(k), tuition reimbursement, free parking and transportation reimbursement.

For further details, call our new Job Hotline at 617-234-5500.

For consideration please mail or fax a cover letter indicating job code and resume to: Manager, Human Resources, Cubist Pharmaceuticals, Inc., 24 Emily Streets, Cambridge, MA 02139. Fax: (617) 576-0232. We are an equal opportunity employer.



Quality Biotech Inc., a ViroMed Biosafety company, engaged in contract testing for the biopharmaceutical industry, has the following openings in our Testing & Research Dept.

Director-Molecular Biology

As Director of our Molecular Biology Group, you will be responsible for overseeing existing molecular assays and for developing and implementing new assays using novel and emerging technologies. Additional duties include managing the group's technical staff, interpreting data, serving as Study Director and interacting with clients and regulatory authorities.

Sr. Scientific Manager-Virology

We seek a technical manager who is experienced in supervising custom virological studies to join our Virology Group. You will be responsible for serving as Study Director for the design and implementation of studies which demonstrate virus removal and inactivitation in biopharmaceutical processes. In addition, you will manage the group's technical staff and interact with clients and regulatory authorities.

Qualified candidates for these positions will have a Ph.D. in Molecular Biology, Virology or a related field. A proven record of independent scientific leadership, effective management skills with an emphasis on team building, and excellent communication skills are required. Familiarity with FDA regulations and biotech drug development process is preferred as our testing in performed in compliance with GLP/cGMP guidelines.

Quality Biotech is located in the Greater Philadelphia Region -- an area rich in scientific, cultural and recreational diversity. We offer excellent opportunities for professional growth, a competitive compensation and benefits package and relocation assistance. Send C.V. and salary requirements, to: Quality Biotech Inc., Attn: HR-SC797, 1667 Davis Street, Camden, NJ 08104. FAX (609) 342-8078. hr@qualitybio.com EOE M/F/D/V E-Mail:

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IST COAST CAREERS

At **Alkermes** we are applying the tools of biotechnology to the development of sophisticated proprietary drug delivery systems. We are developing product candidates based on three independent technologies: **RMP-7**, for drug delivery across the blood-brain barrier; **ProLease** for sustained release of proteins and peptides; and **Medisorb** for sustained release of small molecule pharmaceuticals. If you are ready to join our challenging, team-oriented environment and match the qualifications for the positions listed below, get in touch with **Alkermes**.

Director of Biochemical Pharmacology

Responsible for the majority of Alkermes' in vivo and in vitro pharmacology biochemistry and much of the cell biology research. Requirements include a Ph.D. in one of the biological sciences and 10+ years' research experience. Broad use of multidisciplinary in vivo and in vitro techniques important, while expertise with in vivo pharmacology, small animal surgery, histology, immunocytochemistry, autoradiography and computer imaging is crucial. **Box RB**

Director of Pharmacokinetics

Develop the biopharmaceutics strategy for sustained release microsphere delivery of bioactive agents, the pharmacokinetic evaluation of new delivery technologies, and the pharmacokinetic package describing delivery of drugs to the brain using RMP-7. Ph.D. and 5 years' relevant pharmaceutical experience. **Box JW**

Senior Research Scientist - Biology

Investigate the pre-clinical biology of polymer-based sustained release drug delivery systems. Evaluate the biocompatibility, toxicology, pathology and *in vivo* dissolution profiles of delivery systems in support of the clinical development of sustained release formulations of a wide range of therapeutic molecules. Ph.D. or DVM with a minimum of 6 years in drug delivery systems, pharmaceutical development or pharmacology. **Box GR**

Research Scientist – Formulations

Design experiments for feasibility studies to develop novel formulations using Alkermes' ProLease technology in conjunction with various large molecule therapeutics. Requirements include a Ph.D. and at least 3 years' experience. **Box SZ**

Research Associate - Protein Analysis

Responsibilities include the analysis of protein structure for the formulations group; designing and performing experiments; evaluating results; and developing methodologies. MS/BS and related experience in protein chromatography and other analytical techniques. **Box SM**

Research Associate - Formulations

Develop, qualify and perform methodologies for microsphere and encapsulated drug characterization. MS/BS plus related experience in polymer characterization and drug delivery systems. **Box FJ**

With clinical trials underway and the commercialization of our proprietary technologies in sight, we provide an exciting collaborative atmosphere and superior professional rewards. For immediate consideration, please send your CV to the indicated box, c/o: Human Resources, Alkermes, Inc., 64 Sidney Street, Cambridge, MA 02139-4136; Fax (617) 494-9263. We are an equal opportunity employer, relying on the strength of a diverse workforce.



Delivering The Science That Delivers The Drugs.

NATIONAL INSTITUTES OF HEALTH Department of Health and Human Services

CHIEF, ORAL & PHARYNGEAL CANCER BRANCH

The National Institute of Dental Research (NIDR) invites nominations and applications for the position of Chief, Oral & Pharyngeal Cancer Branch (OPCB). The Chief, OPCB is responsible for developing and guiding a comprehensive research program which integrates basic, translational and clinical aspects of oral and pharyngeal cancers and ultimately leads to better understanding, diagnosis, treatment and prevention of these tumors. In particular, it is expected that the research program will elucidate the molecular events responsible for neoplastic transformation including mechanisms of cellular growth control, invasion and metatstasis. The Chief will also be expected to develop translational and clinical programs aimed at identifying marker genes whose products may contribute to the development of oral and pharyngeal cancer and/or may serve as targets for diagnostic, preventive or therapeutic strategies.

This is a Federal Civil Service position at the GS-14/15 level, salary range \$64,555 to \$98,714 per annum (including Washington, DC locality pay). The individual selected may be considered for 1) a recruitment bonus of up to 25% of base pay, subject to individual approval, or 2) a relocation bonus of up to 25% of base pay, subject to individual approval. A one-year probationary period must be served by the individual selected if not currently in the Federal service. Alternatively, appointment in the PHS Commissioned Corps may be considered.

The individual selected also may be considered for appointment in the Senior Biomedical Research Service (SBRS). Salary range for SBRS is \$75,935 to \$148,400 per annum, and may include ability to transfer current retirement system (if portable) into NIH employment.

U.S. citizenship is required for appointment to the Federal Civil Service or the PHS Commissioned Corps. U.S. citizens and citizens of countries allied to the U.S. are eligible for appointment to the SBRS. Other employment options may also apply to foreign nationals.

Applicants should have a D.D.S., M.D. or Ph.D. in a science related to health, dentistry or medicine (or possess equivalent combination of experience and training); research accomplishments in an area of relevance to the position; and demonstrated leadership qualities.

Applicants may apply by submitting a curriculum vitae and bibliography, a resume, Optional Application for Federal Employment, OF-612 (available in any Federal personnel office), or an application in any other written format. Applicants are also encouraged to 1) address the knowledge, skills and abilities required for this position; 2) to provide a 2-3 page summary of their research interests and; 3) to provide eight letters of recommendation from colleagues.

Further information about the position and qualification requirements, including the knowledge, skills, and abilities required, may be obtained from:

Ms. Esther M. Cohen Personnel Management Specialist NATIONAL INSTITUTE OF DENTAL RESEARCH National Institutes of Health Building 45, Room 4AS-25 45 Center Drive, MSC 6400 Bethesda, Maryland 20892-6400 (301) 496-6971

Application materials must be postmarked and sent to Ms. Cohen by the closing date of August 22, 1997.

NIH is an Equal Opportunity Employer

Cadus Pharmaceutical Corporation, a leader in the discovery of drugs which regulate G protein-mediated signaling pathways, is expanding its discovery programs based upon its unique proprietary yeast and mammalian cell based screening technologies and has openings for motivated scientists in the following areas:

BIOCHEMICAL PHARMACOLOGY

BS/MS degree in pharmacology and biochemistry or Ph.D. with a minimum of 2 years postdoctoral research and a significant experience in receptor binding and second messenger system assays. Experience with yeast and/or mammalian cell culture techniques, peptide receptology and protein biochemistry is desirable. Code: S-BC

HEAD OF EXPRESSION CLONING Ph.D. scientist with postdoctoral research and 5 years

subsequent management experience needed to direct a team to expression-clone GPCRs or other targets. Broad-based knowledge of expression cloning methodologies and experience with Xenopus oocytes, tissue culture or cDNA cloning needed. Excellent communication skills required. Code: S-HEC

MAMMALIAN CELL BIOLOGY BS/MS with minimum of 2 years experience or Ph.D. with a minimum of 3 years postdoctoral research in mammalian cell biology and gene expression to join Cadus's Assay Development Group. Expertise with mammalian cell culture, signal transduction analysis and strong molecular biology skills are essential. These individuals will be working with projects involving novel whole cell assay systems for G protein-coupled receptor signaling. Code: S-M

MEDICINAL CHEMISTRY The Medicinal and Combinatorial Chemistry Department has an opening for a BS/MS chemist with a solid background in organic chemistry and experience in organic synthesis. Responsibilities include the synthesis, purification, and characterization of novel therapeutic agents using traditional and automated synthetic methods, and the construction of libraries of small molecules targeted for G protein-coupled receptors using modern, robotic systems. Code: S-C

MOLECULAR/YEAST BIOLOGY BS/MS scientists with at least 3 years of experience or Ph.D. scientists with a minimum of three years postdoctoral research experience in molecular biology for a project expressing mammalian signal transduction proteins in yeast. Background in cellular and molecular biology or biochemistry is required. Experience with yeast is a plus and experience in gene cloning and protein analysis is preferred. Code: S-MYB

BIOINFORMATICS PROGRAMMER/ANALYST

BS/MS degree in programming or a degree in a scientific field with related computer experience. Minimum of 2 years experience and strong programming skills including C/C++, Visual Basic, SQL and ODBC needed. Informatics background and familiarity with UNIX and NT environments required. Code: S-BP

Cadus offers competitive salaries and benefits as well as excellent opportunity for career growth in a stimulating collaborative environment. Send CV and List of References, indicating job code, to: Cadus Pharmaceutical Corporation, 777 Old Saw Mill River Road, Tarrytown, NY 10591-6705; or e-mail at: hr@cadus.com. Cadus is an Equal Opportunity Employer.



PHARMACEUTICAL **Career** Opportunities with Luitpold Pharmaceuticals is ideally

situated on the eastern end of **LILIAUUIAN** Long Island, N.Y., where excellent educational institutions, attractive housing and recreational facilities are conveniently available. Our continuing growth and expansion has created an immediate need for more qualified, career-minded individuals in the following categories:

METHODS VALIDATION GROUP LEADER

Responsibilities will include supervisory approval for rejection or approval of analytical data, perform & review validations for stability indicating test methods which include operation of HPLC with PDA detector, preparation and review of analytical method validation protocols and review method validation packages. BS degree in Chemistry and experience in methods validation and HPLC/PDA required.

VALIDATION MICROBIOLOGIST

Responsibilities will include preparation of validation protocols and reports, validation testing, trend analysis on test results, preparation of samples to be sent to outside testing labs, evaluation of microbiological work performed for equipment valida-tion. BS degree Microbiology and thorough knowledge of micro lab procedures.

We offer highly competitive salaries, commensurate with experience and a comprehensive benefits program. Fax or mail resume indicating salary requirement and position of interest, to:



LUITPOLD

Luitpold Pharmaceuticals, Inc. One Luitpold Drive, Shirley, NY 11967

Fax: (516) 924-1731 Equal Opportunity Employe



In the thirteen years since our opening, the Whitehead Institute has become a prominent resource in the world of biological research, and an integral promising research agendas, and then give them the freedom to pursue their own dreams. The results are nothing short of extraordinary. Join us.

SENIOR SOFTWARE ENGINEERS

 To serve as computational biologists responsible for planning, devising and implementing solutions for analytical information systems, and process control needs arising in projects involving high-throughput sequence analysis, high-throughput physical and genetic mapping, genetics of human disease, and projects based on next-generation high-throughput functional assay technologies such as DNA chips. Requires Ph.D. in Computer Science, Biology, Chemistry or Physics, or equivalent experience, and hands-on data analysis, software development or information system integration, knowl-edge of molecular biologue, project management and guernizory skills, and edge of molecular biology, project management and supervisory skills, and facility with diverse computing environments including programming ability as evidenced by code samples and references.

 SCIENTIFIC PROGRAMMER and experienced RESEARCH TECHNICIAN positions are also available which require a BS or MS in either Biology, Chemistry, Computer Science, or Physics or equivalent experience.

We offer excellent salaries, generous benefits (including tuition reim-bursement), interaction with the MIT community and a convenient location. Please send resumes to: Whitehead Institute for Biomedical Research, Human Resources Department, Ref. S-797, Nine Cambridge Center, Cambridge, MA 02142.

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The Untapped Power of **DISCOVERY**

Established in 1993, SCRIPTGEN has become a leading molecular therapeutics company by developing unique drug discovery technologies that represent breakthrough advances in the race to develop effective therapies. Our proprietary, affinity-based screening system, ATLAS (Any Target Ligand Affinity Screen) allows novel protein targets to be screened in a high throughput mode, and our SCAN (Screen for Compounds with an Affinity for Nucleic Acid) and RNA transcripts technologies are facilitating the discovery of important drugs that regulate RNA. The success of these technologies, coupled with our advances in the therapeutic modulation of microbial gene transcription, has created expansion opportunities in our research organization. We are seeking the skills and expertise of highly motivated, team-oriented scientists who are ready to bring their innovative ideas to the brink of discovery.

Ph.D. Fungal Molecular Geneticists

 Identify and characterize novel antifungal therapeutic targets in our antifungal drug discovery program. Requires a Ph.D. with a strong background in molecular genetics of pathogenic fungi (including, but not limited to, *Candida* spp. and Aspergillus spp).
 Familiarity with transcriptional regulation is a plus. Job Code: FGL7

Ph.D. Biochemist/Yeast Molecular Geneticist

• Perform mechanism of action studies on and determine frequency and mechanism of resistance to novel antifungal compounds. Requires a Ph.D. with extensive experience using enzyme assays and characterization methods, and the genetic analysis of *Saccharomyces cerevisiae*. Experience with in vitro transcription assays desired. Job Code: FGL8

MS/BS Biochemist/Protein Specialist

 Provide hands-on support in maintaining a preparative scale protein purification facility. Requires an MS or BS degree with three plus years of experience with the purification of native and recombinant enzymes using manual and automated chromatographic systems; experience with recombinant protein expression and mammalian cell culture is highly desirable. Job Code: PP2

MS/BS Molecular Geneticists

~ Identify and characterize novel antifungal therapeutic targets in our antifungal drug discovery program. Requires an MS or BS degree in Biochemistry, Molecular Biology, Genetics, Microbiology or related discipline and at least two years of working experience in molecular cloning techniques, especially in microbial systems. Experience with protein purification and developing functional assays highly desirable. Job Code: FGL9

SCRIPTGEN offers competitive salaries and benefits, along with equity participation. Please reference Job Code when responding. Forward letters, references and resume to: Human Resources, SCRIPTGEN Pharmaceuticals, Inc., 200 Boston Avenue, Medford, MA 02155. Fax: 617-396-1028. Email: hr@scriptgen.com An equal opportunity employer.

Tenure-Track Positions Assistant Professor Equivalent

Pathogenesis of HIV Infection

The Laboratory of Immunoregulation, Clinical and Molecular Retrovirology Section, seeks an MD or PhD investigator with expertise in the study of the pathogenesis of HIV with a focus on host protective mechanisms. Areas of expertise may include but are not limited to evaluation of long term non-progressors, the role of vaccine-induced protective immunity, development and preclinical evacuation of immunebased therapies and animal models for HIV infection. Space, technical and postdoctoral fellow support, supply budget, and salary are committed. Applicants must be U.S. citizens or permanent residents. Submit applications to: Dr. Malcolm Martin, Chairperson, NIAID Tenure-Track Search Committee (OE-127), Building 4, Room 315, 10 CENTER DR MSC 0460, BETHESDA MD 20892-0460. Application deadline is September 15, 1997.

Statistical Geneticist/Genetic Epidemiologist

The National Cancer Institute is searching for a tenure track statistical geneticist/genetic epidemiologist with expertise and experience in design, conduct, and analysis of genetic epidemiologic studies of cancer in human populations. The focus of these studies is to elucidate host and environmental interactions in cancer etiology. Applicants must have an

MD or a PhD in human genetics, statistics, epidemiology, or equivalent degree in a related discipline. Requirements of the position also include demonstrated experience in statistical genetics studies, expertise in the conduct of genetic epidemiologic studies, and experience in conducting interdisciplinary investigations. Submit applications to: Judy Schwadron (OE-127), DCEG, NCI, Executive Plaza North, Room 539, Bethesda, MD 20892. Application deadline is September 15, 1997.

To Apply

Please send a cover letter, *curriculum vitae*, bibliography, a one- to twopage statement of research interests and goals, and selected publications to the address listed with each position. In addition, please arrange to have letters of recommendation sent from three references who can provide an evaluation of your professional qualifications.

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In addition to a fast-paced, yet collegial environment, we offer very competitive salaries and excellent benefits induding relocation assistance. For confidential consideration, please forward resume to: Employee Resources, Pfizer Inc, Job Codet _____, Central Research Division, Eastern Point Road, Graton, CT 06340. Far more information about Pfizer, see us on the Internet at: http://www.pfizer.com. We are an equal opportunity employer M/F/D/V.

Ph.D. Level Computational Chemist

We are seeking an independent and creative computational chemist to work directly with our synthetic chemists in facilitating our efforts in combinatorial chemistry, chemical diversity, pharmacophore development, lead optimization and structure-assisted drug design. The position requires a Ph.D. with significant experience in computational chemistry. Postdoctoral and/or pharmaceutical experience is desirable. Strong programming skills and the ability to work in a UNIX environment are also required. The ideal candidate should possess solid communication skills and the ability to work on a multidisciplinary project team. Job Code: 2213

Ph.D. and BS/MS Level LC/MS Specialists

Two positions are available in discovery spectroscopy for individuals experienced in HPLC and HPLC/MS techniques. Successful candidates will work with spectroscopists and synthetic chemists to facilitate drug discovery by traditional and combinatorial chemistry efforts. One of the positions requires a Ph.D. with significant experience in chromatography and mass spectrometry. For both positions, candidates should be familiar with automation and liquid handling technology, and should possess strong instrumentation and communication skills as well as the ability to contribute to a multidisciplinary team. **Job Code: 2214**

BS/MS Level Separations Scientists

Two immediate openings are available in Discovery which center on the use of HPLC to develop separations in support of Medicinal Chemistry on both the analytical and semi-preparative scale. Support of combinatorial purification is a significant portion of the mission. Implementation and development of hardware and software laboratory automation tools will be an area of focus. The qualified applicant will have strong skills in chromatographic methods development, maintenance and troubleshooting of HPLC systems, and the ability to independently design, conduct and report goal-oriented research. Experience with mass spectrometer operation and data interpretation is also desirable. **Job Code: 2215**



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Ph.D. in molecular biology and experience in various strategies for assaying gene expression.

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Ph.D. in molecular genetics and experience in construction of physical maps.

CLONING AND SEQUENCING - GR5

Ph.D. in molecular biology and experience in high throughput sequencing, gene cloning and experience in vector construction.



These positions are available at DEKALB's biotechnology research facility in Mystic, CT. Mystic is a scenic shoreline community located on Long Island Sound, halfway between New York and Boston. For more information on DEKALB, visit our web site at **http://www.dekalb.com**.

Please mail your resume and 3 professional references (indicating position and GR#) to: **DEKALB Genetics Corporation, Human Resources/GR#, 62 Maritime Drive, Mystic, CT 06355-1958. COE**/AA



FACULTY POSITION AND DIRECTOR UNIVERSITY OF RHODE ISLAND COLLEGE OF PHARMACY AND ANTI-INFECTIVE PHARMACOLOGY RESEARCH UNIT ROGER WILLIAMS MEDICAL CENTER

The University of Rhode Island College of Pharmacy and the Roger Williams Medical Center invite applications for tenure-track clinical scientist to fill the position of Director of the Anti-Infective Pharmacology Research Unit located at the Roger Williams Medical Center in Providence, Rhode Island.

Responsibilities include but are not limited to the continued development of the Anti-Infective Pharmacology Research Unit through strong leadership in collaborative and independent research; clinical and didactic teaching of Bachelor of Science and Doctor of Pharmacy students, fellows, residents, and others; and providing service at local, national, and international levels.

Qualified applicants must hold a Pharm.D. or Ph.D. in Pharmaceutical Sciences and have extensive research as well as teaching experience. Preference will be given to candidates who have a strong history of receiving external funding or who are currently funded. The commensurate 12month, tenure-track academic appointment will be at the Associate Professor or Full Professor level and the salary is negotiable. A joint appointment will be made at Roger Williams Medical Center.

Completed applications are requested by November 1, 1997 but will be accepted until the position is filled. Interested persons should submit a letter of application, curriculum vitae, and three letters of reference to:

Marilyn M. Barbour, Pharm.D., Chair, Search Committee Position Log # 161072 University of Rhode Isalnd P.O. Box G Kingston, Rhode Island 02881

The University of Rhode Island is an AA/EEO employer and is committed to increasing the diversity of its faculty, staff, and students. People from under-represented groups are encouraged to apply.

NATIONAL INSTITUTES OF HEALTH NATIONAL HEALT, LUNG, AND BLOOD INSTITUTE DIRECTOR, BLOOD RESOURCES PROGRAM DIRECTOR, BLOOD DISEASES PROGRAM

The National Heart, Lung, and Blood Institute is seeking applications for two extramural senior level positions in the Division of Blood Diseases and Resources: (1) Program Director of the Blood Diseases Program (BDP) and (2) Program Director of the Blood Resources Program (BRP). The Director, BDP, plans, develops, and administers basic and applied research, clinical studies and clinical trials related to hematopoiesis, sickle cell disease, the thalassemias, hereditary and acquired anemias resulting from disorders of hemoglobin, red blood cell membrane and enzyme systems, aplastic anemia and other non-neoplastic disorders of the bone marrow; bone marrow transplantation or modification as treatments for genetic and acquired hematologic disorders; and manages the research training and career development programs in blood diseases. The Director, BRP, plans, develops and administers a program of basic, applied and clinical research in transfusion medicine, hemostasis, thromboembolic, hemorrhagic and platelet disorders and stem cell transplantation; plans and directs research and development activities to assure safety of the blood supply and improve the availability and efficacy of hematopoietic stem cell supply and improve the availability and entracy of hematoported sent cent transplantation and marrow generation; and manages the research training and career development programs related to blood resources. **QUALIFICATIONS:** Candidates must have an M.D., plus the following knowledge, skills, and abilities (KSAs): 1) Professional knowledge/experience in clinical medicine related to hematology; 2) Professional knowledge/experience in research related to hematology; 3) Knowledge/experience with clinical trial research approaches and techniques; and 4) Senior level professional experience that demonstrates the ability to provide leadership in planning, implementing and managing major research programs. Candidates will be evaluated based on their education, training and experience related to these KSAs. Applicants must be U.S. citizens. SALARY: The current salary range is \$75,935-\$98,714. A Physician Comparability

Allowance may be paid up to \$20,000 per year. HOW TO APPLY: Submit a Standard Form 171, Application for Federal Employment; OF-612, Optional Application for Federal Employment; current curriculum vitae/bibliography or other format to: National Heart, Lung, and Blood Institute, Personnel Office, Building 31, Room 5A28, 31 Center Drive, MSC 2484, Patheode MD 2009.2424 Bethesda, MD 20892-2484. Postmark Deadline: August 31, 1997. KSAs must be addressed on a separate sheet of paper or on the KSA Supplemental Form NIH-2252-3. In addition to specific information required in this job vacancy announcement, your application/C.V. <u>must contain</u> the specific <u>required</u> *information* referenced in the Office of Personnel Management OF-510, Applying for a Federal Job. For additional information contact Mr. Christopher Tart at (301) 496-6477.

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INTERDISCIPLINARY, NATIONAL INSTITUTES OF HEALTH NATIONAL CANCER INSTITUTE FREDERICK CANCER RESEARCH AND DEVELOPMENT CENTER **OFFICE OF THE DIRECTOR**

The National Cancer Institute is looking for two highly motivated, innovative biomedical scientists who will work in the Office of the Associate Director of the National Cancer Institute, Frederick Cancer Research and Development Center (NCI-FCRDC) developing new programs which will aid in attaining the goals of the NCI. These two positions will work closely with the new Associate Director, NCI-FCRDC to examine the role that the Center plays as an integral component of the intramural and extramural functions of the NCI. It is planned that this NCI facility, composed of four commercial contractors plus approximately 350 intramural NCI scientists, will become an outstanding national center for AIDS and molecular biologic research and an advanced resource for biomedical technologic methodologies. Both positions will be involved with planning goals, allocation of resources, and networking with the Divisions of NCI and with other Institutes within the National Institutes of Health.

The positions are located at the NCI-FCRDC in Frederick, Maryland, which is 30 minutes north of the main NIH campus. These positions in the U.S. Government are GS-14/15 and have the academic equivalent rank of an assistant/associate professor. United States Citizenship is required. A doctoral degree (Ph.D. or M.D.) is essential but not required, and background in molecular biology, cell biology, genetics, biochemistry, etc., is also a requirement.

If interested, please call (301) 402-2789 for a copy of the recruiting bulletins #CA-97-1937/CA-97-1938. You will also be required to respond to questions concerning your knowledge, skills, and abilities as they relate to the job as stated on the recruiting bulletins.



The NIH is an equal opportunity employer and encourages all qualified women and minorities to apply.



ADVANCED CELL TECHNOLOGY, INC.

Advanced Cell Technology, Inc., the leader in genetic modification and cloning of animals is expanding its scientific staff. Located in the picturesque Pioneer Valley of Western Massachusetts, Advanced Cell Technology, Inc. offers a team-based approach to scientific research. This approach has placed ACT as an industry leader. We are currently seeking to fill the following positions:

IMMUNOLOGIST — **RESEARCH SCIENTIST** Qualified candidates for this position will possess a minimum of 2-4 years postdoctoral experience and a Ph.D. in the area of immunology or related discipline and experience in the field of molecular biology — specifically, gene targeting. Experience in xenotransplantation is preferred. The successful candidate will be responsible for directing and performing studies on the use of cloned large domestic animals for xenotransplantion of cells and organs and publication of research findings in national and international professional journals.

NEUROBIOLOGIST — RESEARCH SCIENTIST

Candidates for the position of Neurobiologist will posses a minimum of 2-4 years postdoctoral experience and a Ph.D. in the discipline of neurobiology or related field and experience in molecular biology — specifically in the area of gene targeting. Preferred candidates shall also have experience in neural cell transplantation in laboratory species. Position responsibilities include, but are not limited to, directing and performing studies on the use of neural cells derived from large domestic animals to treat human neurodegenerative diseases and publication of research findings in national and international journals.

Advanced Cell Technology is dedicated to the advancement of biomedical research. For immediate consideration, send curriculum vitae/résumé along with cover letter to Human Resource Director, Advanced Cell Technology, 534 Main Street, Amherst, Massachusetts 01002, or FAX to 413 253-8979.

Advanced Cell Technology, Inc. is an Equal Opportunity Employer.

gen Inc Ion Channel Advances

ICAgen, a biopharmaceutical company devoted to discovering new drugs through a thorough understanding of ion channels, is expanding its biology division.

As a privately held company with laboratories in Research Triangle Park (RTP), N.C., we are the only U.S. company exclusively focused on ion channel drug discovery for broadranging therapeutic applications in metabolic, cardiovascular and nervous system diseases.

Our approach is to bring a skilled and motivated team together to tackle the unlimited possibilities for the discovery of compounds which interact with ion channels.

Sr. Scientist Molecular Biology & Electrophysiology

We are seeking a highly motivated and innovative scientist to join our interdisciplinary team in its study of ion channels and their modulation by novel drugs. Particular responsibilities would be to clone, express, characterize and study the distribution of ion channels. You would be expected to directly use both molecular and electrophysiological techniques, and to participate in the development of assay methodologies for ion channels.

Successful candidates must have a Ph.D. and postdoctoral experience, including at least two years devoted exclusively to the use of molecular methods in the study of ion channels.

Resumes referring to position number MB3 should be sent to:

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The nation's top schools for biological sciences, various chemistry disciplines and clinical medicine ranked by the Institute for Scientific Information's Science Watch as well as the top 20 schools from US News & World Report's Annual America's Best Colleges issue.

Director, Vaccine Research Center

The National Institute of Allergy and Infectious Diseases and the National Cancer Institute, National Institutes of Health (NIH) are recruiting for the position of Director, Vaccine Research Center (VRC). The VRC's goal is the development of an effective HIV vaccine through the integration of modern immunological science with a detailed understanding of HIV and of the mechanisms of the pathogenesis of HIV infection. The VRC will develop existing and new immunogens and vectors and may undertake entirely new approaches to vaccination. The Director will have responsibility for directing a multidisciplinary research program ranging from basic and clinical immunology and virology through vaccine design and production of an HIV vaccine. Applicants must have earned an M.D. or doctorate degree in biomedicine, virology, immunology, or a related field, and have experience with HIV/AIDS, vaccine development and outstanding stature and reputation in the scientific community in the areas of immunology and/or virology. Further qualifications include: experience as a scientific research administrator in the virological, immunological, and/or clinical aspects of infectious diseases in a laboratory and/or clinical research setting and knowledge of medical research operations within the federal government, universities, and nonprofit research institutions, industry, and in an international setting. Annual salary range up to \$148,400. Recruitment bonus up to 25% of base pay may be available. Persons interested in this position may call Dr. John McGowan, Deputy Director, NIAID at (301) 496-9677. For more information on the application process, please contact Lynn Hellinger at (301) 496-9686. Applicants should submit either a curriculum vitae or resume by August 29, 1997 to Ms. Lynn C. Hellinger, Director, Office of Human Resources Management, NIAID, Building 31/Room 7A20; 31 Center Drive, MSC-2520, Bethesda, MD 20892-2520.

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complications, and other diseases. Only recently qualified Ph.D. graduates with hands-on experience in the metabolic actions of insulin, enzyme assay, signal transduction, and tissue culture should apply. Although postdoctoral experience is not a prerequisite, good written and oral communication skills are essential.

Applicants should send a curriculum vitae, cover letter, and names of three references to:

Roger Nolan, Ph.D. Director, Pharmacology Insmed Pharmaceuticals, Inc. 800 East Leigh Street Richmond, VA 23219 FAX: (804) 828-6894

E-mail: rnolan@insmed.com

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SENIOR WRITER, NEWS OFFICER Communications Office (Temporary, through June 1998)

Princeton University seeks an individual to write articles and news stories about the academic, scholarly, and intellectual life of the University, with special emphasis on the sciences, for distribution via internal and external media. Works with reporters in all media to facilitate coverage of research in diverse fields, especially within the physical and life sciences. Manages outreach to television reporters and editors.

Requires BA; proven ability as a writer and editor; ability to communicate effectively verbally and in writing with faculty, senior administrators, and representatives of the news media; strong organizational skills; and familiarity with the news media. Preferred are an advanced degree; several years of successful journalistic experience; and direct experience with science reporting and television news.

Send 2 copies of resume and 3 writing samples to: Princeton University, Office of Human Resources, Clio Hall, Princeton, NJ 08544. Attn: 4039-SW. Review of materials will commence immediately.



POSITIONS OPEN

MEHARRY MEDICAL COLLEGE SCHOOL OF MEDICINE RESEARCH CENTERS IN MINORITY INSTITUTIONS (RCMI) AND THE DEPARTMENT OF BIOCHEMISTRY

FACULTY POSITIONS are available in 1997 and 1998 at the assistant professor, associate professor or professor levels in the area of cell signaling, which has been targeted for expansion at the college. Initial funding for these positions is provided by an NIH-funded RCMII program at the college and support from the School of Medicine.

Recruitment of four individuals is expected in an effort to develop a critical mass of investigators studying cell signaling at the institution. We are seeking scientists who merit primary appointment in the department of bio-chemistry. Joint appointments in clinical or other basic sciences departments are expected. Preference will be given to applicants who have an interest that complements one of our clinical science departments. Selected individuals must have potential or demonstrated competence in the use of molecular biological or biophysical approaches to conducting research in cellular signaling, and must also be capable of and committed to making significant contributions to the teaching and administrative functions of the appointing department(s). Successful applicants will be expected to develop/maintain a funded research program of high quality and to substantially participate in the graduate and professional (medical, dental, and applied health) school teaching programs of the department of biochemistry or other appointing department(s). They will also be required to participate in the further develop ment of molecular neuroscience at the college. Applicants should send curriculum vitae, a statement on teaching interests, names of four individuals who may be contacted for reference, and a summary (not exceeding four pages) of potential research project(s) to either: Fred Jones, Ph.D., RCMI Program Director and Vice President for Research, or John E. Arradondo, M.D., M.P.H., Dean School of Medicine, both at Meharry Medical College, 1005 D.B. Todd Boulevard, Nashville, TN 37208. Applications will be evaluated by the search committee appropriate for the targeted area of cell signaling as well as by the appointing department(s). Meliarry Medical College is an Equal Opportunity/Affirmative Action Employer.

FACULTY POSITION CELLULAR NEURAL ENGINEERING

The Department of Biomedical Engineering invites applications for a tenure-track faculty position with a research emphasis in the area of cellular neural engineering. Strong quantitative and biological background is necessary for combined experimental and theoretical approaches in neuroscience. Preference will be given to applicants with experience in voltage-sensitive imaging of neuronal activity and patch-clamp methods for studies with *in vitro* brain slices and cultured neurons. Can-didates must have a Ph.D. in a relevant field and post-doctoral research experience. Teaching of related biomedical engineering at the undergraduate and graduate levels is expected. Applicants should send a statement of research and teaching interests, curriculum vitae, and the names of at least three references to: Professor Gerald M. Saidel, Chairman, Department of Biomedical Engineering, Wickenden 504, Case Western Reserve University, Cleveland, OH 44106-7207. Email: gms3@po.cwru.edu. CWRU is an Equal Opportunity/Affirmative Action Employer, which particularly encourages applications from women and minorities.

CHAIR DEPARTMENT OF PHARMACOLOGY MCP Hahnemann School of Medicine Allegheny University of the Health Sciences

Allegheny University of the Health Sciences (AUHS) is seeking a Chair of the Department of Pharmacology. Reporting to the Dean of the School of Medicine, responsibilities include providing scientific and administrative leadership to this key basic science discipline. The Chair will inherit a program that is poised for growth in both research and educational activities. He/She will have exceptional vision and innovation necessary to continue development of a first rate Department of Pharmacology. AUHS includes twelve hospitals and is the largest private medical school in the U.S. Interested candidates should submit curriculum vitae, to: Kamel Khalili, Ph.D., Chair, Search Committee and Director, Center for NeuroVirology, Allegheny University of the Health Sciences, Broad & Vine Streets, Mailstop 406, Philadelphia, PA 19102-1192. FAX: 215-762-3241.

POSITIONS OPEN

TENURE-TRACK FACULTY POSITIONS LINUS PAULING INSTITUTE OREGON STATE UNIVERSITY

We invite applications for two 1.0 FTE, 12-month tenure-track faculty positions at the level of **ASSISTANT** or **ASSOCIATE PROFESSOR**, starting January 1998. Applicants will have a Ph.D. or M.D. degree, substantial postdoctoral research experience, and demonstrated expertise in biochemistry, molecular biology, nutrition, or a related discipline. The area of the appointees' research specialization must be human health-related and fall within the mission of the Linus Pauling Institute, which is to determine the roles of micronutrients, phytochemicals, and microconstituents of food in human health and disease. The Institute's new director, Balz Frei, is particularly interested in the molecular mechanisms by which antioxidants inhibit the development of diseases that are caused, in part, by oxidative stress, such as atherosclerosis, certain types of cancer, and neurodegenerative disorders. The successful candidate will be expected to set up an independent, externally-funded research program and to teach in his/her academic home department/college. For consideration at the associate professor level on a fast tenure track, the candidate must, in addition to the above qualifications, have several years of research and teaching experience at the assistant professor level, and must be the principal investigator of an externally-funded research program. Applicants should submit a curriculum vitae and a statement of accomplishments and future goals in research and teaching, and arrange three letters of recommenda-tion to: George Bailey, Chair LPI Search Committee, Oregon State University, 571 Weniger Hall, Corval-lis, OR 97331-6512. FAX: 541-737-5077; e-mail: lpi@orst.edu. For full consideration apply by September 1, 1997; positions shall remain open until filled. OSU is a Land Grant, Sea Grant and Carnegie I research institution. OSU is an Affirmative Action/Equal Employment Opportunity Employer and has a policy of being responsive to dual-career needs.

FACULTY POSITION DEPARTMENT OF MOLECULAR AND CELLULAR PHYSIOLOGY

The Department of Molecular and Cellular Physiology at the Louisiana State University Medical Center (LSUMC) in Shreveport invites applications for a tenuretrack faculty appointment beginning spring 1998. Al-though preference will be given to candidates at the rank of Assistant Professor, outstanding applicants at the Asso-ciate or Full Professor levels will also be considered. Applicants must have a Ph.D. and/or M.D. degree and appropriate postdoctoral research experience. We are seeking individuals with demonstrated competence in the use of modern cell and/or molecular biological approaches and whose research interests complement existing areas of excellence in the biology of the vascular wall and/or inflammation. The appointee will be expected to establish a vigorous independent research program supported by extramural funding and to participate in the teaching of graduate and medical students. Applicants must submit a curriculum vitae, a brief summary of current and future research plans, and the names of three references to: Ms. Shari Boyett, Search Committee Coordinator, Department of Physiology, LSU Medical Center, 1501 Kings Highway, Shreveport, LA 71130. The closing date for applications is September 30, 1997 or until the positions are filled. LSUMC is an Equal Opportunity/Affirmative Action Employer and complies with the guidelines of the Americans With Disabilities Act

CHAIR POSITION DEPARTMENT OF PHARMACOLOGY AND MOLECULAR BIOLOGY

Finch University of Health Sciences/The Chicago Medical School has opened a search for the chair position in the Department of Pharmacology and Molecular Biology. Candidates should have an established funded research program and experience in administration and medical education. The Department has a strong base in molecular-cell biology and neuroscience, and the successful candidate will be able to build on this base with new positions. Internal applicants should send copies of their curriculum vitae, a statement of interest, and names of three references to: Frederick Sierles, M.D., Chair of Search Committee, Department of Psychiatry and Behavioral Sciences, 3333 Green Bay Road, North Chicago, IL 60064, by September 1, 1997. FUHS is an Equal Opportunity Employer.

POSITIONS OPEN

ASSISTANT PROFESSOR OF NEUROBIOLOGY

On the occasion of its 50th anniversary, the Dana-Farber Cancer Institute has launched a new program in neuroscience. Together with the Department of Neuro-biology at Harvard Medical School, the Dana-Farber Cancer Institute now seeks well-qualified applicants for a tenure-track position at the Assistant of Associate Professor level. Candidates are expected to direct innovative and independent research on fundamental problems in neuroscience and to participate in the teaching of activities of the Department of Neurobiology. Developmental neuro-biology and signal transduction within the nervous system are two areas of focus for the search. However, applicants with expertise in other areas of neurobiology will be considered. The position offers significant scientific resources in a stimulating environment. An attractive start-up sup-port package is provided, which includes laboratory space in the new Smith Research Building of the Dana-Farber Cancer Institute. Applicants who have completed the Ph.D., M.D./Ph.D., or M.D. degrees, as well as postdoctoral training, should submit curriculum vitae, bibliography, a brief statement of research interests, and arrange for three letters of recommendation to be sent to **Dr**. Charles D. Stiles, Chair, Neuroscience Search Committee, Dana-Farber Cancer Institute, 44 Binney Street, Boston, MA 02115. E-mail: charles_stiles@ dfci.harvard.edu. All application materials should be re-ceived by October 1st, 1997. The Dana-Farber Cancer Insti-tute is an Equal Opportunity/Affinnative Action Employer. Women and minorities are encouraged to apply.

TENURE-TRACK POSITIONS DEPARTMENT OF PHYSIOLOGY AND BIOPHYSICS UNIVERSITY OF TENNESSEE, MEMPHIS

The University of Tennessee, Memphis, Department of Physiology and Biophysics is actively recruiting for two tenure-track faculty positions. Academic rank is dependent upon experience and qualifications. Candidates should have a Ph.D. or M.D. degree, a good track record in publications, and postdoctoral research experience with a background in cellular and/or molecular biology. The abilities to establish an independent research program in the areas of cardiovascular, gastrointestinal, developmental, endocrine, or epithelial physiology and to engage in teaching activities of the department are expected.

Applicants should send a curriculum vitae, copies of three representative publications, and the names of three references to: Dr. Leonard R. Johnson, The Thomas A. Gerwin Professor and Chair, Department of Physiology and Biophysics, UT Memphis, 894 Union Avenue, Memphis, TN 38163. The University of Tennessee is an Equal Employment Opportunity/Affirmative Action/Title VI/ Title IX/Section 504/ADA/ADEA Employer. Minorities and females are encouraged to apply.

ASSISTANT PROFESSOR—ANIMAL PHYSI-OLOGY. Department of Biological Sciences. Fulltime, tenure-track position to begin January 1998. Qualifications: Ph.D. and postdoctoral experience in an appropriate biological area required. Responsibilities: Teach courses in animal physiology, human physiology, and upper-level courses in area of specialty; pre-med advising. Preference will be given to individuals who can also teach human anatomy. The successful applicant will be expected to develop an externally funded research program and direct graduate students. Application Deadline: September 15, 1997. To apply: Submit curriculum vitae, statements of teaching and research interests, undergraduate and graduate transcripts, and three letters of recommendation to: Dr. Terry Derting, Department of Biological Sciences, Murray State University, P.O. Box 9, Murray, KY 42071-0009. Equal Education and Employment Opportunity, Minorities/Females/ Disabled, Affirmative Action Employer.

Division of Cardiology seeks **ASSISTANT** or **ASSO-CIATE PROFESSOR**. The successful candidate will have demonstrated expertise in molecular biology, and will join **Dr. Bolli** and other investigators to do research focusing on changes in gene expression, gene therapy, and/or transgenesis/gene targeting, as they pertain to myocardial ischemia. Applicants must hold M.D. or Ph.D., have three years postdoctoral training, and be capable of establishing a strong independent research program. Send curriculum vitae, statements of interests, and three references to: **R. Redinger, M.D., Chairman, Department of Medicine, University of Louisville, Louisville, KY 40292**. Equal Employment Opportunity/Affirmative Action. PCN 09275.

McGill University Faculty of Medicine Graham Boeckh Chair in Schizophrenia Studies

The Department of Psychiatry of the Faculty of Medicine invites applications for the newly created, endowed Boeckh Chair in Schizophrenia Studies. The successful candidate will be an internationally recognized investigator with an established and funded research programme in the biological aspects of schizophrenia, with a special emphasis on the genetics of this illness. We are particularly interested in a scientist with or without a medical background, who will provide leadership in building and coordinating an interdisciplinary research team that will take advantage of exciting local opportunities in molecular neuroscience, neuroimaging, human genetics, and evaluative and psychosocial research in psychiatry.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Candidates would benefit from being comfortable in working in both English and French. McGill University is committed to equity in employment.

The Selection Committee will begin reviewing applicants by October 1, 1997.

Applicants should send their curriculum vitae and the names of three referees to Professor Joel Paris, Chair, Department of Psychiatry, 1033 Pine Avenue West, Motreal, Quebec, H3A 1A1.



We're redefining the way the world looks at life sciences. We're the new life sciences company at Monsanto.

We're even more focused on the future. That's why our entire organization, from agricultural biotechnology to pharmaceuticals to food ingredients, is dedicated to life sciences. These are areas that can directly impact our future. Now, we can continuously answer the questions, needs and demands of our ever-changing planet. After all, the world's resources are finite, but our vision for its future is not.

Plant Biochemist

Working with a multi-disciplinary, team-based research group concentrating on the discovery of novel agrochemicals, you will be responsible for the mechanisms of action studies and participation in a new target selection. This includes the development of high throughput in-vitro and in-vivo assay systems.

The qualified candidate must possess a PhD in Biochemistry or a related field and experience in protein purification and analysis including affinity chromatography, FPLC, protein sequence analysis and kinetics. A solid background in assay development, small molecule separations and analysis by HPLC and GC are highly desirable; experience with basic techniques in molecular biology and molecular genetics a plus. Previous research experience in the area of plant sexual reproduction will be given special consideration. Job Code: PB

Plant Biochemist/Molecular Biologist

Working with a multi-disciplinary, team-based research group concentrating on the discovery of novel agrochemicals, you will be responsible for contributing to ongoing research programs involving mode of action studies, target validation and assay development.

The qualified candidate must possess an MS in Biochemistry or a related field (or a BS with 5+ years of relevant experience) and research experience working with proteins, including enzyme assays, and basic molecular biology techniques. A solid background in analyzing small molecules with HPLC or GC desirable; knowledge of plant tissue culture and plant genetics a plus. Job Code: PBMB

Monsanto offers a competitive salary and benefits package, as well as a challenging and outstanding career opportunity in a fast-paced scientific organization. To apply, please send curriculum vitae with the names of three references to: Monsanto Company, Attn: D. Keeton, Job Code: (please select), Mail Zone: U3F, 800 N. Lindbergh Blvd., St. Louis, MO 63167. Applicants must respond no later than August 1, 1997. EEO/AA Employer M/F/D/V. Please visit our website at www.monsanto.com.

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THE NEUROSCIENCES INSTITUTE

SAN DIEGO, CA

The Neurosciences Institute is an independent, not-for-profit organization at the forefront of research on the brain. Located in San Diego, the Institute is also the home of the Neurosciences Research Program and serves as an international meeting place for neuroscientists; Fellows have opportunities to interact with visitors from many institutions worldwide.

FELLOW IN THEORETICAL NEUROBIOLOGY

Applications are invited for positions as Junior Fellow in Theoretical Neurobiology. Since 1987, the Institute has had a research program dedicated to developing biologically based, experimentally testable theoretical models of neural systems. Current projects include information-theoretical analysis of neural signaling, large-scale simulations of neuronal networks and the design of behaving automata. Junior Fellows will have opportunities for collaborations with Senior Fellows in Theoretical Neurobiology and colleagues at the Institute in developing neural modeling and theoretical approaches to understanding brain function. Fellows in Theoretical Neurobiology will have daily opportunities to interact with Fellows in Experimental Neurobiology.

Applicants should be at the postdoctoral level with strong backgrounds in information theory, neural networks, or theoretical neuroscience. Experience in computer modeling is especially welcome. Positions are now available.

Fellows will receive stipends appropriate to their qualifications and experience. Candidates should send a short statement of research interests, a curriculum vitae, and the names of three references to: Dr. Gerald M. Edelman, Director, The Neurosciences Institute, 10640 John Jay Hopkins Drive, San Diego, California 92121.

POSITIONS OPEN

BIOCHEMISTRY FACULTY POSITION UNIVERSITY OF WISCONSIN-MADISON

The Biochemistry Department, University of Wisconsin-Madison, invites applications for a position at the (tenure-track) ASSISTANT or (tenured) ASSOCIATE PROFESSOR level. We are particularly interested in applications from individuals whose research is in the area of eukaryotic biochemistry, especially animal systems. Applicants in other research areas will be considered. The successful candidate is expected to develop or continue a vigorous independent research program and participate in the undergraduate and graduate teaching programs of the department. Applications, including curriculum vitae, list of publications, summary of past work and accomplishments, and a statement of plans for future research should be sent to: Professor Hector F. DeLuca, Chairman, Department of Biochemistry, University of Wiscon-sin-Madison, 420 Henry Mall, Madison, WI 53706-1569. In addition, applicants should arrange for three letters of reference to be mailed to the same address. To assure consideration, all application materials should be received by September 30, 1997. Under Wisconsin statutes, names, titles, and addresses of applicants and nominees may be subject to public release upon request. The University is an Affirmative Action/Equal Opportunity Employer, and encourages applications from women and minorities.

The Chemistry Department at the University of Utah invites applications for two TENURE-TRACK FAC-ULTY POSITIONS, one in the area of analytical chemistry and one in the area of inorganic chemistry. Candidates must have the background, ability, and motivation to establish vigorous, competitive, contemporary research programs and to excel as educators. We anticipate filling the appointments at the junior level, but senior candidates will be considered. A Ph.D. is required and postdoctoral experience is desirable. Initial correspondence should include a detailed curriculum vitae and a statement of proposed research. In addition, applicants should have three letters of recommendation sent directly to the appropriate search committee. Reply to either the Analytical or Inorganic Search Committee, Department of Chemistry, 2040 Henry Eyring Building, University of Utah, Salt Lake City, UT 84112. Deadline for receipt of ap-plications is October 15, 1997, or until a suitable candi-date is identified. The University of Utah is an Affirmative Action/Equal Opportunity Employer, encourages applications from women and minorities, and provides reasonable accommodation to the known disabilities of applicants and employees

FACULTY POSITION IN PHARMACOLOGY UNIVERSITY OF CALIFORNIA, IRVINE

The Department of Pharmacology at the University of California, Irvine (UCI) invites applications for a tenured or tenure-track faculty position at the level of Assistant, Associate, or Full Professor. We seek a scholar with a proven record of research accomplishment in molecular biology who has an interest in the function of neurotransmitters and receptors. Special consideration will be given to candidates with expertise and publications in gene knockout procedures. Other qualifications include an M.D. and/or Ph.D. in pharmacology or a related field and an interest and talent for teaching. Curriculum vitae, references, and a summary of research interests should be sent to: Professor S. Duckles, Chair Search Committee, Department of Pharmacology, College of Medicine, University of California, Irvine, Irvine, CA 92697-4625. UCI is an Affirmative Action/Equal Opportunity Employer.

FACULTY POSITION

The Department of Microbiology and Immunology of the University of California, San Francisco, School of Medicine, is seeking outstanding candidates to fill a tenure-track position in the area of microbial pathogenesis at the level of **ASSISTANT PROFESSOR**. In addition to departmental affiliation, the position includes membership in the Program in Biological Sciences and/or the Biomedical Sciences Program, the excellent campus-wide graduate programs. The search will consider candidates with demonstrated creativity and research productivity in microbial pathogenesis. Interested candidates should send a curriculum vitae, a statement of future research plans, and names of three references by August 1 to: **Search Committee, c/o Pat Clausen, Department of Microbiology and Immunology, Box 0414, University of California, San Francisco, San Francisco, CA 94143.** UC is an Equal Opportunity/Affimative Action Employer. Women and minorities are encouraged to apply.

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POSITIONS OPEN

Molecular Diagnostics. ASSISTANT/ASSOCIATE PROFESSOR (tenured or tenure-track depending upon qualifications) positions at the University of Pittsburgh Department of Pathology for an M.D. or M.D./Ph.D. with a strong molecular background. Responsibilities include establishment or continued growth of an independent research program and focused participation in clinical and educational activities of an active laboratory molecular diagnostics program, which includes oncology, infectious diseases, and genetics. Individuals with interests in molecular oncology and/or cell growth regulation are particularly encouraged to apply. Submit curriculum vitae and names and addresses of three references to:

Jeffrey A. Kant, M.D., Ph.D. Director, Division of Molecular Diagnostics Department of Pathology University of Pittsburgh Medical Center 8764B Scaife Hall 3550 Terrace Street Pittsburgh, PA 15261

The University of Pittsburgh is an Equal Opportunity Employer.

SENIOR FACULTY POSITION MOLECULAR BIOLOGY

The Department of Biochemistry and Molecular Biology of the Oregon Graduate Institute of Science and Technology seeks to hire a molecular biologist at the FULL or ASSOCIATE PROFESSOR level with research interests in regulation of gene expression, molecular cell biology, cellular metabolism, and/or genomic analysis in either prokaryotes or eukaryotes. We are looking for persons with a proven record of scientific accomplishment and solid research funding. A description of departmental research interests can be found at http://www.cbs.ogi.edu/. Send curriculum vitae, names of three references, and a summary of research plans, to: Dr. James M. Cregg, Search Committee Chair, Oregon Graduate Institute, P.O. Box 91000, Portland, OR 97291-1000. Telephone: 503-690-1217; FAX: 503-690-1464; e-mail: cregg@admin.ogi.edu. Equal Employment Opportunity/Affinative Action Employer.

YALE UNIVERSITY DEPARTMENT OF CHEMISTRY

The Department of Chemistry of Yale University solicits applications for a tenured position in biophysical chemistry in the sub-discipline of NMR spectroscopy applied to problems of biochemical and biological interest. An outstanding teacher-scholar's research interests should complement those of the current tenured faculty. The position is expected to be filled for the academic year 1998–99.

Applicants should submit curriculum vitae and a list of publications to: Donald M. Crothers, Chair, Senior Biophysical Chemistry Search Committee, Department of Chemistry, Yale University, 225 Prospect Street, New Haven, CT 06520-8107 by September 1, 1997. Yale University is an Equal Opportunity/Affirmative Action Employer.

HEMATOPATHOLOGIST. The University of Virginia is searching for an academic Hematopathologist at the Assistant Professor level. The candidate will be expected to develop an externally funded research program consistent with departmental objectives. Candidates should have a proven record of scholarship with experience in laboratory hematopathology, including bone marrow/ lymph node interpretation and molecular diagnostics. The candidate must be board-certified/eligible in anatomic and/or clinical pathology. A fellowship in hematopathology is desirable. Submit inquiries to: Donald Innes, M.D., Professor, Department of Pathology, Box 214, University of Virginia Health Sciences Center, Charlottesville, VA 22908. Telephone: 804-924-5198; FAX: 804-924-8060. The University of Virginia is an Affinnative Action/Equal Opportunity Employer.

CARDIOTHORACIC SURGERY POSITION

Recent Ph.D. or M.D. to help oversee efforts as Senior Research Specialist in NIH-funded studies of reoxygenation/reperfusion injury. Studies involve vascular biology (including endothelial function and neutrophilendothelial cell interactions) and large animal cardiovascular physiology.

Send inquiries and résumés to: Gerald D. Buckberg, M.D. Division of Cardiothoracic Surgery, UCLA FAX: 310-825-5895 E-mail: jbecker@surgery.medsch.ucla.edu

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POSITIONS OPEN

DIRECTOR, NETWORKED INFORMATION TECHNOLOGIES LIFE SCIENCES, UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

The School of Life Sciences (SOLS) at the University of Illinois at Urbana-Champaign seeks applications for a fulltime academic professional to serve as Director of the Office of Networked Information Technologies (ONIT) beginning as soon as possible after the closing date. ONIT facilitates the integration of networked computer technology into education and research in the biological sciences. Examples of some of these resources are available on the World Wide Web at: http://www.life. uiuc.edu/. The Director of ONIT is responsible for advising the administration and SOLS faculty on new advances in computer technology, software, and networking to swiftly integrate new developments into teaching and research; and supervising the ONIT and the Educational Technologies Center staff who provide hardware, software, and tutorial support in these areas. Applicants should have a B.S. or higher degree, substantial experience with computer technology, and the essential communication and interpersonal skills to serve as an effective administrator. The salary will be commensurate with experience.

To ensure full consideration, applications must be received by September 1, 1997. Please submit a letter of application, a curriculum vitae, including a summary of relevant experience, and the names and addresses of three references to: Jana Waite, ONIT Director Search Committee, School of Life Sciences, 393 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801. Telephone: 217-333-3044. Interviews may be conducted before the closing date; however, all applications received by September 1, 1997, will receive full consideration. The University of Illinois is an Affirmative Action/Equal Opportunity Employer.

MOLECULAR AND CELL BIOLOGY POSITIONS

ProdiGene, a world leader in the expression and purification of recombinant proteins in transgenic plants, invites applications for full-time positions in molecular biology and cell biology.

Qualified candidates for the molecular biologist position will possess a B.S. degree or equivalent in biochemistry or related field plus four years relevant experience or an M.S. degree plus two years relevant industrial experience. The preferred candidate will possess the experience and skills necessary to manipulate genes from the screening of genomic and cDNA libraries to the construction of plant expression vectors.

Qualified candidates for the cell biologist position will possess a B.S. degree or equivalent in plant biology or related field plus four years relevant experience or an M.S. degree plus two years relevant experience. The candidate must have hands-on experience in plant tissue culture and, preferably, knowledge of *Agrobaterium*.

The successful candidates will join a team responsible for the construction of plant expression vectors and plant transformation and analysis using these vectors. Both positions are available immediately. Please send a letter of interest and curriculum vitae to:

> Lisa Baker ProdiGene, Inc. 1500 Research Parkway, Suite 220 College Station, TX 77845

OPHTHALMIC GENETICS FACULTY POSITION AT THE WILMER EYE INSTITUTE JOHNS HOPKINS UNIVERSITY BALTIMORE, MD

The Wilmer Eye Institute invites applications for a new faculty position at the **ASSOCIATE PROFESSOR** level in the area of ophthalmic genetics including, but not limited to, gene mapping/positional cloning, genetic mechanisms underlying hereditary blindness, animal models, gene therapy, genetic epidemiology. The candidate will receive an appointment in the Wilmer Eye Institute and in a basic science department.

Applicants should send a curriculum vitae, a short research plan, and three letters of references to:

Dr. Irene H. Maumenee Head of the Search Committee Johns Hopkins Hospital Baltimore, MD 21287-9237

JHU is an Affirmative Action/Equal Opportunity Employer.

Roche

DIRECTOR, GLADSTONE INSTI-TUTE OF CARDIOVASCULAR **DISEASE AND PROFESSOR, UNIVERSITY OF CALIFORNIA,** SAN FRANCISCO

Oualified applicants who have a wellestablished biomedical research program in the general field of cardiovascular disease and who have demonstrated ability/experience in directing/ coordinating a multidisciplinary labora-tory are being sought. The research program must use state-of-the-art technology and be on the cutting edge of the area of investigation, as evidenced by peer-reviewed support. An appropriate UCSF faculty appointment, full salary, and excellent laboratory facilities and environment are available.

> Send curriculum vitae and three names for reference to:

Shaun R. Coughlin, M.D., Ph.D. Director, Cardiovascular Research Institute University of California, San Francisco 505 Parnassus Avenue, Box 0130 San Francisco, CA 94143-0130

The University of California and the J. David Gladstone Institutes are equal opportunity/affirmative action employers. Women, minority groups, and disabled individuals are encouraged to apply.



Fellowship in Biopharmaceutics

Postdoctural

Isis Pharmaceuticals, a dynamic biopharmaceutical company and a leader in antisense technology, has an exceptional opportunity in the Department of Toxicology and Pharmacokinetics for the following individual at our Carlsbad, CA headquarters. With strong funding and excellent academic ties, Isis offers a superb environment for outstanding professionals.

The selected candidate will study the structural activity relationships of novel oligonucleotide chemical modifications with their potential for oral bioavailability. Particular interest is directed toward understanding the mechanism of absorption for antisense oligonucleotides. The position is ideal for someone with a biochemistry or biology background, who has recently obtained a Ph.D. with laboratory experience, and who would like to pursue training in biopharmaceutics

Isis offers excellent salaries and benefits, including equity participation. We are located in North Coastal San Diego County, an area offering a wide range of recreational advantages, as well as proximity to world-class educational institutions. For consideration, send your CV, names of three references, and cover letter to: Isis Pharmaceuticals, Human Resources, Code 239, 2292 Faraday Ave., Carlsbad, CA 92008. Principals only. No phone calls please. EOE.



Computational Chemist Drug Discovery

harmaceutical

Our profile

The Molecular Design Group of Roche's Pharmaceuticals Division in Basel (Switzerland), supports drug discovery projects in major therapeutic areas using advanced modeling and computational tools. Further development of such tools is an important activity and responsibility of the group.

Your task

Within our Molecular Design Group you will work on chemical lead discovery and optimization, in close collaboration with medicinal chemists, molecular biologists and biostructural experts (X-ray, Bio-NMR).

Your profile

You must have a strong background in chemical and biostructural research and extensive experience in the implementation or application of molecular modeling tools. You should have a PhD in chemistry or biochemistry, combined with extensive informatics experience and fluency in English.

Contact address

For further information, please contact Dr Hans-Joachim Böhm (phone +41-61-688 9653, Hans-Joachim.Boehm@roche.com). If the above profile fits your background and experience and you are interested in this challenging position, please forward your application, including your curriculum vitae to our Human Resources Department, attn. Mr W. Aschwanden, F. Hoffmann-La Roche Ltd, CH-4070 Basel, quoting reference As268.

POSITIONS OPEN

NMR APPLICATIONS SPECTROSCOPIST

The chemistry department at Rutgers, The State University of New Jersey, New Brunswick, is seeking an NMR applications spectroscopist with training and experience to provide comprehensive NMR spectroscopy applications support to faculty. The duties will include developing and implementing state-of-the-art NMR pulse sequences; training and assisting students in the use of NMR equipment and facilities; managing our NMR facility that includes a 600, 500, and 400 MHz spectrometer; providing intellectual NMR support; and collaborating with faculty. This position requires a Ph.D., preferably in chemistry, biochemistry, or biophysical chemistry, plus experience or doctoral research training in multinuclear and multidimensional high field NMR of macromolecules. Interested applicants should send a curriculum vitae and three letters of recommendation to: Professor Jean Baum, Department of Chemistry, Rutgers University, Piscataway, NJ 08855-0939.

Rutgers is an Equal Opportunity/Affirmative Action Employer.

The U.S. Forest Service invites application for a permanent position (GS-13/14 level, salary range \$51,000 to 60,000 plus a cost of living adjustment) as LEADER OF THE FOREST SERVICE COOPERATIVE UNIT at the University of Alaska, Fairbanks. The successful applicant will serve as co-director of the Bonanza Creek Long-Term Ecological Research Program, an interdisciplinary research program in ecosystem and community ecology; will develop an independent research program in regional ecology; and will advise graduate students. The position requires a Ph.D. and demonstrated leadership in one or more of the fields of systems ecology, landscape ecology, disturbance ecology, community ecology, population ecology, theoretical ecology, or ecosystem ecology, preferably as these fields are applied at the regional scale. She/he will be an employee of USDA Forest Service and will be expected to meet the qualifications of an associate/full professor at the University of Alaska, Fairbanks. Please send curriculum vitae to: ATTN: Cheryl Zerkel, USDA Forest Service, Personnel Office, 333 SW First Avenue, P.O. Box 3623, Portland, OR 97208-3623 by August 13, 1997. Upon receipt of your curriculum vitae, a complete application package will be sent to you. For information about the position, please contact Hermann Gucinski at: 541-750-7357 or on the Internet at: gucinski@fsl.orst.edu.

MOLECULAR DIAGNOSTICS

The Garden State Cancer Center, a free-standing, private, nonprofit basic and clinical research center, invites applications for one or more positions (at the **ASSOCI-ATE** or **FULL MEMBER** levels) in the area of molecular diagnostics. Of particular interest is the area of gene markers for determination of predisposition and prognosis, and for management and therapy of cancer and premalignant conditions. Candidates should have an oustanding record as an

Candidates should have an oustanding record as an independent investigator evidenced by significant research accomplishments, publications, and success in obtaining external funding. Applicants should send a curriculum vitae, brief statement of research interests and plans, listing of current peer-reviewed grants, and four references to: Dr. David M. Goldenberg, President, Garden State Cancer Center, 520 Belleville Avenue, Belleville, NJ 07109. E-mail: gscancer@worldnet.att.net.

ATHEROSCLEROSIS RESEARCH AT HARVARD MEDICAL SCHOOL

A position is available for a qualified Ph.D. or M.D. with significant prior molecular biology research experience to join in studies of atherosclerosis development in transgenic and knockout mice. The successful candidate will have had significant experience in studies of gene expression. Prior work with transgenic mice is highly desirable, as is a strong record of prior research productivity. This project is one of five that constitute a new NIHfunded SCOR program directed by Dr. Michael Gimbrone at Harvard Medical School. Send curriculum vitae and at least three letters of recommendation to: Mason W. Freeman, M.D., Jackson 1328, Massachusetts General Hospital, Boston, MA 02114.

POSITIONS OPEN



POSITION AVAILABLE PFLEGER INSTITUTE OF ENVIRONMENTAL RESEARCH (PIER)

An excellent career opportunity is available with a new research institute for a motivated individual. Over the next two years PIER will be constructing a large permanent facility in Oceanside, California. PIER will consist of a new marine hatchery, laboratories, offices, and an adjacent public aquarium. The aquarium and educational programs will be used to highlight work conducted by scientists of the institute.

An individual is needed to assist in ongoing research projects studying: the biology and culture of giant seabass (Stereolepis gigas); the biology and culture of market squid (Loligo opalescens); and sound production in marine fishes. Over the next two years this work will be conducted at a temporary laboratory, also located in Oceanside. The successful applicant will be expected to perform technicianlevel duties over the next two years, but rapid advance-ment is possible for individuals with exceptional work ethics and specialized skills in one of the following areas: development and implementation of marine educational programs; development and maintenance of public displays; marine fish culture (including culture of algae and rotifers); squid biology and/or culture; hydroacoustics; aquarium curatorial; dive instructor. The ability to work well with others is essential; SCUBA certification and research dive experience desired. Postdoctorals who are willing to work at this level will be considered (the next two years could be used to develop proposals and funding for position as a Senior Scientist in your field). To apply send a résumé, three letters of recommenda-

To apply send a résumé, three letters of recommendation, and a letter stating how you could augment the temporary and permanent facilities. Salary commensurate with experience.

Send applications by 22 August 1997 to: Dr. Michael L. Domeier Pfleger Institute of Environmental Research 1612 Wilt Road Fallbrook, CA 92028 piscivore@compuserve.com

LIFE SCIENCE RESOURCES

An established, fast-growing, U.K.- and U.S.A.-based high-tech company involved in worldwide sales of computer imaging products, high performance digital CCD cameras for life sciences and medicine, has vacancies for the following positions based in our East Coast office in the United States of America:

the United States of America: BIOMEDICAL IMAGING APPLICATIONS SPECIALISTS. Required for scientific support, including customer liaison, installation, and training for systems in customer laboratories. Experience in the application of CCD camera imaging in the life sciences, optical probe applications, and/or digital imaging for fluorescence microscopy is essential; competence in computing and image processing is helpful.

Send curriculum vitae in first instance to: Sally Briers, Life Science Resources, Abberley House, Granham's Road, Great Shelford, Cambridge CB2 5LQ, U.K. Telephone: +44(0)1223 845836; U.S. Freephone: 1-800-747-9530; FAX: +44(0)1223 840342; e-mail: sally@lsr.co.uk; website: http:// www.lsr.co.uk.

GRECC DIRECTOR. Director of the Geriatric Research Education and Clinical Center at the Veterans Affairs Medical Center at Little Rock, Arkansas. M.D.'s or M.D./Ph.D.'s with an established record of research productivity in diseases of the elderly, including health service research, are invited. Expertise in some area of clinical geriatrics is also required. The selected applicant will have a joint appointment at the University of Arkansas for Medical Sciences (UAMS) at the level of Full Professor and will also serve as the Vice Chair of the recently founded Donald W. Reynolds Department of Geriatrics. Interested candidates should send a description of their special interest areas, curriculum vitae, and a list of references to: Stavros C. Manolagas, M.D., Ph.D., University of Arkansas School of Medicine, Slot 587, 4301 West Markham, Little Rock, AR 72203. Closing date for applications is August 31, 1997. Equal Opportunity Employer.

POSITIONS OPEN

DIRECTOR GI RESEARCH

Winthrop-University Hospital, a 591-bed teaching hospital affiliated with SUNY at Stony Brook School of Medicine, has a position available for a Director of GI Research in the Division of Gastroenterology, Hepatology, and Nutrition. Requires a Ph.D. in physiology/pharmacology with a minimum of two years postdoctoral experience with expertise in electrophysiology (specifically patch clamp technique) and general background in molecular biology. There is a fully equipped and funded basic science laboratory including full-time technical support. The major focus of the laboratory is to study intestinal transport in inflammatory bowel diseases. The hospital is centrally located on Long Island, approximately 30 minutes from Manhattan, one block from the LIRR. Please send curriculum vitae and three references to: Executive Recruiter, Human Resources Department, Winthrop-University Hospital, 259 First Street, Mineola, NY 11501. Equal Opportunity Employer, Minorities/Females/Disabled/Veterans.

ASSOCIATE RESEARCH SCIENTIST in human ecology. The Center for Environmental Research and Conservation at Columbia University seeks a Ph.D. scientist to study crucial environmental, conservation, and social problems resulting from the interactions between the well-being of human population and changes in their environment. Scientist will conduct research, training, and extension work to assess, analyze, and interpret conservation and development issues. Experience in social and natural science methodologies and integrative frameworks necessary. Experience with local institutions in developing countries is essential.

The position will be filled as soon as possible. Salary is commensurate with experience. Send curriculum vitae, statement of research experience and interests, and three letters of reference by August 31, 1997 to: ARS Search, Center for Environmental Research and Conservation (CERC), Mail Code 5556, Columbia University, 1200 Amsterdam Avenue, New York, NY 10027. No calls or faxes please.

An Equal Opportunity/Affirmative Action Employer.

SCIENTIFIC RESEARCH POSITIONS are available immediately to investigate the molecular basis of sporadic and familial cancers. Positions are available at the level of RESEARCH ASSOCIATE and beginning POSTDOCTORAL FELLOW at the Fox Chase Cancer Center with responsibility to lead a translational research group involved in the evaluation of genetic predisposition to cancer and to characterize the function of several novel tumor suppressor genes, respectively. Individuals should have a Ph.D. and/or M.D., a strong background in genetics, and experience in a wide array of molecular biology techniques. Interested candidates should send curriculum vitae, names of three references, and brief description of your research interests and experiences to: Department of Human Resources, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111. We are an Equal Opportunity Employer.

SCIENTIST NOVALON PHARMACEUTICAL CORPORATION

Novalon is an innovative post-genomics drug discovery company combining chemistry, molecular genetics, and bioinformatics to accelerate identification of drugs that act on novel human and microbial targets. Expansion of our discovery program provides exciting opportunities for highly motivated individuals. We are currently hiring Ph.D. scientists with two years of postdoctoral experience in molecular biology, bio-

We are currently hiring Ph.D. scientists with two years of postdoctoral experience in molecular biology, biochemistry, or genetics. Please mail a complete résumé and the names of three references to: Human Resources Department, Novalon Pharmaceutical Corp., P.O. Box 569, Chapel Hill, NC 27514-0569.

POSTDOCTORAL POSITIONS are available in a project to perform functional analysis of the mouse genome using region-specific mutagenesis. A newly developed method to create radiation-induced chromosomal deletion complexes in mice using ES cells (*Nat. Gen.* 125: 285, 1997) will be combined with ENU mutagenesis to isolate developmental and meiotic mutants in a defined region of the genome. Applicants should have molecular biology experience, and preferably some background in developmental biology. Contact: John Schimenti, Ph.D., The Jackson Laboratory, Bar Harbor, ME 04609, jcs@jax.org; Telephone: 207-288-6402; website: http://www.jax.org/-jcs.

Director, MRC Dunn Nutrition Unit

We invite applications from outstanding international scientists to succeed Professor Roger Whitehead as Director of this prestigious Unit based in Cambridge. The Dunn is renowned as a centre of excellence for human nutritional research.

The planned move to a new site at Addenbrooke's Hospital in 1998 has created unique opportunities for capitalising on the strengths of the Cambridge science base in areas such as genetics and cell biology. You would also be well placed to forge strong clinical collaborations.

The new Director will lead a group of around 70 staff, including a number of distinguished international scientists engaged in nutrition research, in a range of areas from molecular and subcellular studies to investigations of whole body nutrition and epidemiology. You would be responsible for the overall strategic direction of the Unit's work and be expected to lead your own research programme. The Director will be a key advisor to the MRC, contributing in particular to corporate scientific planning.

We seek a scientist of exceptional ability and international reputation — who has either specialist knowledge of one or more areas which involve or impact on human nutrition, or who is involved in more basic research and wishes to set this in the context of the wider opportunities in human nutrition research.

You should have had previous experience of running a substantial, leading-edge research programme and proven success in the management and leadership of staff. You should also be committed to identifying and training high-calibre scientists in nutrition.

The position is open to both medically and nonmedically qualified candidates currently working in either academia or in a relevant senior rôle in industry. Personal attributes should include an open yet authoritative style, pragmatism, an adaptive mind, and an ability to lead by example and consent.

The MRC's mission is to promote and support, by any means, high quality basic, strategic and applied research with the aim of maintaining and improving human health. The MRC is an Equal Opportunities Employer.

To apply, or for further information, please contact our Recruitment Consultant, **Dr Kevin Young** at: Talentmark Search and Selection, King House, 5-11 Westbourne Grove, London W2 4UA. Phone: 0171-229 2266. Fax: 0171-229 3549. E-mail: Kevin_Young@Talentmark.com

or

Bioinformatics

Our Central Research Division in Leverkusen, Germany has an immediate opening for a research scientist in the field of bioinformatics.

Our profile

Bayer is a globally active, research-based company in the fields of chemicals and life-sciences, headquartered in Leverkusen, Germany. With total annual sales of DM48.6 billion and an annual R&D budget of DM3.6 billion in 1996, we can offer a very attractive working environment for highly-motivated people. (For more details, refer to http://www.bayer.com)

Your task

You will be working in the area of bioinformatics and sequence analysis. In a young and dynamic team you will establish close collaborations with molecular biologists, computational and medicinal chemists, informaticists, and with external cooperation partners in the fields of bioinformatics and genomics.

Your profile

You should have a Ph.D. or Master's degree in informatics or molecular biology and a proven track-record for successful work in the field of bioinformatics. We expect a profound knowledge of relevant software and databases, excellent communication skills, and a good knowledge of software development tools. For further information, please contact Dr. Lorenz Mayr, Bayer AG, ZF-BTM, email: Lorenz.Mayr.LM1 @bayer-ag.de.

Your application

If your background and personal experience fits this profile, please send your complete application (including a brief description of research experience, a list of publications, names of referees, and ref.-No.305) to:

Bayer AG Personalmarketing Frau Redmer Hauptstraße 119 51368 Leverkusen Germany





FÜR MEDIZINISCHE FORSCHUNG The MAX-PLANCK-GESELLSCHAFT invites applications for the position of a

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RESEARCH GROUP LEADER

from young scientists who have achieved a degree of international recognition in their field, preferable in one of the two following areas:

either New methods in light microscopy applied to studies of living cells

(Application deadline: August 31, 1997);

- Structural biology of medically relevant proteins
- (Application deadline: August 8, 1997).

The successful applicant will be expected to conduct a vigorous, original, and independent research program at the

Max-Planck-Institut für medizinische Forschung, Heidelberg.

The position is for 5 years, carries a salary of about 110.000 DM p.a. (C3 scale of the Bundes-Besoldungsgesetz) and is roughly equivalent to an Assistant Professorship (U.S.) or University Lectureship (U.K.). There is no teaching commitment.

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

Applications should include a curriculum vitae, list of publications, a description of major scientific achievements and future research plans, and 3 letters of reference. Applications and the letters of reference should be submitted by the appropriate deadline (see above) to:

Max-Planck-Institute for Medical Research Attn: Geschäftsführender Direktor Prof. Dr. B. Sakmann Postfach 10 38 20, 69028 Heidelberg, Germany FAX: +49 (0) 6221/486459

POSITIONS OPEN

POSTDOCTORAL POSITION. Protein kinases-mediated signal transduction and proteinphospholipid interactions in hematopoietic and endothelial cells. Extensive experience in molecular biology is required. Knowledge of gene knockout is desirable. U.S. ditzens/pennanent residents. Send curriculum vitae and names of two references to: Lyuba Varticovski, St. Elizabeth's Medical Center, TUSM, 736 Cambridge Street, Boston, MA 02135. Telephone: 617-789-3107.

AWU POSTDOCTORAL FELLOWSHIP AT BATTELLE, PACIFIC NORTHWEST NATIONAL LABORATORY Microbiology

Immediate opening—A postdoctoral research fellowship at Pacific Northwest National Laboratory is available for a U.S. *citizen* with technical expertise in microbiology, as demonstrated by departmental degree and/or publications. Demonstrated experience and familiarity with microbial detection/identification and phylogenetics emphasizing nucleic acid-based approaches including but not strictly limited to PCR-based methodologies is desired. Experience in characterizing microbes from aerosol samples greatly desired. Familiarity with host-microbial pathogen systems [animal/human/plant] desirable. Additional experience in the application of flow cytometric analyses for microbial identification or studies of gene expression, antibiotic susceptibility, etc. strongly desired. The candidate will interface with several different laboratory projects involving nucleic acid and other methods of microbial identification. The candidate should be able to obtain a DOE "L" security clearance or DOD equivalent. Stipend—\$35,000.00 plus medical benefits. Funds are

Stipend—\$35,000.00 plus medical benefits. Funds are also provided for relocation costs and travel to scientific meetings. Position is for one year with the possibility of extension to a maximum of three years.

Program administered by Associated Western Universities, Inc.

Send résumés by August 15, 1997 to:

Dr. Mark Kingsley Postdoctoral Fellowship—#9704 Pacific Northwest National Laboratory P.O. Box 999, MSIN K4-12 Richland, WA 99352 Telephone: 509-375-3965 FAX: 509-375-6666 E-mail: mt_kingsley@pnl.gov

RESEARCH ASSISTANT AND ORGANIC CHEMIST

Synthesis, purification, and identification of compounds, and then radiolabeling. Interact with faculty/ staff for biodistribution studies. Ph.D. or equivalent. Initial one year appointment. Contact: Joan Moran, Department of Human Resources, University of Connecticut Health Center, P.O. Box 4035, Farmington, CT 06034-4035. Please refer to Search Code 98-03. Closing date: Wednesday, July 30, 1997, 12:00 noon. An Affirmative Action/Equal Opportunity Employer, Minorities/Females/Persons with Disabilities/Veterans.

RESEARCH SCIENTIST OR POSTDOCTORAL

Position immediately available in lab studying molecular events in the disease myelofibrosis, especially related to thrombopoietin. Candidate should have a background in molecular biology with experience in standard molecular biology techniques. Annual salary: \$36,000 plus fringe benefits. Send curriculum vitae with three references to: Dr. Jen C. Wang, Department of Medical Oncology/ Hematology, Brookdale University Hospital Medica Center, 1 Brookdale Plaza, Brooklyn, NY 11212. FAX: 718-240-6634; Telephone: 718-240-5807.

POSTDOCTORAL POSITIONS GENE TRANSFER

Study mechanisms of gene transfer for use in gene therapy (Science 261:209, JBC 268:16087, 270:24864, BBA 1278:41, Nature Bio. 15:167). Seeking molecular or endothelial biologist or individual with strong background in lipoproteins or hematopoiesis. Send curriculum vitae and names of three references to: Dr. Robert Debs, CPMCRI, 2330 Clay, Stern Building, San Francisco, CA 94115. FAX: 415-561-1725; e-mail: karin@itsa.ucsf.edu.

POSITIONS OPEN



POSTDOCTORAL POSITIONS

The National Cancer Institute, Division of Clinical Sciences, Laboratory of Pathology, has immediate openings for postdoctoral fellows interested in making creative contributions to the following topics in molecular oncology research: angiogenesis, tumor invasion and metastasis, gene regulation, cancer suppressor gene function, signal transduction, and development of cDNA libraries from microdissected premalignant cancer stages. Candidates must be U.S. ditzens or permanent residents. Positions are available immediately. Applicants must have a Ph.D. and/or M.D. and less than five years of relevant experience. Send curriculum vitae with names of three references to: Dr. Lance A. Liotta, NIH, Building 10 Room 2A33, Bethesda, MD 20892. NIH is an Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE

The Department of Neurobiology and Anatomy at Allegheny University of the Health Sciences has a Postdoctoral Associate position available for a trained electrophysiologist to work on a project concerned with the regulation and plasticity of transmitter release at a central synapse.

Applicants should send curriculum vitae, a statement of research interests, and names of three referees to: Donald S. Faber, Ph.D., Professor and Chair, Department of Neurobiology and Anatomy, Allegheny University of the Health Sciences, 3200 Henry Avenue, Philadelphia, PA 19129. E-mail: dfaber@auhs.edu. Deadline for applications is October 1. Allegheny University of the Health Sciences is an Affirmative Action/Equal Opportunity Employer and welcomes applications from qualified women and minorities.

POSTDOCTORAL RESEARCH POSITION REPRODUCTIVE/DEVELOPMENTAL ENDOCRINOLOGY

Postdoctoral research position funded by our NIH Training Program to study fetal-placental trophoblast endocrinology and development *in vivo* during baboon pregnancy. Background in reproductive endocrinology and U.S. *citizenship essential*. Especially interested in individual with experience in morphology/histochemistry. See Endocrine Reviews, **16**:608, 1995. Send curriculum vitae to:

Eugene D. Albrecht, Ph.D. Center for Studies in Reproduction Department of Ob/Gyn and Reproductive Sciences University of Maryland School of Medicine 655 West Baltimore Street Baltimore, MD 21201

POSTDOCTORAL POSITION is available immedaitely for studying signal transduction mechanisms of estrogen and cell-cell adhesion in the central nervous system. Candidates with a Ph.D. degree, background in signal transduction, and with an interest in cell-cell adhesion and neuroscience should send curriculum vitae, statement of research interests, and three letters of reference to: Alex Soler, M.D., Ph.D., The Lankenau Medical Research Center, 100 Lancaster Avenue, Wynnewood, PA 19096. Telephone: 610-645-8230; FAX: 610-645-2205; e-mail: ricercar@tigger.jvnc.net. Equal Opportunity Employer.

POSTDOCTORAL RESEARCH ASSOCIATE

Available October 1, 1997 for studies of TRH gene expression, regulation, and functions. Broad skills in molecular biology, including RT-PCR gene sequencing, and cellular transfection are desirable. Send curriculum vitae, names and addresses of three references to: Dr. J. Wilber, Professor and Head, Division of Endocrinology, Suite N3W50, UMMS, 22 South Greene Street, Baltimore, MD 21201. FAX: 410-328-1623.

POSTDOCTORAL POSITION available to study novel regulators of the cystic fibrosis gene product (CFTR). Applicants must have a Ph.D. or M.D. with experience in patch clamping and/or molecular biology. Send curriculum vitae and three references to: Dr. Kevin Kirk, Cystic Fibrosis Research Center and Department of Physiology and Biophysics, University of Alabama at Birmingham, Birmingham, AL 35294-0005.

POSTDOCTORAL ASSOCIATE YALE MEDICAL SCHOOL

POSITIONS OPEN

Position available immediately to study transcriptional regulation of kidney development and kidney-specific gene expression. Experience in eukaryotic gene regulation desired. Send résumé and names of three references to: Dr. Peter Igarashi, Department of Internal Medicine, Yale University School of Medicine, P.O. Box 208029, New Haven, CT 06520. FAX: 203-785-7068; e-mail: peter.igarashi@yale.edu. Women and members of minority groups are encouraged to apply.

POSTDOCTORAL FELLOWSHIP IN MR RESEARCH

A postdoctoral position is available immediately for a highly motivated scientist to pursue MR research in neuroscience. Excellent research facilities include two new 1.5T clinical MR systems equipped with echo-planar gradients and broadband spectroscopy capabilities. One of these 1.5T systems is dedicated solely to research. A 3T head-only scanner is planned for FY98. Facilities for animal studies include a newly upgraded 4.7T animal system. A Ph.D. and experience in MR research is required; experience in animal/human brain MRS and pulse programming is a plus. Projects available include MRS studies in animal models and dynamic MRS and fMRI research in humans. A highly competitive salary and benefits will be offered to a qualified individual. Applicants should send a curriculum vitae, a brief statement of research interests, and names and addresses of three references to:

Gregory J. Moore, Ph.D. Scientific Director, Brain Imaging Program Department of Psychiatry and Behavioral Neurosciences Wayne State University School of Medicine 4201 St. Antoine, UHC 9B Detroit, MI 48201 FAX: 313-577-5900 E-mail: greg@mri.pet.wayne.edu

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POSTDOCTORAL POSITION, available immediately, to participate in the analysis of a large, 15-year demographic database of a plant population. The analysis will involve the construction of both population projection matrix models and individual-based, spatially explicit stochastic models. Responsibilities of the position will include model design, construction, verification, and application, and preparation of publications. Ph.D. required. Preference given to applicants with relevant experience and interests, including strong quantitative skills, preferably in computer programming or statistics, and a strong background in ecology or evolution. Send curriculum vitae, copies of publications, and three letters of reference to: Dr. Norma Fowler, Department of Botany, University of Texas, Austin, TX 78713. FAX: 512-471-3878; e-mail: nfowler@spice.cc.utexas.edu or craig@cpease.zo.utexas.edu. University of Texas is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS MOLECULAR ONCOLOGY/CELL DIFFERENTIATION HARVARD MEDICAL SCHOOL

Two positions available for Ph.D.s to study gene expression and function during hematopoiesis and to characterize the molecular mechanisms of malignant transformation associated with chromosome translocation in leukemia. Applicants should be highly motivated, with strong background in molecular/cellular biology or biochemistry. Send curriculum vitae and references to: Dr. Dong-Er Zhang, Room 953, Harvard Institutes of Medicine, 77 Avenue Louis Pasteur, Boston, MA 02115. FAX: 617-667-3299.

POSTDOCTORAL POSITION available immediately to study the role of interleukin-1 as an autocrine growth factor for vascular smooth muscle cells. Experience in vascular and molecular biology desirable. Send curriculum vitae and names of three references to: Debbie Beasley, Ph.D., Box 172, Department of Medicine, Tufts New England Medical Center, 750 Washington Street, Boston, MA 02111. FAX: 617-636-1355; email: debbie.beasley@es.nemc.org. Bring your scientific expertise to Canji, Inc. As a highly respected and fast-growing division of the Schering-Plough Research Institute, we continue to discover and develop new weapons in the war against cancer. Using innovative gene therapies based on tumor suppressor genes and other cell-cycle regulators, our pioneering scientific team has developed therapeutic applications for human tumor suppressor genes p53 and RB. As we make important breakthroughs in hyperproliferative research, we are seeking more dedicated scientists to help us take our tradition of excellence into the next century. Currently, we have exceptional career opportunities available at our Torrey Pines Science Park location in San Diego.

SENIOR SCIENTIST, GENE DELIVERY

Working with a team of investigators, you will characterize the *in vivo* distribution of novel gene delivery systems. This will involve the use of established *in vivo* models to design and conduct experiments that compare alternative gene delivery systems for p53, cytokines and other therapeutic transgenes. Using kinetic modeling techniques, you will also optimize organ transgene expression after systemic or regional gene delivery and characterize systemic concentrations following cytokine gene delivery. To qualify, you need a PhD in Pharmacology, Bioengineering or a related discipline, a minimum of 3 years of relevant experience in drug development and a proven interest in gene therapy. A background coordinating studies with contract laboratories is preferred. Hands-on experience

characterizing the pharmacokinetics and biodistribution of protein or gene therapeutics is highly desirable. Knowledge of assay methodologies to quantitate *in vivo* distribution of nucleic acids and transgene expression and interest in the quantitative characterization of kinetic data are also desired. Please respond to Dept. PH230.

POSTDOCTORAL FELLOW, GENE DELIVERY

Breakthroughs in gene therapy. Breakthroughs for your career.

Using organ and histological techniques, you will evaluate alternative methods to measure *in vivo* transfer and expression. This will involve characterizing the delivery of the p53 gene to tumors and normal tissue using viral and non-viral delivery systems. To qualify, you need a PhD in Pharmacology, Bioengineering or a related discipline, substantial experience in drug delivery and strong research interests in gene therapy. Hands-on experience characterizing gene expression *in vivo* (e.g. IHC, histochemistry, *in situ* hybridization) is highly desirable as is an understanding of methodologies that quantitate *in vivo* distribution of nucleic acids and transgene expression. Interest in comparing alternative gene delivery systems along with experience in microscopic techniques, EM and image analysis systems are definite advantages. Please respond to Dept. PH210.

SENIOR SCIENTIST, IMMUNOLOGY

You will characterize the immune response to recombinant adenoviral vectors and evaluate methods to minimize the immune response (e.g. immunomodulation, dosing modification) for gene delivery strategies. In addition, you will analyze and interpret immune response data collected from ongoing preclinical and clinical investigations; evaluate improved *in vivo* adenoviral delivery systems; develop *in vivo* models to compare immune responses to adenoviral, other viral and nonviral delivery systems. To qualify, you need a PhD in Immunology or a related discipline and 3+ years of relevant experience with a strong research interest in adenovirus gene delivery and cytokine gene therapy. Hands-on experience with *in vivo* and *in vitro* techniques to evaluate the immune response to foreign antigens is essential as is a strong understanding of cytokine biology and an interest in the application of cytokine gene therapy in treating human disease. Experience with methods to measure T, B and NK cell activation is strongly preferred. Please respond to Dept. PH300.

ASSOCIATE SCIENTIST, EXPERIMENTAL THERAPEUTICS

You will execute experiments to evaluate the effects of *in vivo* gene therapy. This will involve injections, body fluid samplings and development of microsurgery techniques in a reproducible manner. Experimental efforts will also include monitoring studies and using quantitative methods to assess tumor growth. To qualify, you need a BS in Pharmacology, Toxicology or a related discipline and a minimum of 3 years of experience with *in vivo* experimentation, including experience evaluating the efficacy and safety of novel therapeutics. Knowledge of blood sampling techniques is also essential. AALAS certification is desired. Please respond to Dept. PH400.

POSTDOCTORAL FELLOW, MOLECULAR BIOLOGY

With a focus on cloning and characterizing novel human genes for possible use in gene therapy of prostate and other cancers, you will construct mammalian gene transfer/expression vectors carrying various candidate tumor suppressor genes or other cancer-related genes. You will also perform *in vitro* and *in vivo* tests of these genes for tumor suppression properties and/or other phenotypic alterations, and participate in the development of candidate gene therapy projects. To qualify, you need a PhD or MD with a high level of molecular biology training and skill. Extensive experience in human genetics, cancer genetics or gene therapy is desirable. Please respond to Dept. MB100.

POSTDOCTORAL FELLOW, PROCESS SCIENCES

As a part of a multidisciplinary team, you will explore the use of non-viral systems for delivering therapeutic genes. You will also use physical methods to study the structure of DNA plasmid-lipid complexes. To qualify, you need a PhD in Biochemistry or a related discipline and demonstrated experience with physiochemical techniques (e.g. particle size analysis, zeta potential analysis, low angle light scattering and HPLC). Please respond to Dept. PS200.

In return for your expertise, we offer a highly competitive compensation package, excellent benefits, and a progressive environment that is conducive to professional advancement. For consideration, mail/fax resume including Dept. Code for your position of interest and salary requirements, to: Human Resources, Canji, Inc., 3030 Science Park Road, San Diego, CA 92121. Fax: (760) 741-3737. We are an equal opportunity employer.



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Cell Biology Coordinator/Technician (Ref. #HC1484)

Maintain a cell culture/cell biology/analytical laboratory in a fast-paced product development environment with rapidly changing priorities. This includes working with a cell biology team to provide high-quality, consistent throughput seven days a week. Other responsibilities include: developing and implementing laboratory standards and procedures; coordinate: staffing, supply inventory, equipment maintenance and calibration, and acting as a hands-on technician for a wide variety of cultures and tests that would be performed in a cell biology laboratory.

Requirements are a BS or MS, plus experience. Biological science background preferred. Must have relevant experience and demonstrated competence in all aspects of a cell biology lab, with Good Laboratory Practices experience preferred. Must also be knowledgeable in basic principles of biochemical analysis and basic biological/biochemical laboratory techniques (such as Enzyme Immunoassay and Radioimmunoassay), as well as experience in maintaining laboratory documentation, and planning and scheduling work. Ability to work flexible hours, including some weekends is essential. Previous experience as a lab manager or director is a plus.

Cell Culture/Cell Biology Technician (Ref. # HC1485)

Perform rourine biochemical assays, maintain meticulous documentation, prepare a variety of cell culture media, and provide timely reports on the status of cell cultures. This includes working with team members to develop uniform standards and procedures. Plus, in cooperation with other team members, work a flexible schedule to provide service seven days a week, including feeding and monitoring of living cell cultures.

A BS in Biological Science is preferred. Must also have relevant experience and demonstrated competence in all aspects of cell culture, as well as an understanding of basic principles of biochemical analysis and familiarity with basic biological/biochemical laboratory techniques (such as Enzyme Immunoassay and Radioimmunoassay). Experience in maintaining laboratory records is essential. Experience in each of the following areas is preferred, but not required: maintaining traceability records; Good Laboratory Practices procedures; harvesting and disaggregation of animal tissues for primary culture. Must be able to work flexible hours, including some weekends.

THROMBOSIS SCIENTIST (REF. #JR1500)

Will conduct research into the control of thrombosis on vascular biomaterials and engage in new product development stemming from the understanding of the thrombotic mechanisms on biomaterials. Responsibilities include experimental design, conducting relevant *in-vitro* and *in-vitro* assays of blood-biomaterial interactions, and data analysis. Requires some travel and writing concise reports. Will involve interface with outside surgeons and scientists.

Qualifications include an advanced degree at the doctoral level. Must be skilled in the most current assays and methods of analysis in thrombosis and hemostasis.

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SCIENTIST/SENIOR SCIENTIST

The Department of Pathology and Experimental Toxicology has an immediate opening for a Scientist/Senior Scientist in the Safety Assessment section. The successful candidate will have the proven ability to compile, summarize, and interpret toxicologic findings in Safety Assessment documents for domestic and international regulatory submissions. This individual will also function as a study director for in-house GLP toxicology studies.

A Ph.D. in toxicology or related field, ABT certification or eligibility, working knowledge of GLP principles and ICH guidelines, excellent oral and written communication skills, and relevant experience in the toxicological assessment of pharmaceutical agents and preparation of IND/NDA/MAA submissions are required.

Parke-Davis offers a competitive salary/benefit package and career growth potential. Resumes should be submitted on laser-quality white paper with a legible 10pt. or larger type and avoiding bold or italic typefaces, borders, etc. along with references to: PARKE-DAVIS PHARMACEUTICAL RESEARCH, Human Resource Department, 2800 Plymouth Road, Ann Arbor, MI 48105, Fax: (313) 998-3394, Email: resume@aa.wl.com.

Please reference Job Code: RJB 97201

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Procter&Gamble

SKIN CARE

The Procter & Gamble Company has an immediate opening for a Biochemist/Cell Biologist at the Miami Valley Laboratories in Cincinnati, Ohio. Applicants should have a PhD in biochemistry, cell biology, or related field. This position requires excellence in problem solving, teamwork, and written/ oral communications.



Equal Opportunity Employer No agency referrals, please.

Applicants must be presently authorized to work in the U.S. on a full-time basis.

Biochemist/Cell Biologist

We are seeking a PhD for a skin care project. The person will be developing assay methodology (in vitro and/or in vivo model) to generate understanding of mechanisms in skin and to evaluate the efficacy of materials. The candidate should have a background in biochemistry/cell biology (or related field), ideally with specific experience in cell culture, membrane/nuclear receptors, inflammation, and method development. The ideal candidate will also have knowledge/experience in chemistry (e.g., organic or analytical) and in vivo experimentation (model or human). Postdoctoral experience is desirable.

Procter & Gamble is a world leader in the research, development, manufacture and marketing of a wide variety of health care, beauty care, laundry & cleaning, cosmetic & fragrance, food & beverage and paper products. P&G's annual sales exceed \$35 billion and our annual R&D investment is more than \$1.4 billion. P&G offers a competitive salary and benefits package, placing us among the top 5% of U.S. firms. The Company's R&D organizations provide excellent opportunities for both personal and professional growth.

If you meet the qualifications for this position, please mail or e-mail (plain text only please) a letter of introduction, resume, and a list of publications to:

> Dr. G.D. Owens The Procter & Gamble Company Doctoral Recruiting • Dept. DB2 P.O. Box 538707 • Cincinnati, OH 45253-8707 E-Mail: ruter.jm@pg.com



POSTDOCTORAL FELLOWSHIP IN CELL BIOLOGY

A position is available immediately in the Department of Biochemistry and Molecular Biology at the Mayo Clinic in Rochester, MN, for a qualified individual to study the role of dynamin and dynamin-like proteins in vesicle trafficking and cell motility in mammalian cells. Applicant should have an M.D. and/or Ph.D. degree, experience in cell biological or molecular techniques, and be a U.S. citizen or permanent resident. Send résumé to:

Mark McNiven, Ph.D. 1721 Guggenheim Building Mayo Clinic Rochester, MN 55905

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Do not contact MIT or Stanford directly. They are not responsible for organizing these events.



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Health Effects Laboratory Effects National Institute of Occupational Safety and Health Centers for Disease Control and Prevention Department of Health and Human Resources

Biomedical Instrumentation/Analysis Specialist

The Toxicology and Molecular Biology Branch is seeking a person who, in collaboration with researchers can plan, schedule, and execute instrumental and computer analysis and present data from experiments designed to resolve mechanisms, explore potential interventions, and to identify biomarkers of the disease and/ or exposure to occupational hazards.

Operates specialized and complex instrumentation, such as: upright, converted, and confocal microscopes connected with video and photo image analysis and documentation system; image analysis systems for autoradiography, direct fluorescence, or chemiflourescence of DNA sequencing gels, Southern, Northern, Western, and other blots; systems for DNA sequencing and fragmentation analysis; radioisotope detecting systems; cyctometric analysis. Conducts computer-based analyses using specialized software programs.

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Send Résumé to:

Teresa Cummins NIOSH/HELD/TMBB 1095 Willowdale Road M/S 3014 Morgantown, WV 26505 C/O Biomedical Instrumentation

THE UNIVERSITY OF TEXAS AT AUSTIN COLLEGE OF PHARMACY DEAN



The University of Texas at Austin invites nominations and applications for the position of **Dean**, **College of Pharmacy**. The Dean is the Chief Executive Officer of the College and is expected to provide leadership for the continued development of nationallyrecognized programs of instruction, research, and public service. The Dean serves as a focal point for the College in its interactions with the government, the pharmaceutical industry, the academic community, the profession of pharmacy, and private foundations.

Requirements: Candidates should have an earned Ph.D. in a related pharmacy field and/or Pharm.D., as well as scholarly accomplishments to warrant appointment at the rank of professor (with tenure), preferably in a Division within the College of Pharmacy; an undergraduate degree in pharmacy is also preferred. A thorough understanding of health care reform and its impact on pharmacy practice; a strong national and international record of academic accomplishment; administrative experience at a significant level with outstanding leadership, managerial, and communication skills; commitment to cultural, ethnic, and gender diversity; and evidence of having secured financial support for research and/or educational purposes and knowledge of, or experience in, raising funds from alumni and in the private sector.

To Apply: Submit nomination or letter of application, curriculum vitae, and the names/addresses/telephone numbers/fax numbers/e-mail addresses of five professional references to: Professor Salomon Stavchansky, Ph.D., Chairman of the Pharmacy Dean Consultative Committee, College of Pharmacy, The University of Texas at Austin, Austin, Texas 78712-1074. http:// www.utexas.edu.

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This individual will develop life science applications within MSI's premier simulation program, "Discover." S/he will have input into product design in conjunction with senior scientists and product managers. S/he will be responsible for design, implementation, and code validation. The ideal candidate will have a Ph.D. in Physics or Chemistry, strong C/FORTRAN programming skills and possess a strong knowledge of classical forcefield techniques and applications in a life science environment. Job Code: 96TBH4

PRODUCT MANAGER, SIMULATIONS AND PROTEINS

This individual will be responsible for the planning and marketing of Simulation and Protein engineering software. The ability to analyze the simulation and protein engineering markets and to create and implement product marketing business plans is required. S/he will work closely with customers to develop product requirements for implementation by R&D. Candidates will possess 3-5 years of industry experience in simulation techniques and protein applications. S/he will have knowledge of forcefield methods and the ability to manage external project consultants. A Ph.D in chemistry and strong communication and presentation skills are essential. Job Code: 96TBH11

LEAD ENGINEER, CHEMINFORMATICS

This individual will design ChemInformatics strategy. S/he will architect an infrastructure to manage diverse data sources for chemical, biological, toxicological, and screening data. S/he will also assist in the development of interfacing Web-based applications. An M.S./Ph.D. in computer science or chemistry and experience in software engineering is required. Candidates must possess 4+ years' developing applications for relational databases. Experience in the chemical or pharmaceutical area is desired. Strong object-oriented design and development skills are a requirement. Knowledge of existing chemical information systems (ISIS, Daylight) a plus. Job Code: 4TBH11

PRODUCT MANAGER, WEB PRODUCTS

This marketing manager will drive the productization of our WEB-based products and will be responsible for developing strategies for the product launch of our first WEB-enabled product, "WEB LAB viewer +." S/he will drive documentation, packaging, licensing, support, pricing, and positioning decisions. S/he will purse collaborations for Web products with software vendors, instrumentation companies, and publishing houses. S/he will drive use of WebLab as the standard desktop-based scientific research. S/he will participate in developing MSI's long-term strategy. The successful candidate should possess experience in PC product marketing and have a familiarity with scientific products. Technical appreciation of Java, Axtivex, etc., and knowledge of current Internet issues desired. Job Code: 4TBH4

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are invited to submit their confidential resume (please reference Job Code) to: M. Kearnes, Senior Corporate Recruiter at MSI, 9685 Scranton Road, San Diego, Ca. 92121; Fax: (619)458-0136; E-mail: mkearnes@msi.com. Encouraging diversity in the workplace, we are an EOE/AA employer. Visit our Website at http://www.msi.com



POSITIONS OPEN

POSTDOCTORAL POSITIONS IMMUNOPATHOGENESIS

Postdoctoral positions to study immunopathogenesis of infectious and autoimmune diseases. Current studies include cytokine regulation of innate immunity, *in vivo* effector functions in the CNS and liver, cytokine and sex hormone regulation of APC activity, antigen processing, and CTL memory. Experience in immunology, autoimmune disease, or viral pathogenesis essential. Projects will join active collaborations with **Drs. G. Dennert, C. Bergmann, D. R. Hinton** and **M.M.C. Lai.** Send curriculum vitae and names of three references to: **Dr. Stephen Stohlman, Departments of Neurology and Molecular Microbiology and Immunology, University of Southern California School of Medicine, MCII 142, 1333 San Pablo Street, Los Angeles, CA 90033. FAX: 213-225-2369; e-mail: cbergman@hsc.usc.edu. Equal Opportunity Employer.**

POSTDOCTORAL ASSOCIATE POSITIONS DUKE UNIVERSITY

Positions available to study the molecular basis of nitric oxide regulation in cells. Experience in recombinant DNA techniques, yeast 2-hybrid system, transgenic techniques and protein biochemistry desirable, but all strong candidates will be considered. Please send a curriculum vitae and the names of three references to:

> Jonathan S. Stamler Department of Medicine Box 2612, MSRB Duke University Durham, NC 27710

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POSTDOCTORAL POSITION available immediately for **MOLECULAR NEUROBIOLOGIST** to study effects of abused drugs on mammalian CNS transcription factor and neuropeptide gene expression. Opportunity to apply molecular skills to biochemical neuroanatomy/pharmacology of limbic/basal ganglia systems. Familiarity with subcloning, gel mobility shift assays, riboprobe transcription, and hybridization is desired. Salary commensurate with experience and NIH guidelines. Send curriculum vitae and names of three references by August 31, 1997 to: Jacqueline F. McGinty, Ph.D., Department of Anatomy and Cell Biology, East Carolina University, School of Medicine, Greenville, NC 27858-4354. Affinative Action/ Equal Employment Opportunity.

POSTDOCTORAL/RESEARCH ASSISTANT PROFESSOR position to use multidisciplinary approaches to study neurotransmitter regulation of exocrine epithelial cell biology. Specific research areas include: mechanisms controlling receptor expression and function; cross-talk between receptor-mediated signaling pathways; and regulation of cell-specific differentiation/ gene expression. Experience with cell culture, molecular techniques, cell imaging, and/or viral expression vectors preferred. Position commensurate with experience. Send curriculum vitae along with three letters of recommendation to: Dr. David Culp, University of Rochester Medical Center, Box 611, 601 Elmwood Avenue, Rochester, NY 14642.

POSTDOCTORAL POSITION available to study transcription elongation in HIV-1 promoter. Strong background in molecular biology or biochemistry is required. Prior experience in at least two of the following is required: protein-nucleic acid interaction, protein purification, protein-protein interaction, *in vitw* transcription, protein modification. Send curriculum vitae, summary of research experience, and names of three references to: Dr. Tariq M. Rana, Department of Pharmacology, Robert Wood Johnson (Rutgers) Medical School, 675 Hoes Lane, Piscataway, NJ 08854. E-mail: rana@ umdnj.edu.

POSTDOCTORAL POSITION studying signal transduction pathways in tumor invasion and metastasis is available at the UNC Lineberger Comprehensive Cancer Center. Research involves the mechanism of the focal adhesion kinase in human tumor progression. Applicants must have a Ph.D. or M.D. Send curriculum vitae and references to: Dr. William G. Cance, CB #7210, University of North Carolina, Chapel Hill, NC 27599. Telephone: 919-966-5221; e-mail: cance@med.unc. edu.

POSITIONS OPEN

POSTDOCTORAL POSITIONS to study the development of hematopoietic lineages and mechanisms of thrombopoietin effects using *in vitro* and transgenic models. Send a curriculum vitae and names/telephone numbers of references to: **Dr. Katya Ravid, Boston University School of Medicine. E-mail: ravid@med-biochm. bu.edu; FAX: 617-638-5339.**

POSTDOCTORAL RESEARCH ASSOCIATE ALBERT EINSTEIN COLLEGE OF MEDICINE TUMOR IMMUNOLOGY LABORATORY

Highly motivated individual sought for tumor immunology laboratory within the NCI-funded Albert Einstein Cancer Center to study the development and application of recombinant anti-tumor vaccines. Laboratory is interested in mechanisms of vaccine enhancement in murine tumor models including the role of cytokines, apoptosis, host-immune responses, and applications to human malignancy. Experience in molecular biology, gene cloning, and cellular immunology required. Knowledge of recombinant vaccinia techniques would be beneficial.

Please send curriculum vitae, statement of research interests, and three letters of reference to: Dr. Howard L. Kaufman, Cancer Center, Albert Einstein College of Medicine, Jack and Pearl Resnick Campus, 1300 Morris Park Avenue, Bronx, NY 10461. FAX: 718-430-8550. Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP. The Section on Neuroendocrine Immunology and Behavior at the National Institute of Mental Health is seeking a candidate with experience in molecular biology, immunology, and/or neurobiology to pursue studies in the mechanisms and role of neuroimmune interactions in inflammatory disease susceptibility and associated behavioral responses. These studies involve animal models and/or applications to human subjects, and include molecular genetics and molecular mechanisms of neuroimmune interactions. Candidates must have less than five years of postdoctoral experience. Send curriculum vitae/bibliography and three letters of reference to: Ester M. Sternberg, M.D., Chief, Section of Neuroendocrine Immunology and Behavior, NIMH, Building 10, Room 2D-46, 10 Center Drive, Bethesda, MD 20892-1284. E-mail: ems@codon.nih.gov.

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POSTDOCTORAL RESEARCH ASSOCIATE

Two funded positions are available for structure-activity studies based on protein engineering of human plasminogen and related proteins. Solid background in recombinant DNA technology required. Projects under investigation involve expression of mutant constructs in eukaryotic systems and protein purification and crystallization, and provide opportunity to obtain experience in crystallography. Mail or FAX résunés and names of three references to: Dr. E. Reich, Department of Pharmacological Sciences, SUNY at Stony Brook, NY 11794-8651. FAX: 516-444-3218; e-mail: ed@pharm.som. sunysb.cdu. SUNY is an Affinnative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION available to study the role of the locus control region (LCR) in human β -globin gene regulation using transgenic mice produced with yeast artificial chromosomes and ES cell knockouts. Experience with basic molecular biology techniques is essential and training in transgenic mice procedures or ES cell methods is desirable. Send curriculum vitae and names of three references to: Kenneth R. Peterson, Ph.D., Division of Medical Genetics, Department of Medicine, Box 357720, University of Washington, Seattle, WA 98195. FAX: 206-543-3050; e-mail: krpetc@u.washington.edu. The University of Washington is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately to investigate the functional organization of the vertebrate retina using immunocytochemical and intracellular staining techniques, and light, electron, and confocal microscopy. Experience with anatomical techniques essential. Send curriculum vitae and names of three references to: Dr. Helga Kolb, Morgan Eye Center, University of Utah, 50 North Medical Drive, Salt Lake City, UT 84132. FAX: 801-581-3357; e-mail: hkolb@msscc.med.utah.edu. Affinnative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION is available in suburban Philadelphia to study regulation of intercellular junctional proteins by protein kinase C phosphorylation. Candidates should have a Ph.D. and some background in protein chemistry. Emphasis will be upon the regulation of transepithelial permeability by protein kinase C and cytokine signal transduction pathways (*Exp. Cell Res.* 227:12–22, 1996; *Am. J. Physiol.* 270:F869–F879, 1996) in cell culture, tissue level, and clinical programs. This project is part of a program involving seven tight junctional, cell adhesion, apoptosis, and carcinogenesis laboratories at Lankenau and other North American research institutes.

Send curriculum vitae and the names of three references to: James M. Mullin, Ph.D., Lankenau Medical Research Center, Thomas Jefferson University Health Systems, 100 Lancaster Avenue, Wynnewood, PA 19096. FAX: 610-645-2205. Equal Opportunity/Affinnative Action Employer.

POSTDOCTORAL POSITION in molecular evolution available September 1. Two-year appointment, with possible extension. Salary \$25,000, plus benefits. Several possible projects. Strong background in molecular biology, biochemistry, and evolution preferred. Submit letter of application, curriculum vitae, and three references by August 5 to: Dr. Caro-Beth Stewart, Department of Biological Sciences, University at Albany-SUNY, Albany, NY 12222. E-mail: c.stewart@albany.edu.

The Research Foundation of SUNY and the University at Albany are Equal Opportunity/Affirmative Action Employers. Applications from women, minorities, disabled persons, and Vietnam-era veterans are especially welcome.

POSTDOCTORAL FELLOW. Molecular immune response to the TSH receptor antigen. Well-established laboratory. Previous molecular immunology experience helpful. Under the guidelines of NIH funding, only U.S. nationals or permanent residents are eligible. Starting date and salary negotiable. Send curriculum vitae and names of three references to:

Dr. Terry F. Davies Mount Sinai School of Medicine Division of Endocrinology and Metabolism Box 1055 New York, NY 10029-6574

POSTDOCTORAL RESEARCH PROJECTS at EPA's National Risk Management Research Laboratory in Cincinnati. Projects are available in such areas as chemistry, microbiology, geochemistry, soil chemistry, environmental science, environmental or chemical engineering, mineralogy, and related areas. A doctoral degree received within last three years preferred. *Some projects require U.S. ditizenship or permanent resident status.* Contact: Postgraduate Research Program/NRMRL, ETD/ORISE-MS 36, P.O. Box 117, Oak Ridge, TN 73831-0117. Telephone: 423-576-5654; email: presslep@orau.gov. Ref. NRMRL 97-Package.

MOLECULAR TUMOR BIOLOGY

A POSTDOCTORAL POSITION is available to study the signal transduction mechanisms in cancer cells. Recent Ph.D. with experience in molecular biology and biochemsitry is desirable. Please send curriculum vitae and three references to: Usha Kasid, Ph.D., Associate Professor, Room E208, The Research Building, Georgetown University Medical Center, 3970 Reservoir Road, NW, Washington, DC 20007. An Equal Opportunity/Affinative Action Employer.

POSTDOCTORAL POSITION

Position available immediately to study the extracellular calcium-sensing receptor using genetically engineered mice. Must be U.S. citizen or permanent resident as the position is supported by an NIH training grant. Send curriculum vitae and the names of references to: Martin Pollak, M.D., Renal Division, Brigham and Women's Hospital, H.I.M. 542, 77 Avenue Louis Pasteur, Boston, MA 02115. E-mail: MPollak@rics.bwh.harvard.edu. An Equal Opportunity/Affiniative Action Employer.

POSTDOCTORAL POSITION is immediately available to study biophysical properties of voltage-gated sodium channels. Applicants must have a Ph.D. in a relevant field and experience with patch-clamp and biophysical analysis of ion channels. Send résumés with references to: Ms. Liz Allred, Department of Biology, Utah State University, Logan, UT 84322-5305. FAX: 801-797-0532; e-mail: lizall@cc.usu.edu. Applications will be reviewed starting 23 July 1997. USU is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL POSITION available to investigate the role of homeobox genes in skeletal and neuronal development using transgenic and knockout mice. Expertise in cell and molecular biology or neuroscience required. Dr. Claudia Kappen, Department of Biochemistry and Mo-Rappen, Department of Biochemistry and Mo-lecular Biology, Mayo Clinic Arizona, 13400
 East Shea Boulevard, Scottsdale, AZ 85259.
 E-mail: kappen@mayo.edu. Mayo Clinic Arizona is an Affinnative Action Employer and Educator.

POSTDOCTORAL POSITIONS GENE THERAPY

Positions are available to develop human and mouse artificial chromosomes (HAEC/MAEC) and appropriate viral/non-viral delivery systems using large mammalian herpes viruses for gene therapy, functional genomics, and episomal transgenics. A background in molecular biology is essential and knowledge of virology and/or immunology highly desirable.

Send application to: Jean-Michel H. Vos, D.Sc., Lineberger Comprehensive Cancer Center, CB#7295, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7295.

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POSTDOCTORAL FELLOWSHIPS in molecular genetics of cancer susceptibility. Two postdoctoral fel-lowships are available with three years of funding to work on the maintenance of genomic stability and genetic control of cancer susceptibility. Current projects include anal-ysis of the function of the Bloom's syndrome helicase in nucleic acid synthesis and positional cloning of genes underlying familial cancer predisposition in common cancers such as lymphoma, melanoma, and colon cancers. Applicants should send curriculum vitae and references to: Nathan A. Ellis, Ph.D., Department of Human Ge-netics, Box 110, Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. Au Equal Opportunity / Affirmative Action Employer.

POSTDOCTORAL RESEARCH FELLOW

Position available now to investigate biochemistry of DNA repair enzymes, specifically structure/function relationships of apurinic endonuclease. Theoretical background in enzyme kinetics preferred. Technical background in protein chemistry and/or molecular biology required. Please send curriculum vitae, brief summary of research interests, and three letters of recommendation to: Dr. Phyllis R. Strauss, Department of Biology, Northeastern University, Boston, MA 02115. Northeastern University is an Equal Opportunity/Affirmative Action Title IX Employer.

A POSTDOCTORAL POSITION is available immediately to study cyclin-dependent kinase regulation in animal cells. Prior experience in molecular biology and protein biochemistry is desired. Send curriculum vitae (include e-mail address), research summary, and the names, addresses, and telephone numbers of three refer-ences to: Konstantin Galaktionov, Department of Mo-lecular and Human Genetics, Baylor College of Med-icine, One Baylor Plaza, Houston, TX 77030. E-mail: kgalakt@bcm.ttc.edu; FAX: 713-798-5386. Baylor College of Medicine is an Eard Owertmin (4)

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POSTDOCTORAL FELLOW/RESEARCH AS-SOCIATE POSITION for individual with back-ground/interest in reproductive biology to investigate hypertension in pregnancy. The focus is on cellular and molecular aspects of reproductive renin angiotensin system. Experience in molecular biology techniques is essential. Send curriculum vitae and references to: Dinesh M. Shah, M.D., Department of Reproductive Biology, Case Western Reserve University, 11100 Euclid Ave-nue, Cleveland, OH 44106. FAX: 216-844-7590.

CWRU is an Equal Employment Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available for three years to study molecular biology of cellular uptake of folates and antifolate anticancer drugs such as methotrexate. Experience with molecular techniques and cell cultures is essential. Send curriculum vitae and reference es to: Jeffrey A. Moscow, M.D., Chief, Pediatric Hematology Oncology, Department of Pediatrics, J457 Kentucky Clinic, 740 South Limestone Street, Lexington, KY 40536-0284. FAX: 606-323-3499; o meile mescorrighemes aci pik now e-mail: moscowj@pbmac.nci.nih.gov.

POSITIONS OPEN

NIH POSTDOCTORAL POSITION Linkage, Association, and Cloning of Susceptibility Genes for Schzophrenia

We are performing systemic mapping of schizo-phrenia in a collection of affected sibling pairs. We have recently reported evidence of linkage in chromosome 6q in two independent data sets (Genom-ics, July 1997). Applicants should have a solid foundation in molecular biology and preferably also in human genetics. Please forward curriculum vitae, the names of three references, and a one page description of career goals, research interests to: Pablo V. Gejman, M.D., National Institute to: Fablo V. Gejman, M.D., National Institute of Mental Health, Intramural Research Pro-gram, Clinical Neurogenetics Branch, Unit on Molecular Clinical Investigation, 10 Center Drive MSC 1384, 10-4N320, Bethesda, MD 20892-1384. Telephone: 301-402-2396; FAX: 301-480-2152; e-mail: pgej@helix.nih.

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STAFF ASSOCIATE OR POSTDOCTORAL RESEARCH SCIENTIST MOLECULAR AND CELLULAR IMMUNOLOGY

A position is available immediately in a laboratory of the Department of Neurology, CPMC, investigating autoimmune mechanisms of neurological diseases. Experience with monoclonal antibodies and the molecular biology of immunoglobulin genes desired. Salary commensurate with experience. Send cover letter, curriculum vitae, and names of three references to: Norman Latov, M.D., Ph.D., Professor of Neurology, The Neurological Institute, Columbia-Presbyterian Medical Center, 710 West 168th Street, New York, NY 10032. FAX: 212-305-3986; e-mail: nl2@columbia.edu. Columbia Univerity is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITIONS CORNELL UNIVERSITY MEDICAL COLLEGE MOLECULAR IMMUNOLOGY

Two POSTDOCTORAL POSITIONS are available immediately to study Ig class switching and somatic hy-permutation in human B cells. A Ph.D. or M.D. degree is required. Candidates with background in molecular biology are encouraged to apply. Please send your curriculum vitae, a one page statement of research interest, and names of three references to: Paolo Casali, M.D., Division of Molecular Immunology, Department of Pathology, Room C-312, Cornell University Medical College, 1300 York Avenue, New York, NY 10021. FAX: 212-746-8302.

POSTDOCTORAL POSITION available for a Ph.D. to study control of wild-type and mutant p53 interactions with nuclear chromatin during the cell cycle. A strong background in biochemistry, molecular biology, and tissue culture is required. Please send curriculum vi tae, statement of research experience, and three letters of recommendation to: Dr. Jill Bargonetti, Hunter College, Department of Biological Sciences, 695 Park Avenue, Room 927N, New York, NY 10021. FAX: 212-772-5227; website: http://146.95.14.50/ genectr.html. Équal Opportunity Employer.

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Boffa, L. C., E.M. Carpaneto and V. G. Allfrey. Isolation of active genes containing CAG repeats by DNA strand invasion by a peptide nucleic acid. Proc. Natl. Ac PNA's inhibit gene expression at the DNA level by triplex formation yrunn, H. P. P. NA's inhibit gene expression at the DNA level by triplex formation selection. BioTechniques 1995, 19, 472, 480. (PNA #47)

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Lansdorp. P. PNAs are excellent probes for FISH analysis of repeat sequences energy in telomere Nielsen, P. E. A new target for gene therapeutics. Telomerase. Nature Biotechnology 1996, 14, 480, (PNA #75)

Hybridization PNAs selectively isolate DNA containing repeats Lansdorp, P. M., N. P. Verwoerd, F. M. vi d. Rijke, V. Dragowska, M.-T. Little, R. W. Dirks, A. K. Raap and H. J. Tanke. Heterogeneity in telomere length of human chromosomes. Human Mol. Gen. 1996, 5, 685-691, IPNA #742

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Lobse, J., C. Hui, S. H. S'nnichsen and P. E. Nielsen. Sequence selective DNA cleavage by PNA-NTA conjugates in DNA and RNA Cleavers and Chemotherapy of Cancer and Viral Diseases; B. Meunier, Ed.: Kluwer Academic Publishers: 266; pp 133-141. [PNA #84] Finn, P. J., N. J. Gibso **Description** iton and T. Brown. Synthesis and properties of DNA-PNA Chirmeri **Price**rs. Nucleic Acids Res.

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