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CONSENSUS BUILDER

ChromaTool 1.0 is a software tool that works directly with chromatographic trace files from automated sequencers to assemble sequences and permit manual editing.

The program reads files from popular automated sequencers from Applied Biosystems and LI-COR. It allows a user to easily trim poor-quality data or vector sequences from the ends of a sequencing analysis. Fragments (contigs) are assembled independently of the sequenced strand by examining the forward and reverse complements of all entered sequences for overlapping regions. A tool for ignoring repetitive sequences is also available for assembling fragments of eukaryotic chromosomes.

The assembled sequence and associated chromatograms can be viewed in the Assembly Editor window. Six options for color coding the sequence text are offered to help flag problems. One aspect of the program that causes serious irritation is its failure to automatically synchronize the selection tools in the sequence and chromatogram windows. When one selects a region of sequence, the chromatogram does not automatically track to that position. Instead, one must click on the Chromatogram option in the View pull-down menu, or type a keyboard shortcut to get the corresponding chromatogram for the selected sequence.

ChromaTool uses a consensus method to detect ambiguity between chromatograms. But this will yield errors if, for example, two reads on one strand return identical calls from a poorly resolved region of a gel and an unambiguous read is overruled. Preferably, the quality of the data should be given priority by the program rather than a "majority rule" approach.

A "sequence editor" facilitates editing of assembled sequences as well as referencing and annotating features. A desirable feature in ChromaTool is a simple line-representation of the six-frame translations, which can be amazingly useful when monitoring the effects of sequence editing in a cDNA or bacterial gene. Files can be exported in a variety of formats including FASTA, GenBank, EMBL, RTF, and even HTML. HTML would be particularly useful for sequencing facilities wanting to export sequence files to a Web site or a laboratory wishing to share data with colleagues.

Despite its shortcomings, the program is relatively easy to master and the online documentation is satisfactory. ChromaTool may be the program of choice for those already familiar and comfortable with BioTools's other packages: GeneTool and PepTool.

—Peter J. Lammers

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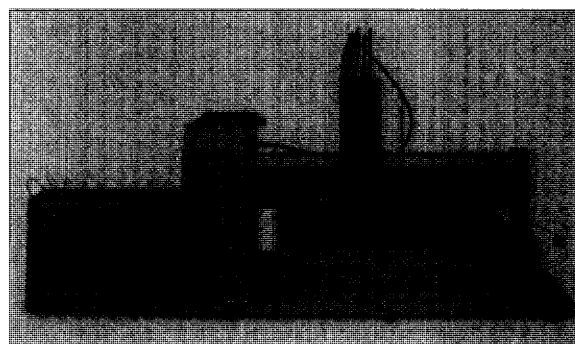
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CONTINUED ON PAGE 520

unique message fragmentation protocol enables analysis of virtually any eukaryotic gene. The protocol involves isolation of actively transcribing genes, isolating a single fragment per mRNA molecule, and conducting specific combinatorial oligonucleotide PCR on the fragments. Uniform PCR conditions and a single set of reagents allow easy and rapid analysis of the entire genome. The GS320 is currently available for human, mouse, and rat species. It requires only standard molecular biology laboratory equipment and a fluorescent imager.

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fied primers. The RapXtract 384 kit can be used with most automated or semi-automated sample processing systems with 8-, 96-, or 384-tip pipetting heads and eliminates the cost and time of manual intervention necessary with most other methods.

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cations including DNA sequencing and transformation. The PCR Cleanup Kit allows simple, quick cleanup of PCR products through the use of 96-well Multiscreen plates that deliver high purity and high recovery. The PCR cleanup protocol requires no lengthy washing steps and no organic solvents.

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LITERATURE

Promega Life Sciences Catalog 2001 provides a source for integrated solutions in genomics, proteomics, and cellular analysis. In genomics, new products include READIT, which is a geno-

typing product based on a new patent, and PCR (polymerase chain reaction) Master Mix, which combines the ease of pre-mixed solutions with the dependability of *Taq* DNA polymerase to make routine PCR fast and accurate. Products in proteomics include a fluorescent green translation labeling system to bridge the gap between genomics and proteomics and an expression system that offers the convenience of a 96-well configuration.

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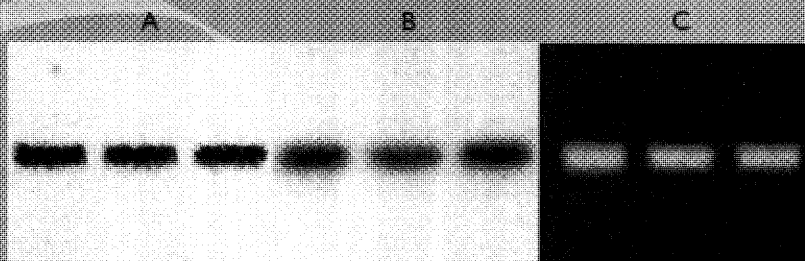
Highly Precise DNA Sizing on the CEQ 2000 Fragment Analysis System and Analysis of 26 Weber Panel Simple Tandem Repeat Polymorphisms Using the CEQ 2000 Fragment Analysis System are application briefs on uses of the CEQ 2000 DNA Analysis System for fully automated DNA sequencing and fragment analysis. This new system makes use of capillary electrophoresis technology with a linear polyacrylamide gel to increase read lengths while shortening run times. Cycle time per capillary has been reduced to 100 min, reading out up to 700 bases.

Newly offered instrumentation, apparatus, and laboratory materials of interest to researchers in all disciplines in academic, industrial, and government organizations are featured in this space. Emphasis is given to purpose, chief characteristics, and availability of products and materials. Endorsement by *Science* or AAAS of any products or materials mentioned is not implied. Additional information may be obtained from the manufacturers or suppliers named by circling the appropriate number on the Reader Service Card and placing it in a mailbox. U.S. postage is free.

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Hybridization of rat total RNA (5 µg/lane). Detection of α_1 subunit of skeletal muscle DHP receptor (A) and hypothalamic GHRH (B) using 32 P probe. Non-radioactive detection of GAPDH (C).

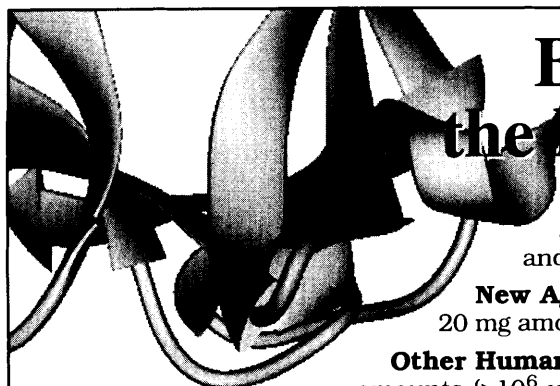
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Investigators wishing to obtain any of these materials should visit the BRB Repository Web site at:
<http://www.ncifcrf.gov/brb/preclin/index.html>

For questions contact:




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The 2001 competition will focus on four research topics within the biological, physical, social and cultural sciences. The research topics are of critical importance to the management of the National Park System and selected by the National Park Service. Students applying for 2001 scholarships must submit dissertation proposals that address these topics.

Visit <http://www.nps.gov/socialscience/waso/acts.htm> for an application and guidelines, or contact Dr. Gary Machlis, Program Coordinator, Canon National Parks Science Scholars Program, Natural Resource Stewardship and Science, National Park Service, 1849 C Street, NW (MIB 3127), Washington, DC 20240, gmachlis@uidaho.edu.

Applications are due 1 June 2001. Winners will be announced August 2001.



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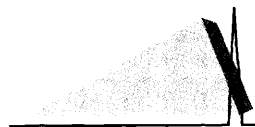
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Legal Issues and Strategies for Responding to Allegations of Research Misconduct

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Join your colleagues at a one-and-a-half day conference on legal issues and strategies in responding to allegations of research misconduct.

Changes in regulatory policy and recent litigation regarding research misconduct have complicated the legal environment for the federal government, colleges and universities. This conference will help improve understanding of policies, procedures and methods for responding to allegations of research misconduct and of the rights and responsibilities of all parties involved.

Conference topics include the regulatory framework and interactive relationship between government and institutional policies; legal issues embedded in the inquiry, the investigation of research misconduct and appeals process; and issues surrounding litigation.

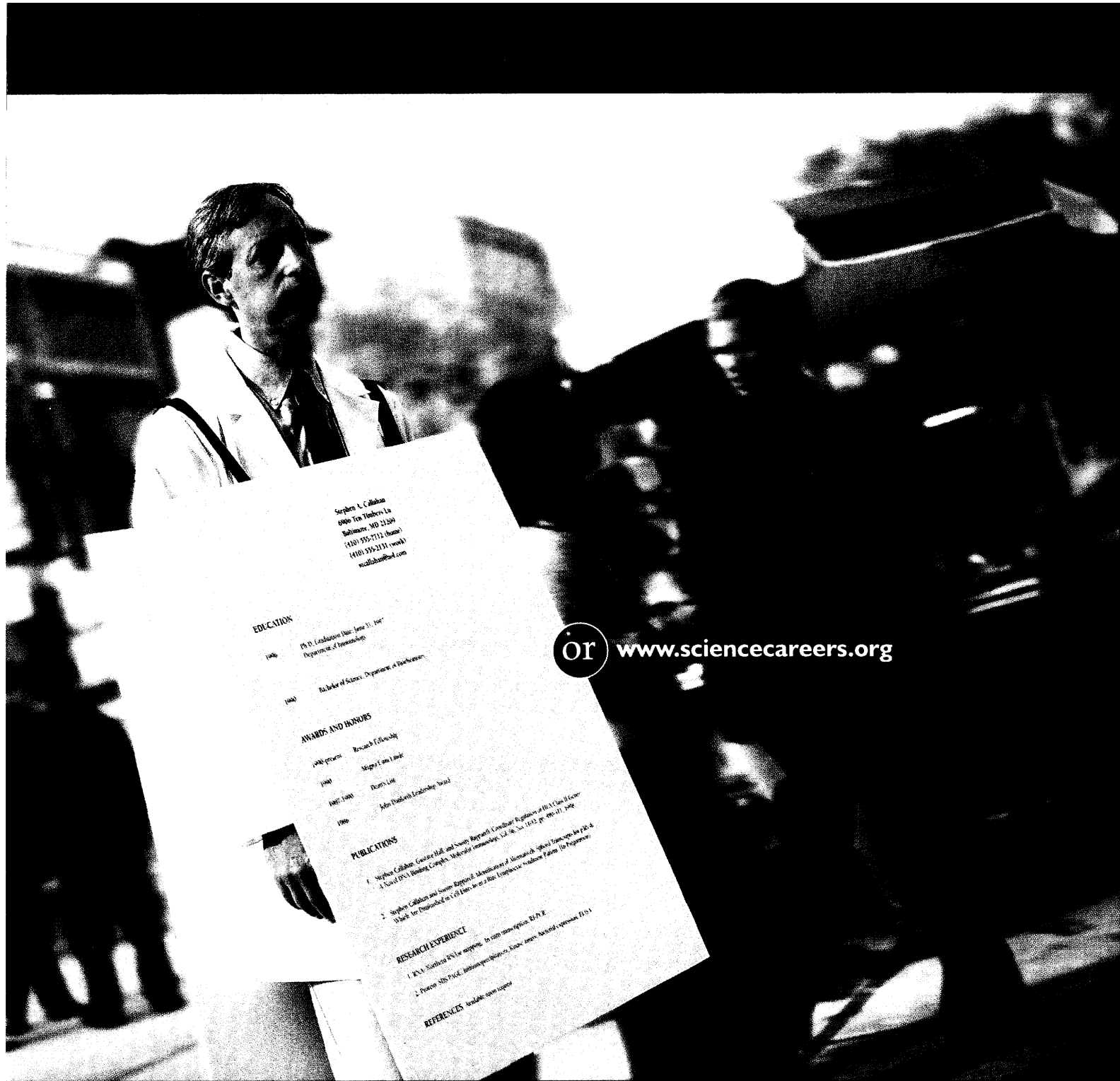
The conference is intended for an audience of federal officials, university and medical school administrators and counsel, researchers, private attorneys, law professors and others interested in examining key legal issues associated with allegations of research misconduct and identifying strategies for effectively responding.

Registration is limited. Registration and other information can be found on the WWW at:

<http://www.aaas.org/spp/legal>
or contact Rachel Gray, AAAS, 1200 New York Ave., NW, Washington, DC 20005, Tel: 202-326-7016, Fax: 202-289-4950 or E-mail: rgray@aaas.org.

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EDUCATION

- 1986 Ph.D. Entomology (Date: June 31, 1987)
Department of Entomology
1980 Bachelor of Science, Department of Biochemistry

AWARDS AND HONORS

- 1986 Research Fellowship
1986 Major Life Award
1986 Distinguished Life
1986 John D. Rockefeller Foundation Award

PUBLICATIONS

1. Stephen Calabrese, Christine Hall, and Nancy Reynolds. *Entomological Research on the Role of the Brain in the Control of Insect Behavior*. Academic Press, 1987. 16, pp. 1-112. pp. 1-112, 1987.
2. Stephen Calabrese and Nancy Reynolds. *Entomological Research on the Role of the Brain in the Control of Insect Behavior*. Academic Press, 1987. 16, pp. 1-112. pp. 1-112, 1987.

RESEARCH EXPERIENCE

1. P.V. Research on the response to high-intensity light.
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Careers and Events in Drug Discovery

The process of drug discovery no longer belongs to pharmacologists alone. Ethical drug companies now seek scientists qualified in disciplines ranging from molecular biology to information technology.

Drug discovery used to belong only to chemists, pharmacologists, and their laboratory managers. They formed a pharma elite that applied well-tried methods to the creation of new drugs and did so with a remarkable record of success. Now that has all changed. In recent years successful drug discovery programs have evolved from the traditional approach to sophisticated programs that use leading-edge technologies in computational and medicinal chemistry, biological screening, bioinformatics, cell signaling, and other disciplines. Scientists from several diverse backgrounds, including physical science and engineering, now find challenging careers in pharmaceutical and biotechnology companies involved in the drug discovery process.

Those careers will broaden in scope as pharmaceutical and biotechnology companies start to apply the results of projects within the past year that have successfully sequenced the genomes of humans and other organisms. Nobody expects the

genome work to have an immediate impact because drug discovery involves a complex set of interlinked processes. But by giving researchers the opportunity to investigate the

internships in the pharmaceutical industry. Students should also take courses in disciplines other than their own to help them develop their intellectual curiosity and their ability to under-

FILLING THE DRUG PIPELINE

full functions of genes, the successful sequencing efforts have set a fresh direction for the search for new pharmaceuticals.

Companies involved in drug discovery generally expect their recruits, whatever their scientific backgrounds, to have practical experience in research and to possess the skills necessary for working in multidisciplinary environments. They advise young scientists to take full advantage of undergraduate research projects and

stand the viewpoints of colleagues in broad-based scientific investigations.

Here we discuss the wide variety of opportunities in drug discovery with representatives of half a dozen companies in the pharmaceutical industry. We also preview Drug Discovery Technology 2001, a conference on the topic that will be held in Boston in mid-August.

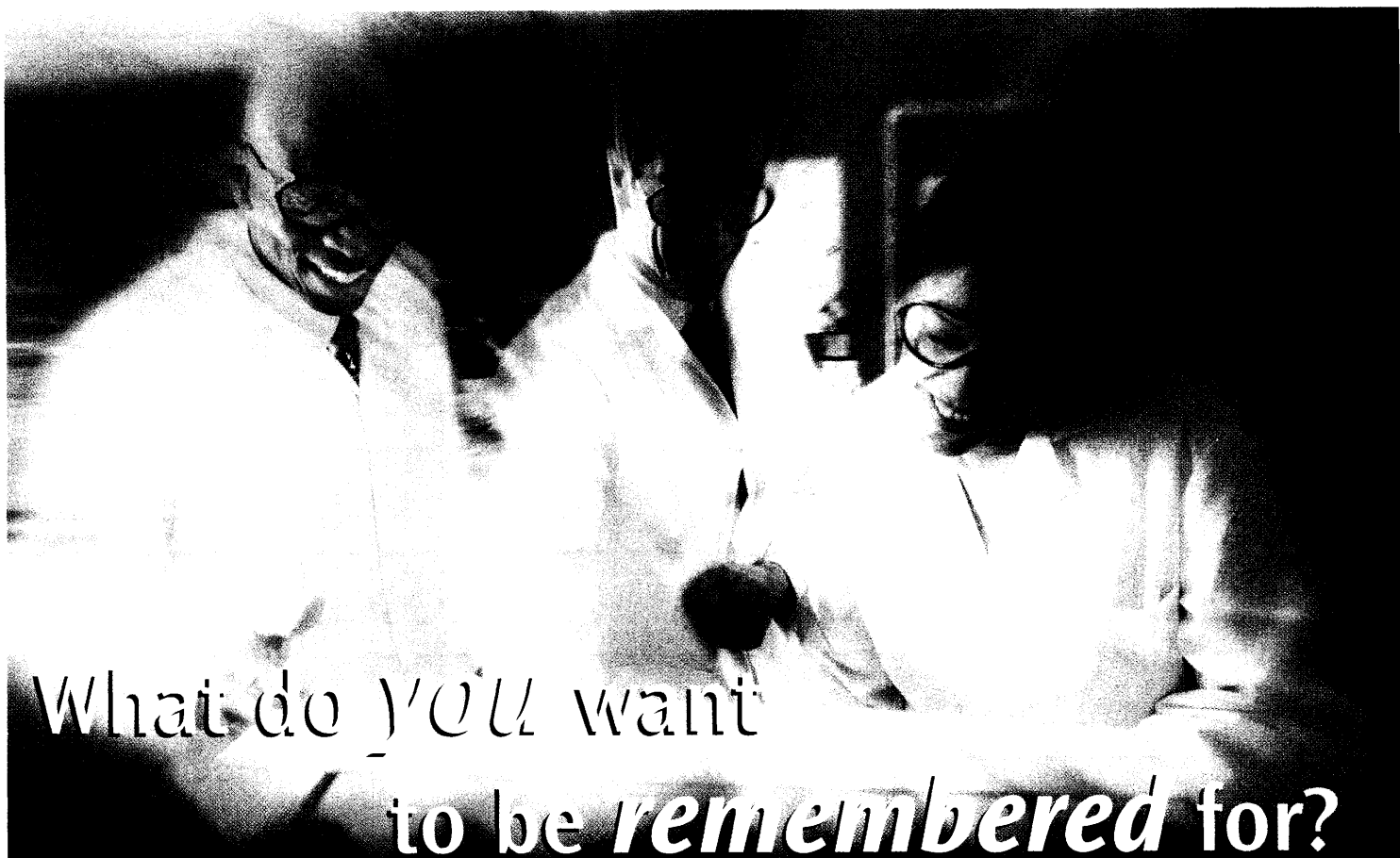
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A former science editor of Newsweek, Peter Gwynne writes about science and technology from his base on Cape Cod, Massachusetts, U.S.A.

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Senior Scientist (DIA-2356)

BS or MS in Biology. 5+ years in conducting animal studies/surgery.

Sr. Research/Research Scientist - High Throughput Screening (DIA-2074)

MS degree in Biochemistry, Biology, Molecular Biology or related field with a minimum of 2 years industry experience required. Familiarity with cell-based and biochemical assay development is also required. Experience in cell imaging based High Content Screening method and fluorescence polarization detection method and knowledge of enzyme mechanism is desired.

Molecular Biologist - Respiratory/Rheumatoid Arthritis (DIA-2289)

BS/MS and 5 years molecular biology experience with Respiratory R/A MS IVD related work handling human tissue/sampling for human cataloguing required. Familiarity with Taqman, Northern, RNA purification, plasmid purification, as well as Agilent Bioanalyzer also required. Database (GCG, DNASTar, Gene Spring) experience desired.

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**Associate Research Biologist -
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**Associate Research Chemist -
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**Associate Research Chemist -
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BS degree with emphasis on Biology or Chemistry. Minimum 3-5 years experience in Drug Safety Computer knowledge in data base management and PC applications. Strong organizational skills and ability to handle multiple priorities.

Associate Scientist/Assistant Scientist (DIA-1915)

BS/MS or equivalent in Immunology, Cell Biology or Hematology. Experience in cellular immunoassays, general cell culture techniques, and basics in molecular biology. Special expertise in T-cell or dendritic cell research programs would be a plus. Experience in immunochemistry/biochemistry/hematology would be advantageous. Use of computers with standard software is a pre-requisite. Candidates should be excellent team-players, nevertheless a high level of personal responsibility for the research programs involved is expected.

Associate Scientist/Assistant Scientist (DIA-1916)

BS/MS or equivalent in Immunology, Cell Biology or Hematology. Broadly-based expertise in cytofluorometry. Expertise in related technologies would be advantageous. Experience in cellular immunoassays, general cell culture techniques, and basics in molecular biology. Experience in immunochemistry/biochemistry/hematology. Use of computers with standard software is a pre-requisite. Candidates should be excellent team-players, nevertheless a high level of personal responsibility for the research programs involved is expected.

Sr. Scientist (DIA-1953)

Advanced technical degree (Ph.D. or equivalent) Molecular Biologist/Biochemist/Cell Biologist with a proven record in the investigation of GPCR's in leukocyte biology. Candidates should be good communicators who wish to contribute to the success of the team within a stimulating drug discovery environment.

Sr. Scientist (DIA-1955)

PhD with at least 5 years post doctoral experience and preferably 3 years experience in relevant research environment. Recognized as an expert in the field of biochemistry and cell biology of GPCR's. Preferably an understanding of the pathophysiology of inflammatory diseases. Proven track record in the development, implementation and use of biochemical and cell assays. Able to manage and motivate a team of 6-8 scientists.

Bioanalyst (DIA-2037)

Advanced technical degree Ph.D. or equivalent. Experience with PERL, Unix, HTML, sequence analysis tools, and sequence databases is required. The ideal candidate has additional experience in the analysis of expression data. Strong communications skills are required. Knowledge of asthma, rheumatoid arthritis, and/or inflammation is desirable.

Bioanalytical Scientists (DIA-2248)

Advanced technical degree Ph.D. or equivalent in chemistry, biochemistry, pharmaceuticals, molecular biology or related fields is required. A minimum of 5 years relevant industrial experience and in leading ad hoc technical groups. Must be competent in a wide range of areas including analytical technologies required for small molecules, macromolecules including proteins, immunologic based analytical technologies. HPLC, LC/MS, LC/NMR, robotics as well as integrated database and reporting systems.

Pharmacokineticist (DIA-2355)

Advanced technical degree Ph.D. or equivalent in pharmacokinetics, pharmacology or related fields is required. A minimum of 5 years relevant industrial experience. Must be competent in a wide range technical areas including: clinical pharmacokinetics, biopharmaceutics, population pharmacokinetic modeling, drug interaction studies; special population pharmacokinetics; clinical pharmacology and pharmacogenomics.

Research Fellow (DIA-2533)

Ph.D. in chemistry, biochemistry or pharmacology with 3-10 years post-doctoral experience with providing DMPK support to lead generation/optimization programs in the pharmaceutical industry. The ideal candidate must be a good team-player who can handle multiple priorities and possesses excellent verbal and written communication skills. Preference will be given to candidates with strong background in rapid metabolites identification from in vitro systems, modern chromatography and mass spectrometry skills, enzymology, medicinal chemistry, and pharmacology. Experience in the CNS and respiratory therapeutic areas or supervision of BS/MS level scientists is desirable but not required.

Scientist (DIA-2534)

Ph.D. in chemistry, biochemistry or pharmacology with 1-5 years post-doctoral experience in the study of transporters in the drug absorption and elimination processes. The ideal candidate must be a good team-player who can handle multiple priorities and possesses excellent verbal and written communication skills. Experience with molecular biology techniques in expressing specific transporters into cell lines or with in vitro models to study the transport of drugs across the blood brain barrier is highly desirable.

Associate Scientist (DIA-2545)

BS or MS in biology, biochemistry or chemistry with 0-3 years relevant experience. Experience in the various aspects of cell culture involving primary or established cell lines, or molecular biology techniques are highly desirable. The ideal candidate must be a good team player who possesses excellent verbal and written communication skills.

Post Doctoral - Automated Screening (DIA-2453)

We are looking for an intrepid post doctoral scientist to develop completely new assay formats for miniaturized cellular screening. The scientist will work on a broad variety of related issues from instrumentation design to cell biology in the course of putting together a working system. Our ideal candidate would be a cell biologist comfortable with instrumentation and miniaturization or an engineer or physicist with some cellular experience. Some knowledge of physical properties of chemicals is needed. Knowledge of optics, microlithography, immune system cell biology, and spectroscopy would be a plus.

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- **Medicine**
- **Pharmaceutical Science**
- **Pharmacology**
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Careers and Events in Drug Discovery

INDIANAPOLIS, Indiana: In 1999, Eli Lilly and Company announced a 10-year, \$1 billion plan to expand its headquarters that included hiring 7,500 new employees, most of them scientists. The company has already filled more than 2,000 of the positions and continues to seek fresh scientific talent. "We have needs in our entire pipeline from synthetic organic chemists to scientists in our medicinal chemistry group to pharmacologists and cell biologists on through to pharmacokineticists and bioanalytical chemists," says Celia Whitesitt, Lilly's manager for U.S. recruiting and staffing.

Laboratory experience is an important factor in candidates' CVs. "We like applicants with B.S. degrees to have experience with research projects," says Whitesitt. "Among candidates with Ph.D.s we look for post-doctoral experience."

Lilly also expects evidence of skills in communication and teamwork. Those have particular importance in drug disposition groups that require researchers to interact with scientists in several other teams. Company recruiters seek evidence of those skills in 50-minute seminars and one-on-one interviews that Lilly requires candidates to undertake as part of the recruiting process. "We require all our scientists to interview on-site," Whitesitt explains. "The interviews and seminars determine whether a candidate meets our expectations."

Those expectations include the ability to fit into teams of high achievers. "We have excellent scientists here; that is part of our drawing card," says Whitesitt.

Certainly the company attracts scientists from top-notch universities around the country. One reason is the local ambience. "We think that Indianapolis is an excellent city to live in," Whitesitt says. "The cost of living is very reasonable — less than the national average. The area is very family oriented, but it has cultural diversity for a population of singles."

What steps should young scientists take if they are interested in working for Lilly? "Make certain of the skill sets we need. Go to our website and look at the requirements," Whitesitt advises. "In general, include as much actual research in your education as you can, from the undergraduate level on up. While we look for depth of technical expertise, we also look at practical experience."



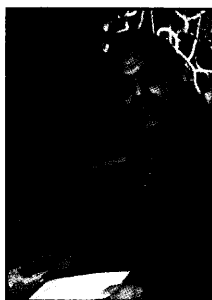
KELVIN LAM

CAMBRIDGE, Massachusetts: The Pfizer Discovery Technology Center aims to identify and evaluate useful screening technologies such as microfluidics and to implement the most promising technologies in the company's broad drug discovery work. "We also help to identify new lead compounds by establishing multiple high throughput screens in parallel," says Kelvin Lam, senior research investigator for screening technology. "We're speeding along the process of drug discovery."

Achieving those goals requires individuals trained in several disciplines. In addition to life scientists the center seeks to hire physical scientists, information scientists, and mechanical and electrical engineers. "In the past five years physicists have been really invading the life science territory, not only in academic organizations but also in companies," Lam says. Recruits should "enjoy keeping current with new developments in pharmaceuticals and in science at large. They should initiate collaborations with colleagues from other institutions, handle several duties concurrently with careful attention to detail, and have effective problem-solving skills, particularly in identifying options and resources."

A feel for multidisciplinary research is critical. "I'm looking for quick learners who can pick up the ideas of another discipline fast," says Lam, who is himself a biochemist. "Collegiality in personal interactions is also very important. Meeting people from disciplines outside one's own is an excellent learning opportunity. For example, one colleague in my group is a card-carrying physicist. Working with him is really a treat for me. Questions that he asks in group meetings force me to think outside the box. In corporate culture it's important not only to bring new ideas to the group but also to listen to others' ideas."

Lam advises young scientists who want to work in drug discovery to develop that type of curiosity. "Take an active role in sharing information, knowledge, and ideas," he suggests. "Keep lines of communication open with your reports, colleagues, and supervisors. Lead by example. Take the initiative in solving problems. And be flexible and patient."



ISMAIL KOLA

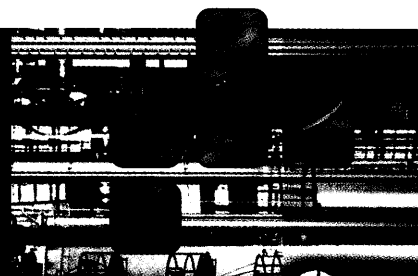
SKOKIE, Illinois: Pharmacia needs specialists in genetics, bioinformatics, and chemistry, particularly structural and medicinal chemistry. "We have openings for people who study the functions of genes in model organisms," says Ismail Kola, Pharmacia's vice president of research and global head of genomics and pharmacogenomics. "We're also looking for M.D.-Ph.D.s who can probe the use of genetics in drug development via pharmacogenomics and biomarkers."

In general, Kola continues, "Our need for scientists spans the entire spectrum: B.S., M.S., Ph.D., and people with experience in industry. Among M.D.-Ph.D.s we're very interested in people with genetics experience, including population, statistical, and functional genetics. We also want people who are excellent at clinical phenotyping so that the readouts we get in the lab are accurate."

In addition to scientific skills, the company looks for individuals who can work comfortably in multidisciplinary environments. "The interfaces become very critical, so you need cross-functional alignments and collaborations," says Kola. "We live this at Pharmacia. We have an integrated approach in which global business management and global R&D work very closely from the beginning to the end of any project. We are looking for great intellects who have the ability to influence and interact with their peers across a wide spectrum of disciplines."

As enticements for well-trained scientists, the company points to excellent resources and intellectual satisfaction. "People want to come to industry not only because it pays better than academe but also because they realize that industry is very resource-competent," Kola says. "We were one of the earliest partners of Celera, so our scientists had very early access to its database. Last year saw the approval of our antibacte-

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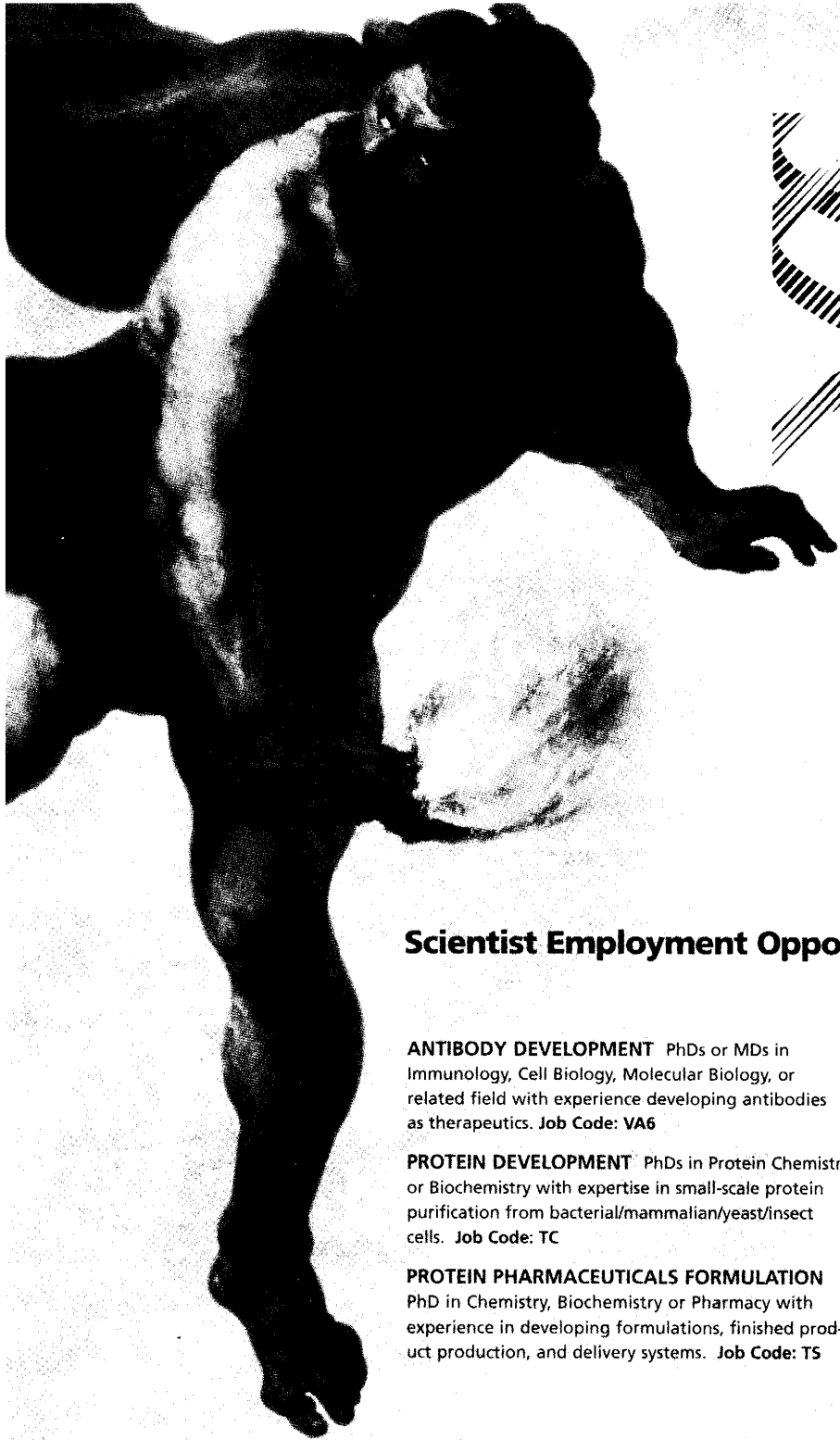
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PROTEIN PHARMACEUTICALS FORMULATION PhD in Chemistry, Biochemistry or Pharmacy with experience in developing formulations, finished product production, and delivery systems. **Job Code: TS**

HIGH-THROUGHPUT BIOLOGICAL SCREENING Chemistry/Biochemistry PhDs with experience conducting peptide synthesis and applying analytical techniques to lead compounds. **Job Code: IS**

ANALYTICAL SEPARATION METHODS Biochemistry/Chemistry PhDs with proven skills in chromatographic, electrophoretic and other analytical separation techniques for recombinant proteins. **Job Code: FK**

MOLECULAR BIOLOGY Molecular Biology MDs or PhDs with postdoctoral experience and 2 years experience in growth factor/cytokine biology, signal transduction or high-throughput genomics applications. **Job Code: SR1**

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Job Code: PAD/SCJ/SRI/628HS

BS/MS LC-MS/MS Research Associate

You will become part of the Exploratory Drug Discovery MS Group in the Department of Drug Metabolism responsible for bioanalytical assays and metabolite utilizing LC-MS/MS. Responsibilities include operation of one LC-MS/MS system for discovery PK quantitative assays. A BS in Chemistry and 5+ years of experience (or MS in Chemistry with 3+ years experience) in the operation and use of LC-MS and LC-MS/MS systems (either Finnigan TSQ/TSQ 7000 LC-MS/MS or Sciex 365/3000 LC-MS/MS system) are required. Experience on a Micromass Ultima system is a plus.

Job Code: PAD/SCJ/SRI/1084HS

BS/MS Research Associate - *In Vitro* Drug Metabolism

You will be involved with all aspects of *in vitro* metabolism studies, including incubations of development compounds with liver (tissues and microsomes), freshly isolated and/or cyro-preserved hepatocytes, everted intestine incubations and other extrahepatic tissues. Responsibilities also include assisting in the isolation and identification of metabolites. A BS or MS in Biochemistry, Chemistry, Molecular Biology or related life sciences discipline and 2-4 (0-2 with MS) years of relevant experience are required. Experience should include work in the areas of *in vitro* metabolism, HPLC analysis, extraction and enzyme incubation.

Job Code: PAD/SCJ/SRI/1082HS

HIGH-THROUGHPUT SCREENING

BS/MS Research Associate - Cell Culture Lab

You will be responsible for a cell culture lab and all phases of cell-line storage, maintenance, expansion and production that will provide the necessary mammalian cells for genomic-based and other cell-based assays generated for High-Throughput Screening. A BS/MS in Biological Sciences/Biochemistry or related discipline and 3-5 years of experience in a major cell culture facility providing mammalian cell culture and cell-based assays are required. Experience in growing and categorizing recombinant cell lines is key. Familiarity with automated equipment and processes as well as experience with the Mark 4 Cellmate or other automated cell production facility are highly desirable.

Job Code: PAD/SCJ/SRI/991HS

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You will direct a group of biologists, informatics and automation specialists, taking overall responsibility for centralized screening and compound management operations. This involves the development, operation and maintenance of existing HTS and UHTS systems and the integration of new technologies as necessary. The department is also responsible for the validation and automation of screens, data analysis, and presentation of appropriate reports. We require a PhD in Biology or Chemistry with 8+ years postdoctoral experience, including at least 3 years managing high-throughput screening and/or drug discovery in a major pharmaceutical or biotechnology company.

DIRECTOR, DISCOVERY INFORMATICS

In this role, you will direct the development and implementation of our corporate informatics initiatives, including establishing relational databases for biological, chemical and screening information and acquiring or developing software tools to manage, present and interpret drug discovery data. This will involve supervising an informatics group consisting of programmers, chemists and biologists. We require a degree in Computational Chemistry (PhD preferred) and demonstrated expertise developing informatics processes, including 10 years progressive experience in informatics-related areas (including chemistry and screening assay/gene databases) and 3-5 years management experience.

GROUP LEADER, RECEPTORS

Lead a group of scientists and technical staff in discovery for GPCR targets, taking responsibility for assay development for partnered and internal projects, expanding our library of GPCR assays and developing technical improvements in our GPCR assay technology. In addition, you will manage partnered discovery programs, providing documentation of workplans and project reports as needed. We require a PhD in Biomedical Sciences and 5+ years post-doctoral experience. Experience with orphan GPCRs and in leading drug discovery projects in a pharmaceutical or biotechnology industry setting is preferred.

PROJECT MANAGER III

Applying your solid project management skills, you will coordinate and maintain records for external partner research collaborations and internal drug discovery work, including project schedules, databases, correspondence, and research supplies. We require a PhD in Biological Sciences with senior-level (4+ years) experience in project/product management in a biotech or pharmaceutical company. You must also display consistent and progressive career growth along a scientific/project management ladder and an interest in working at the interface of science and business issues. Familiarity with databases and information management is key.

SR. COMPUTATIONAL SCIENTIST, CHEMISTRY

You will apply modern data-mining and computational tools to large data sets generated by screening of ion channel, enzyme and receptor targets, and in vitro ADME-tox. You will evaluate hit compounds for their suitability as lead candidates and prioritize active compounds for medicinal chemistry optimization. We require a PhD in Chemistry, Pharmacology, or a related field, 2-6 years experience, preferably in the drug discovery field, in-depth knowledge of computational chemistry and biology and the ability to develop data mining tools and process very large activity data sets. Knowledge of computational techniques and software applications including QSAR, conformational analysis of small molecules, and data and knowledge-based mining is critical.

GROUP LEADER & SCIENTIST III, ION CHANNELS

Group Leader

We seek an energetic, creative and effective person to lead drug discovery efforts in ion channels and transporters. Using our world-leading proprietary assay technologies, your team will rapidly identify and characterize new leads for a variety of targets. We require a PhD in Biological or Physical Sciences, 5+ years supervisory experience, preferably in an industrial setting, expertise in biophysics and pharmacology and demonstrated success leading drug discovery projects for ion transport targets.

Scientist I / II

We seek a creative, self-motivated ion channel biologist with a broad understanding of the roles of ion channels in disease and a desire to work in a multidisciplinary environment. We require a PhD and significant experience in 2 or more of the following areas: biophysics, ion transport biology, electrophysiology, automation, Cystic Fibrosis, and optical detection methods.

DIRECTOR, COMPOUND MANAGEMENT

We'll call on you to plan, implement and manage the equipment and personnel needed to support compound management needs for the Aurora HTS and UHTS/AMCS Systems. Working closely with the Chemistry group, you will develop future compound acquisition and library development strategies, and participate in evaluating biological screening and data, compound purity and SAR data analysis for various screening projects. We require a PhD (Chemistry or related field is preferred) with 5+ years relevant industry experience and 2+ years management experience. Extensive knowledge of automated liquid handling systems and compound information tracking systems, LIMS, and the routine use of database to store and retrieve information is essential. Also required is 5+ years experience in compound management at a large pharmaceutical or biotechnology company with an active screening program utilizing large screening libraries of >100,000 compounds.

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- QA Training Manager

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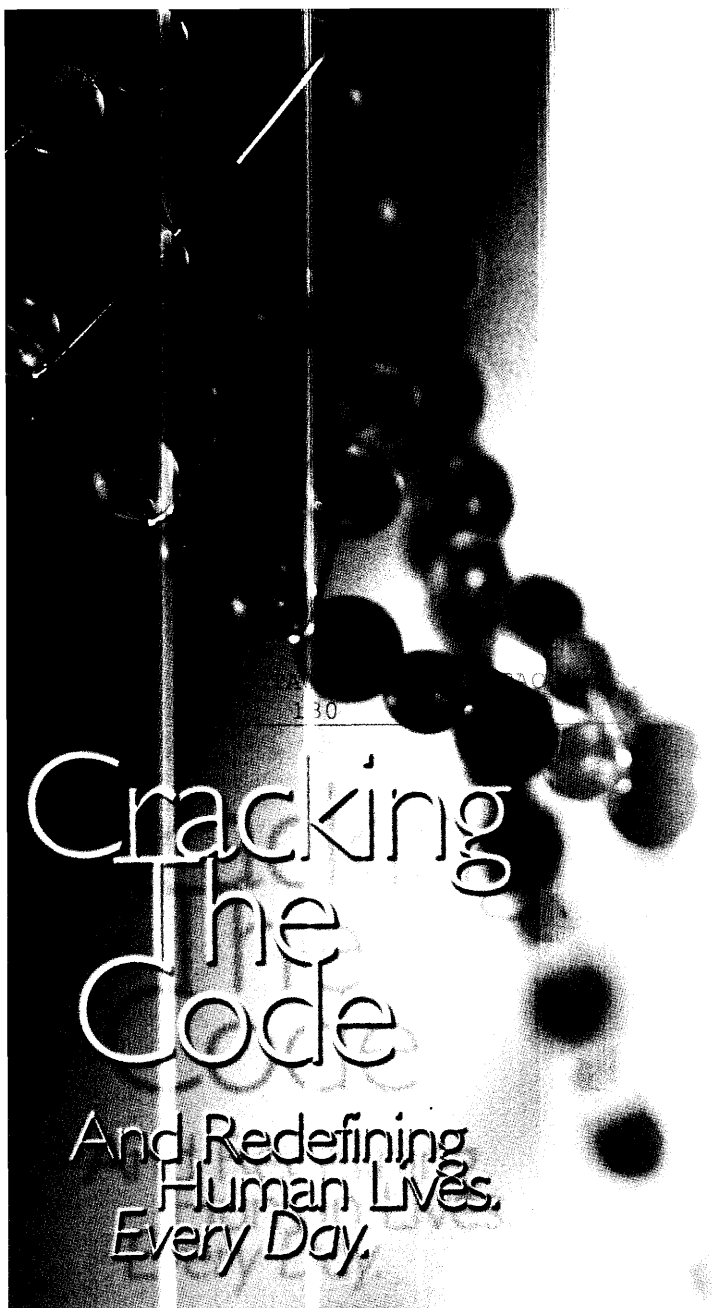
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- Biological mass spectrometry (ESI, MALDI, TOF-TOF)
- Immunological assay development
- Pathology
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Careers and Events in Drug Discovery

Celebrating the Entirety of the Drug Discovery Experience

Drug Discovery Technology 2001, the 6th Annual World Congress organized by IBC USA Conferences from August 13 to 17 at Boston's World Trade Center and Seaport Hotel, will cover the entirety of the drug discovery experience. A scientific symposium, plenary sessions, tutorials, short courses and workshops, and an exhibit hall with more than 300 booths will showcase technologies, instrumentation, products, and services that now drive the field. IBC expects more than 4,000 people to attend the event.

The show will focus in large measure on the integrated and interdisciplinary approaches that R&D teams in pharmaceutical and biotechnology companies and nonindustrial organizations now apply to accelerate drug discovery. Major topics of the show include target validation; *in silico* drug discovery; automation and robotics; assay development and screening; miniaturization and chip-based technologies; information and data management; lead discovery and optimization; integrating chemical, biological, and genomic data; case histories of successful drugs; pre-clinical ADME and toxicology; the discovery and development interface; research tool intellectual property; chemistry-based approaches; deal making; technology transfer; and case studies of mergers and alliances.

The congress will also highlight the importance to the pharmaceutical industry of partnering and technology transfer. The vehicles: a one-day summit on "Creative Partnering and Deal-Making in Drug Discovery" and a half-day working group on "Negotiating and Valuing Drug Discovery Technology Deals."

In conjunction with the event, *Science* will host a one-day Career Fair. It will take place between 10 a.m. and 3 p.m. on August 13 at the Seaport Hotel.

"With the race for the genome behind us, we will start to see many of the companies and much of the public discourse on how we use the genome to make better medicines," explains Julian Adams, senior vice president of drug discovery for Millennium Pharmaceuticals, Inc. The event's keynote speakers will advance that theme. Eric Lander, director of the Whitehead Institute/MIT Center for Genome Research, will discuss "Putting the Human Genome to Work." Mark Levin, Millennium's chairman and CEO, will examine "Personalized Medicine — The Future of the Biopharmaceutical Industry." And George Milne, executive vice president of Pfizer Global Research and Development, will focus on "Drug Discovery — Realizing the Potential."

The diversity of the keynote speakers "provides an excellent example of what this type of meeting offers," says Kelvin Lam, senior research investigator for screening technology in the Pfizer Discovery Technology Center. "At meetings like this I try to attend talks beyond my domain. For me the conference is a learning opportunity outside my discipline. I also like to meet with vendors and with scientists from different universities and companies."

IBC's 6th Annual World Congress DRUG DISCOVERY TECHNOLOGY 2001

August 12-17, 2001 • Boston, MA
The World Trade Center and Seaport Hotel

www.drugdisc.com



You can obtain more information at the event's web page, www.drugdisc.com.

Alternatively, contact Michael Keenan at IBC USA Conferences, 1 Research Drive, Suite 400A, P.O. Box 5195, Westborough, MA 01581, telephone 508-616-5550, ext. 288.

rial drug Zyvox, the first new type of antibiotic to be introduced in 35 years. Our scientists also used genomics and bioinformatics to discover the beta secretase gene for Alzheimer's disease. That produced several excellent papers. Scientists in industry can get scientific excellence and competitive pay and also do good for humanity."

Kola has this advice for young scientists in academic training who want to explore careers in pharma: "Pick up additional skills through courses in business, management, and interaction with people. And talk to people in the industry, and particularly those who have lived on both sides of the spectrum, to get a realistic view of the challenges and opportunities that industry will present."

THOUSAND OAKS, California: "We are especially interested in building our strength in small-molecule drug discovery and have focused particular attention on cancer therapeutics, immunology, and inflammation," says Sherry Dolkart, senior staffing manager at Amgen, Inc. "We are looking for innovative people who have strong backgrounds in any one of several disciplines including molecular biology, cell biology, biochemistry, and synthetic chemistry."

Amgen prides itself on being the world's largest independent biotechnology company. It also aspires to become "the best human therapeutics company." To achieve that goal, it looks for employees who sparkle with enthusiasm for their scientific work.

CONTINUED ➞

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SCIENTISTS – ARTHRITIS & INFLAMMATION GENOMICS

Ad Code #01-2531

Selected candidates will drive and execute the goals/milestones for the A&I Genomics projects with respect to current and projected project needs and will facilitate the interface with Biotechnology and A&I team members. These individuals must be productive at the bench and will actively participate in the A&I project team meetings. Requirements include a BS/MS degree, PhD or MD, strong scientific background as evidenced by a number of high quality peer-reviewed publications as well as proven experience with cell and/or animal models of osteoarthritis, pain or rheumatoid arthritis. Experience in one or more Genomics sciences and their application to target identification and validation in the discovery research environment are essential. Any human genetics experience is a plus. To excel in this important role, you must have outstanding interpersonal/communication skills combined with the drive to actively contribute to science and problem solving. **Respond to:** <http://respond.webhire.com/job/id?479-r2531-J1>

Kalamazoo, Michigan opportunities:

GENOMICS SCIENTIST – VECTOR DESIGN

Ad Code #00-1615

Selected candidate will design/produce targeting vectors from genomic DNA and drug selection cassettes for gene targeting experiments in mouse embryonic stem cells as well as design constructs for expression in conventional transgenic animal models. This position, which offers a great career path, requires an M.D. or Ph.D. in Molecular Biology or closely related discipline; knowledge of conventional and inducible gene knockout strategies; strong molecular biology skills, including DNA cloning and isolation of DNA from bacterial preparations, and analysis of gene structure in genomic DNA. Background in mouse genetics, including knowledge of 129/Sv mouse strains and ES cells, knowledge of mouse strains commonly used in transgenic research, and the ability to determine use of genetically engineered mouse models, highly desirable.

Respond to: <http://respond.webhire.com/job/id?479-r1615-J2>

GENOMICS ASSOCIATE – TRANSGENIC SPECIALIST

Ad Code #00-1613

Selected candidate will be involved in all aspects of transgenic animal model production, including conventional pronuclear injection of one-celled embryos, surgical transfer of injected embryos into recipient females, and purification/quantitation of transgene constructs. In addition, this individual will assist scientists with construct design and founder screening; train personnel; assume responsibility for gene targeted mouse production, genetic monitoring of the animal colony inside the barrier facility, and maintenance of GLP in the transgenic unit; and cryopreservation of 8-cell mouse embryos/mouse sperm and in vitro fertilization. This position, which offers a strong career path, requires expertise in vector design, tissue culture, and screening as well as a BS/MS degree in Biology or Biochemistry or a closely related science.

Respond to: <http://respond.webhire.com/job/id?479-r1613-J1>

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TARRYTOWN, NY, USA

Senior Research Scientist

- Job Code (RD-1)

The candidate will evaluate targets, design/develop experimental protocols, and productively coordinate project team activities towards the discovery of potential human therapeutics for respiratory diseases such as asthma. Candidates must possess a Ph.D. with 2-5 years of relevant postdoctoral experience. The ideal candidate will have a background in cellular/clinical immunology and mechanisms of respiratory diseases. Direct experience with the development and implementation of cell-based assays and relevant in vivo animal models, immunocytochemistry (FACS, ELISA), and mammalian tissue culture is highly desired. Excellent written/verbal communication & presentation skills are a must.

Associate Scientist/Tissue Culture Coordinator

-Job Code (RD-2)

Coordinator position immediately available in the Tissue Culture Facility at the Tarrytown, NY site. The position includes managing the central TC facility and cell line collection, stocking and administering common biological reagents, training new staff members, and collaborating with various research groups. The candidate must have a B.Sc. with 5+ or M.Sc. degree with 2+ years of mammalian cell culture experience. Previous experience in cell-based analysis techniques such as flow cytometry or fluorescent microscopy is also valued. The candidate must have excellent communication skills, be highly responsible, and be willing to manage a service-oriented facility.

Qualified candidates applying for positions in Tarrytown, please send your resumes to: **Human Resources, Fax: (914) 345-3565 or e-mail to (indicate the job code - RD-1 or RD-2 in the subject field) employment@osip.com**

OSI Pharmaceuticals at Tarrytown offers a superb benefits package, including 3 weeks vacation, stock options, 401(K) and opportunities for career development.

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BIRMINGHAM, UK

As part of the Company's worldwide expansion, OSI Pharmaceuticals continues to invest heavily in its outstanding UK research infrastructure, located on the Aston Science Park. This includes a significant expansion in Medicinal Chemistry to support its growing portfolio of proprietary discovery programs.

Computational Chemist

- Job Code (Chem-1)

In order to support our substantial growth in Medicinal Chemistry, we seek an experienced computational chemist/molecular modeler. Working closely with chemistry colleagues, the successful applicant will undertake database searching, compound library design, protein-structure and ligand-based drug discovery programs, using state-of-the-art technologies. Candidates should have a strong background in the physical sciences and be qualified to Ph.D. level in a relevant area which includes a substantial computational component. Experience in the use of industry standard software and strong scripting skills are also required. A knowledge of protein homology modeling is desirable. The ability to work effectively as part of a multi-disciplinary discovery team is essential.

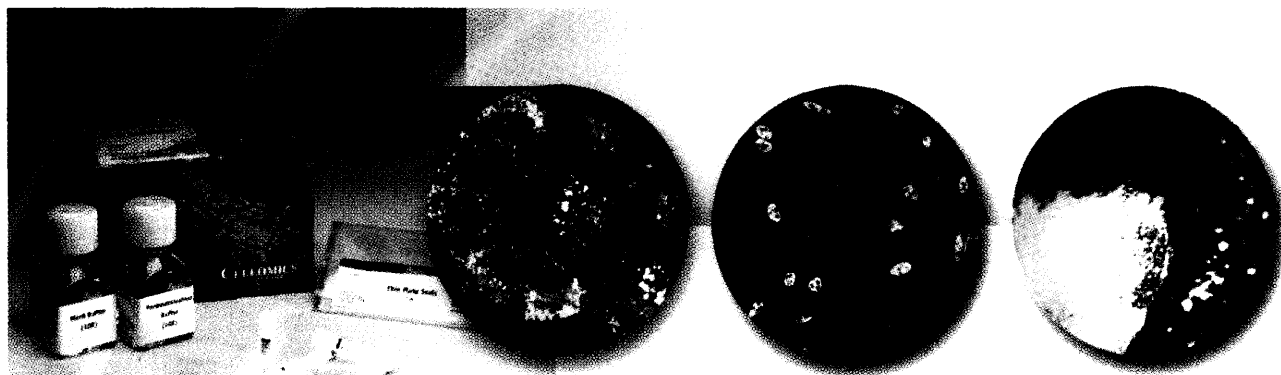
Group Leader, Computational Chemistry

- Job Code (Chem-2)

The expansion of the Discovery Chemistry division has created an opportunity at Group Leader level, to establish and lead a computational chemistry team of 4-5 people. Applicants for this exciting position will have wide-ranging responsibilities, including complete hardware and software specification and sourcing of leading edge technologies. It will be the responsibility of this individual to maintain and develop successful collaborations with outside vendors and resources. Candidates should have a minimum of 5-10 years computational chemistry experience in an industrial setting and a demonstrable track record of achievement in drug discovery. Good communication skills and an open, interactive approach to team working are essential to ensure the effective day-to-day delivery of high quality computational chemistry support to our international Medicinal Chemistry Project Groups.

Those wishing to apply should send a copy of their curriculum vitae and a covering letter, to the **Human Resources Manager, 10 Holt Court South, Aston Science Park, Birmingham, B7 4EJ, United Kingdom, or by e-mail to (indicate the job code - Chem 1 or Chem 2 in the subject field): employment-uk@osip.com; Fax: +44 (0) 121-359-7227.**

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Operations Positions:

Facilities Manager (AS7-SCI)
Quality Control Scientist (PM1-SCI)
Manufacturing Technician (PM2-SCI)

Life Sciences Positions:

BioAssay Specialist (DD1-SCI)
BioAssay Scientist (Two positions available) (DD2-SCI)
Scientist II (GB6-SCI)

Information Technology Positions:

IS Application Specialist (TD10-SCI)

Research and Development:

Systems Research Scientist (BG6-SCI)
Statistician (BG7-SCI)

Sales and Marketing Positions:

Field Applications Specialist (MN6-SCI)
Sales Support Specialist (PK2-SCI)
Customer Support Specialist (CM5-SCI)

Software Positions:

Systems Electrical Engineer (AZ1-SCI)
Project Manager (LZ12-SCI)
Software Engineer II (LZ13-SCI)

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EOE

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Director, Regulatory Affairs–Commercial Operations

You will lead the promotional review committee and act as the point of contact with FDA and other global regulatory agencies to ensure that Genentech is in full compliance with regulations. Your key responsibilities include reviewing promotional materials including press releases, websites and annual reports. In addition, you will train personnel from Legal, Marketing, Sales, and Regulatory Affairs on regulations relative to drug promotion and assist in the development of policies with respect to promotional activities. Requires a BA/BS in a scientific, healthcare, or business field or equivalent and 4-5 years in the medical, pharmaceutical or device/diagnostics industries. Demonstrated knowledge of relevant regulations and guidelines governing drug promotion is necessary, as is a proven track record applying FDA regulations and guidelines in a pharmaceutical corporation. Excellent communication skills, leadership ability and proficiency with common database software are preferred. Job Code: 3109-SCI

Manager, Regulatory Affairs–Clinical Development

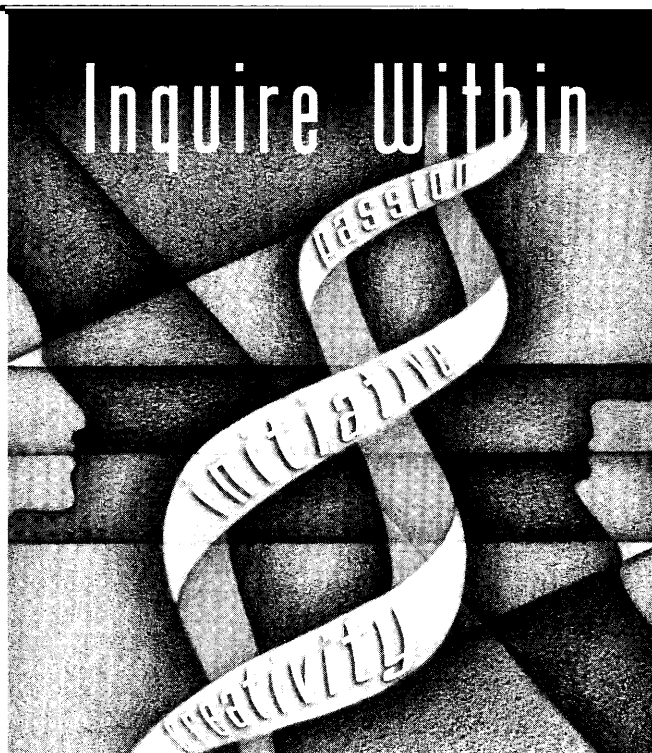
You'll be responsible for the development and implementation of clinical strategies, including the preparation and submission of regulatory documentation to FDA and international health authorities; ensuring the quality, content and format of regulatory submissions; and interacting with and managing one or more Regulatory Associates. Requires a BA/BS or equivalent with 4-5 years experience in the medical, pharmaceutical or device/diagnostics industries, including R&D experience and 3-4 years of experience in Regulatory Affairs. Strong knowledge of regulations/guidelines (particularly clinical drug development) is essential. This position requires that you have strong leadership ability in team and department settings. Job Code 3078-SCI

Scientist/Associate Scientist–Pharmaceutical R&D

Supporting the small molecule discovery program, you will help define drug substance form (salt form or polymorph) and solid state characterization of the dosage form, and assist in developing oral formulations, including solid dosage forms, for clinical evaluation. Requires a PhD in Pharmaceuticals, Chemistry or related field and 1+ years experience or an MS with 5 years experience. Experience utilizing DSC, IR, hot-stage microscopy, moisture analysis, X-ray powder diffraction required, as is experience with capsule and tablet formulations and development. Job Code: 2825-SCI

Scientist/Sr. Scientist–Pharmaceutical R&D

Responsibilities include the generation of preformulation data, production of test formulations for the evaluation of new drug candidates, development of analytical methods for characterization and selection of final drug substance forms (i.e. salt and polymorphic). You will provide technical assis-



tance to identify and negotiate with Contract Manufacturing Organization to develop/process/produce drug substance and product for clinical and market supply. Requires a PhD or equivalent in Chemistry, Pharmaceutical Chemistry or Medicinal Chemistry and 6-10 years industrial experience in pharmaceutical development. Job Code: 3293-SCI

Research Associate

You will design and conduct lab experiments to support the R&D of formulation, dosage form, and delivery systems for proteins and peptides. Collaborating with departments including Purification, Manufacturing, QC, and Pharmacokinetics/Toxicology, you will assist in creating stability indicating assays, confirm stability of final dosage forms, and characterize degradation products. Requires a BS/MS in biochemical, chemical, analytical or biophysical fields and excellent communication skills. Industry experience preferred. Job Code: 3393-SCI

Research Associate

In this Her-2 immunotoxin project, your responsibilities include formulating antibody and protein therapeutics, using established methods toward the development of formulations, as well as initiating novel formulation designs. Working in a larger group on novel formulation development toward matching formulation design, you will use your experience with analysis and formulation of proteins and antibodies. Requires a BS/MS in Pharmaceutical, Medical or Biological Chemistry or related field, 5-7 years lab experience and familiarity with protein formulation design and development. Knowledge of analytical techniques such as spectrophotometry, HPLC, and capillary electrophoresis is essential. You should be able to work independently with strong organization, problem-solving and communication skills. Job Code: 3450-SCI

To apply, please email your resume, indicating the appropriate Job Code, to tedrick@gene.com (place Job Code in the subject field; ASCII files only). Or mail to Genentech, Inc., Attn: Human Resources, PO Box 1950, South San Francisco, CA 94083-1950. Genentech is an Equal Opportunity Employer.

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We're looking for

The Medicinal Chemistry Department at Mölndal comprises some 120 staff working on the design and synthesis of new compounds, within Sweden AstraZeneca's cardiovascular & gastro-intestinal (CV/GI) drug discovery research. Currently there is a major expansion of the chemistry research activities at Mölndal and new laboratories will become available at end of 2002. The following vacancies are a key component of this expansion:

director computational medicinal chemistry (CMC) 73/01

- Oversee a substantial growth of CMC during the next 3 years including recruitment (aim for some 20-25 staff by 2004) and methodologies (structure based drug design; in silico screening, electronic medicinal chemistry laboratory)

director enabling technologies 74/01

- Lead and motivate some 30 staff currently working in teams focusing on analytical chemistry, combinatorial chemistry, compound handling, chiral chromatography

The Candidates for the director positions

- Inspirational leader, able to recruit, motivate, focus and develop teams to meet and exceed targets
- Track record of innovation and productivity in a drug discovery research environment
- Several years line management experience within a changing environment
- International research reputation in a relevant area

computational medicinal chemists with interest in interdisciplinary project work 111/01

Medicinal Chemistry is now looking for Computational Chemists who would like to form tomorrow's "Virtual Chemistry Laboratory" in Mölndal, Sweden.

- Target Identification including Bioinformatics, Structure Based Drug Design and Protein Modelling
- Small Molecule Modelling including Library Design and Pharmacophore Mapping
- Statistical Molecular Design and Chemometrics
- in Silico screening

the candidates for the CMC positions

You hold a doctorate and may have post doctoral experience in the field of Computational Chemistry or the equivalent. Experience from the pharmaceutical industry is naturally considered an additional qualification.

Please send your application marked with the respective job number no later than May 7 to: AstraZeneca R&D Mölndal, Human Resources, Victoria Persson, SE-431 81 Mölndal Sweden.

Further information regarding these and other available jobs can be found on our website.

You can also e-mail your application:

http://vp.astrazeneca.se/hr/advResultlist_eng.asp

LEADING INNOVATION IN WORLD HEALTHCARE

AstraZeneca 

AstraZeneca is one of the world's leading pharmaceutical companies with approximately 50,000 employees. In Sweden, about 10,000 people work for the company in pharmaceutical research, production and marketing.

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San Diego, California

Ligand Pharmaceuticals is a fully integrated biopharmaceutical company and a leader in applying gene transcription technology to the discovery, development and marketing of unique therapies for major unmet patient needs. We currently have opportunities for the following qualified professionals at our San Diego headquarters:

Associate Scientist /Scientist

As compound manager in our new leads discovery department you will be responsible for maintenance of the Ligand compound repository. Your responsibilities will include compound registration, inventory maintenance/tracking and database maintenance. you must have a B.S. in biology or chemistry, 3-5 years relevant industry experience, expertise in the development and use of chemical and relational databases (ISIS/base, oracle) and familiarity with automation and robotics. Strong programming skills using VBA and the development of active server pages would be valuable. **Dept. 7300-NLD**

Research Scientist / Sr. Research Scientist

As a member of the Osteoanabolic Pharmacology Group, you will develop, validate, and implement animal models of osteopenia, osteoporosis, and sarcopenia for the purpose of discovering and developing pharmaceuticals acting through nuclear receptor modulation to treat osteoporosis, frailty, and related diseases. You must have a PhD, MD, or DVM, with 3 to 5 years of successful experience in bone biology including animal models of osteopenia/osteoporosis. Previous industry experience and familiarity with nuclear receptor signaling preferred. Proven expertise in animal physiology and pharmacology and a solid biochemical, analytical, and statistical background expected. The incumbent will have strong presentation skills, proven independence, able to supervise the work of others and interact well in a team-oriented environment working under well-defined goals and established timelines. **Dept. 7400-OST**

Associate Director/Director

You will be responsible for organizing, developing, and directing a newly formed group of Osteoanabolic Biology within the Department of Pharmacology. Your group will provide and implement the animal models to assess bone and muscle anabolism and catabolism required to support multiple ongoing and future drug development programs in the areas of men and women's health, oncology, inflammation, osteoporosis, frailty, and other indications. You must be a highly qualified PhD, MD, or DVM with a well-recognized reputation in the area of bone biology and have proven expertise in animal physiology and pharmacology. Ten or more years of experience required, preferably in the pharmaceutical industry. Familiarity with the role of nuclear receptor signaling pathways in the regulation of bone and muscle development, growth, and metabolism required. The incumbent will have excellent presentation, organizational, and managerial skills, proven originality and independence, extensive and successful supervisory experience and be able to interact well in a team-oriented environment within the company and externally with our pharmaceutical partners. You must have excellent leadership skills that provide the potential for playing a major role in the conduction of internal or partnered programs. **Dept. 7400-DIR**

Research Associate/Senior Research Associate

Working in our Pharmacology Department, you will assist in investigating the biological properties of compounds in both in vitro and in vivo model systems. The candidate will participate in the development and implementation of these assays of endocrine and CNS action in a team-oriented environment. You must have a BS/MS with 1+ years of experience in animal handling. Experience with rodent models is strongly required. Familiarity with molecular biology research techniques such as DNA cloning, PCR, real time PCR, hybridization, cell culture and transient gene expression preferably in endocrinology and/or CNS is desired. Additional experience as a research associate in an industrial setting is preferred. Experience with data analysis and graphic computer programs is recommended. **Dept. 7400-FLS**

Assistant Scientist/Scientist

In this position you will employ the latest in molecular, immunological, biochemical, and cell culture based techniques to identify and characterize novel molecules of potential therapeutic value. Your studies will focus on relevant models of intracellular receptor signaling in order to identify Ligands of nuclear receptors for the treatment of diabetes and dyslipidemia. Insights gained through this work will be translated into novel assays capable of detecting and characterizing small molecule compounds with significant advantages over current therapies. A B.S. is required and 2 years molecular and cellular biology experience is preferred. **Dept. 7400-JFS**

Research Associate/Scientist - Mass Spectrometry

Your responsibilities will be to support preclinical and clinical pharmacokinetic and metabolism studies through mass spectrometric identification of drug metabolites and through the quantification of analytes in biological matrices using LC/MS techniques. Candidates should be able to work independently and should have experience in quantification of small molecule xenobiotics, identification of metabolites and development of LC/MS methods. Experience performing routine maintenance/troubleshooting of analytical instrumentation is essential. Candidates must have a BS degree with at least 5 years of experience in analytical chemistry, bioanalysis or related fields, or a MS degree with at least 3 years experience. Good oral and written communication skills are essential. **Dept. 7700-MSP**

LIGAND, located in the Torrey Pines area of San Diego, California offers an attractive salary and benefits package, including stock options. Please submit your resume in one manner only to: **LIGAND Pharmaceuticals, (Insert Dept. Code here) 10275 Science Center Drive, San Diego, CA 92121.** Fax (858) 550-5649. Email: jobs@ligand.com EOE.



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Millennium was founded with a vision: to transcend the limits of medicine. We dreamed we could do that by building a new type of company. Now, we are realizing that dream. We are dramatically increasing productivity throughout our "gene to patient" platform. We are developing personalized medicine products. And we are focusing on rapidly moving downstream toward commercialization in three disease areas—oncology, metabolic disease and inflammatory disease.

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Associate Director/ Metabolic Pharmacology

You will lead the group in conducting *in vivo* metabolic drug screening and drug profiling strategies during the lead validation and pre-clinical stages. This opportunity requires a PhD, 4-7 years industry experience in efficacy and kinetic pharmacology, postdoctoral experience in a pharmacology lab, and pre-clinical experience in CNS or metabolic drug development.

Scientist, Metabolic Disease/GPCR Biologist

Qualifications for success include a PhD, 1-3 years experience in GPCR signaling to develop sensitive assays for orphan GPCRs in metabolic disease, and experience in membrane and cell-based ligand binding assays and reporter-based signaling assays.

Scientist, Metabolic Disease/Pharmacology

Major responsibilities are related to *in vivo/in vitro* metabolic drug efficacy screening during the pre-clinical stage. You must have a PhD, 1-3 years post-doctoral experience in efficacy pharmacology or therapeutic models in industry, and experience with CNS or metabolic physiology/pharmacology techniques.

Associate Director, Non-clinical Development of Biotherapeutics

Apply your strong background in biologics pharmaceutical development to plan the development pathway for biotherapeutic products, with a focus on developing monoclonal antibodies for treating cancer and inflammatory or autoimmune diseases. Requirements include a PhD and a proven record in managing people and projects within an industrial pharmaceutical development environment.

Assay Development Leader

Develop, standardize and validate assays used to monitor pre-clinical studies and, possibly, clinical trials of novel protein biotherapeutics. We require a BS/MS (preferably in Biology, Immunology or Biochemistry); experience in assay design, conduct and optimization; proficiency in data analysis, interpretation and reporting; and experience in a GLP environment.

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Careers and Events in Drug Discovery



SHERRY DOLKART

"The most important qualification is real leadership potential. That means a desire to participate in bringing important new therapies to the world," Dolkart says. "The kinds of people who are successful at Amgen are those individuals interested in trying new approaches to drug discovery in a very multifunctional environment. These interdisciplinary scientists are comfortable working at the blurred boundaries between traditional roles. Additionally we look for strong technical managers. We seek people who have in-depth understanding of highly technical areas and exceptional management skills. They are able to infect others with their excitement and commitment to making a difference in human therapeutics."

Amgen also encourages willingness to go out on a limb in the lab. "We look for people who want to take risks," Dolkart continues. "By that we mean scientists who want to work in an entrepreneurial environment where you are not afraid to think out of the box. You must be a team player and be able to participate in a matrix environment, to communicate enthusiasm, and to devise creative approaches."

To identify the most promising applicants, Dolkart and her colleagues first look at candidates' education, publication lists, and achievements in academe and/or industry. They probe for less tangible qualities using behavioral interviewing methods. "We look at candidates' presentations and their social interactions in one-on-one interviews and panel interviews," Dolkart explains.

What advice does she have for potential applicants? "Take advantage of internship programs in a pharmaceutical company," she says. "Work as a temp during the summers in any lab setting. And do a postdoctoral fellowship."



JULIAN ADAMS

CAMBRIDGE, Massachusetts: Millennium Pharmaceuticals, Inc. focuses on three main areas of disease: oncology, metabolic diseases with particular reference to obesity and adult onset diabetes, and inflammatory diseases. "We want to identify and be able to understand the role of genes in those diseases," explains Julian Adams, senior vice president of drug discovery. "We will also set up a parallel drug discovery program using all modern tools."

Overall, he continues, "We have tried to create the broadest-vision company. We think we have developed a paradigm from gene to patient, including full patient management." That includes efforts to change the mechanisms of clinical trials. "By using genomics as part of the clinical trial we can determine responsiveness to drugs based on genotypic pattern response," Adams says. "We can perhaps determine side effect profiles depending on genotype. If we can do that in a Phase II trial with a few hundred patients, we can devise a Phase III trial in which we select the right patients to illustrate the drugs' efficacy most effectively."

To achieve Millennium's goals, Adams adds, "We have a wide variety of scientific disciplines, from pathology to organic chemistry to proteomics-based biochemistry. We try to hire the very best people at the Ph.D. and associate level. We've recently embarked on trying to get peo-

ple who understand different neural architectures for knowledge management — understanding not only the genes but also the pathways." Much of the R&D that the company undertakes involves informatics. "In addition to our wet workers — the chemists and biologists — we have a very large information technology group," Adams says. "We have been hiring systems engineers and people from IBM."

Scientists and engineers must avoid unidimensional views of research. "We need people very skilled in their disciplines," Adams says. "We also need staff highly conversant with a multidisciplinary environment."

If you're interested in working in that environment, "You should get the best training you can," Adams advises. "Spend some time between your first degree and starting graduate school in an industrial biotechnology environment. Try to work in an area in which you'll not only develop strong skills in a discipline but also get involved in multidisciplinary research. And be adaptable to the revolutionary state of science in both understanding and instrumentation."



JIM SUMMERS

ABBOTT PARK, Illinois: In its drug discovery program Abbott Laboratories has taken a nontraditional approach to technology. Over the past five years its Advanced Technology Group has fine-tuned several novel technologies that enable drug discovery, including high throughput screening, NMR, and x-ray crystallography. "We provide the tools for drug discovery — genomics, high throughput screening, combinatorial chemistry, structural biology, and engineering," says Jim Summers, vice president of the Advanced Technology Group.

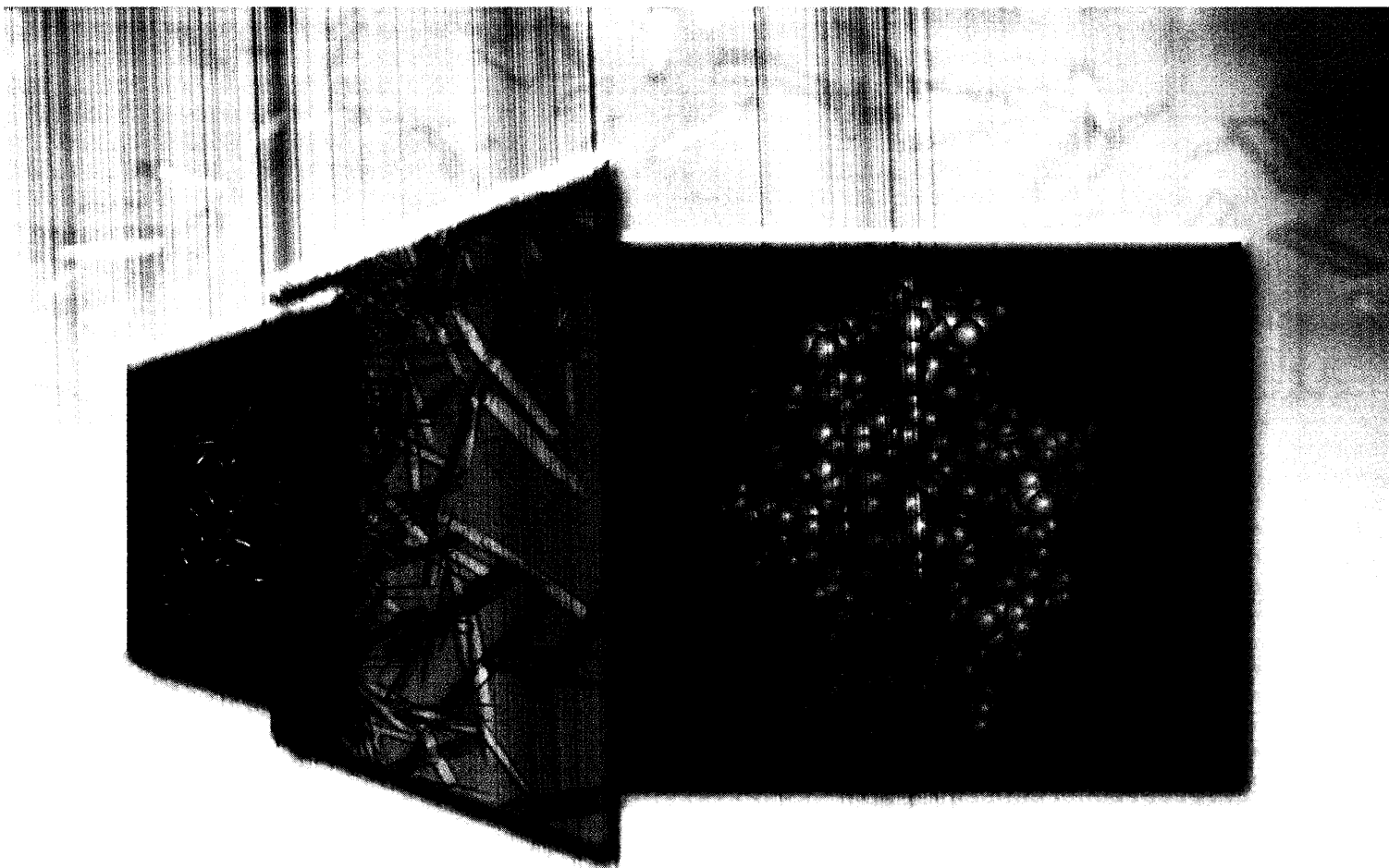
Summers and Abbott are interested in candidates with diverse experience at all levels, including B.S., M.S. and Ph.D. scientists. "Drug discovery is based on the fundamentals of biochemistry, molecular biology, and pharmacology, as well as chemistry," Summers says. "We also need specialists in bioinformatics, structural biology, and information technology. We are really interested in people with all kinds of different backgrounds."

Five years ago, as illustration of that broad interest, Summers recruited a group of Ph.D. engineers. "We asked them to come up with innovative ways to expedite and enable the drug discovery process," he says. "They provide a unique perspective and envision solutions to problems in high throughput screening, crystallography, and other areas that traditional drug scientists couldn't imagine."

Not surprisingly, Summers considers the character as well as the training of scientists who apply to join his group. "We're really looking for bright people," he says. "We find that a particularly talented individual can have as much impact as three or four other scientists. We are looking for people who are energetic, willing to challenge the status quo. We need people able to adapt to new disciplines and developments in science."

How does Abbott identify those individuals? "We see whether applicants have worked in a collaborative relationship in their previous experience," says Summers. "In the interview we judge how much they know about other disciplines."

Like other pharmas, Abbott runs summer internships. "We bring in graduates and undergraduates to work alongside our scientists and get an idea of what drug discovery is all about. A number of scientists have changed their career courses as a result."



What we have in common sets us apart.

At Amgen, we believe success can only be achieved when every individual within an organization shares a common aspiration. Amgen aspires to be the best human therapeutics company in the world. Sometimes, that means creating new and different approaches to drug discovery.

Amgen's open, highly collaborative team environment allows scientists to work across traditional disciplinary boundaries, while our culture encourages passion, ownership, and individual empowerment. And backed by Amgen's abundant resources, you'll find you can accomplish remarkable things. Which is what we are here to do.

We invite you to find out more about us, and why *Fortune* magazine has named us one of the "100 Best Companies to Work For" four years in a row and recently, one of "America's Most Admired Companies."

Visit us on the web at **www.Amgen.com**. Or e-mail your resume to **jobs@amgen.com** (**Ad Code 751**) for opportunities in our Thousand Oaks, California; Cambridge, Massachusetts; or Boulder, Colorado facilities. Or contact us by mail at **Amgen Staffing (Ad Code 751), P.O. Box 2569, Thousand Oaks, CA 91319-2569**.

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an opportunity too great to resist!



Microcide Pharmaceuticals, Inc. is at the forefront of the war on antibiotic resistance. Through our commitment to discovering new and unique anti-infectives, we're out to stop the spread of infection. As an industry leader in the development and discovery of novel antimicrobial agents, our targeted Antibiotic and Genomic efforts are catching on! We have immediate opportunities for the following areas.

BIOANALYSIS AND DRUG METABOLISM

Research Associate or Scientist

You will participate in the elucidation and optimization of pharmacokinetic properties of novel anti-infective compounds for discovery, preclinical, and clinical development. Your responsibilities include developing and validating HPLC assays to evaluate the pharmacokinetics of compounds and their metabolites in preclinical models. Additional duties include set-up and performance of assays for drug metabolism and transport in *ex vivo* systems, such as tissue microsomes or cell cultures (e.g., Caco 2). The ideal candidate will have experience with HPLC/MS/MS and other detection systems for quantitation of compounds in biological matrices. Experience in high-throughput methods, GLP procedures, data acquisition software, and standard statistical procedures/software is preferred. Qualified candidates will have an undergraduate or graduate degree in pharmacology, chemistry, biology, or related field and 2+ years laboratory background with hands-on experience in analytical methods development using biological matrices. Competency in the Microsoft Office Suite (e.g., Excel), computer literacy, and excellent oral and written communication skills are needed.

PHARMACOLOGY: IN VIVO STUDIES

Research Associate

As a Research Associate, you will conduct pharmacokinetic, toxicological, and efficacy evaluations of anti-infectives in small animal models (rodents, rabbits) in an AAALAC-accredited animal research facility. Specifically, your duties will include in-life handling and administering of drugs to animals; harvesting and processing tissues for pharmacokinetic analyses; and performing quantitative *in vitro* pharmacological assays. Performance of these require careful adherence to protocols and SOPs for drug evaluation *in vivo* and scrupulous record keeping and documentation of results. Qualified candidates will have a BS or MS in Biology, Pharmacology, Microbiology, or related scientific discipline with documented training or hands-on experience in handling small animals in drug evaluation protocols. Experience performing small animal surgery is preferred. Experience working in a GLP environment in support of drug discovery or development programs, and AALAS certification are desirable. Familiarity with MS Office Suite is required; working knowledge of key database programs (e.g., Oracle) is preferred.

SYNTHETIC CHEMISTRY

Research Scientist

This scientist will be responsible for the Preparative Chemistry Laboratory. Activities include synthesis of intermediates and final products (up to 1 kg. scale) to support medicinal chemistry programs. The focus will be on improving existing synthetic methods to increase the yields and efficiency of synthetic organic transformations. You will also guide the activities of one or more research associates. Requires an MS in Organic Chemistry with 5+ years experience or a PhD with 2-5 years experience in intermediate- to large-scale synthesis (1 g. to 1 kg.) in an industrial environment. Expertise in designing experiments and solving problems using modern chemical principles and laboratory techniques in organic chemistry, knowledge of spectroscopic analysis methods, and facility with analytical and preparative HPLC are essential.

MEDICINAL CHEMISTRY

Research Associate

Responsibilities include synthesis of small molecules, by both solution- and solid-phase methods, for evaluation as potential anti-infective agents. Requires a BS/MS degree and at least 1 year research experience in organic synthesis. Knowledge of spectroscopic methods of analysis (NMR, IR-UV, and MS) and analytical/separation procedures (column chromatography, reverse-phase chromatography, and HPLC) is highly desirable.

Research Scientist

Working in an interdisciplinary program in anti-infective research, you will conduct all aspects of the design and preparation of new chemical entities for biological testing. You will also guide the activities of one or more research associates. Requires a PhD in Organic or Medicinal Chemistry, with emphasis in experimental synthetic organic chemistry. Postdoctoral experience in either an academic or industrial setting is highly desirable. The ability to solve problems using modern chemical and biochemical principles and laboratory techniques in the field of organic chemistry is a fundamental requirement.

PHARMACEUTICAL CHEMISTRY

Research Scientist

Apply your expert knowledge of separations science and physical chemical principles to the measurement of physical properties of organic compounds, as well as to the design of appropriate oral and parenteral dosage forms for *in vivo* studies. You will also develop/validate HPLC methods and supervise the activities of an associate scientist. Requires a PhD in Organic, Analytical or Pharmaceutical Chemistry with at least 3 years experience conducting pharmaceutical/analytical chemistry in an industrial setting, or MS with at least 8 years industry experience. A sound understanding of separations technology and extensive experience in the development/validation of new HPLC assay methods are needed. Relevant experience in one or more of the following areas is desirable: correlation of lipophilicity data with measured biological properties (*in vitro* potency and oral absorption); formulation of organic compounds for oral administration; determination of physical properties (pK and critical micelle concentration); use of methods and instrumentation (capillary electrophoresis, ion chromatography, and solid-phase extraction); and determination of structures of impurities and degradation products in chemical substances using mass spectroscopy.

These exceptional career opportunities are supported by a competitive salary and excellent benefits. If you're an energetic, motivated professional, please send or fax your resume to: Microcide Pharmaceuticals, Inc., Attn: Human Resources, 850 Maude Avenue, Mountain View, CA 94043. Fax: (650) 428-3566. E-mail: hr@microcide.com. Visit our website at www.microcide.com. EOE



It's More Than A Career. It's A Defining Experience.

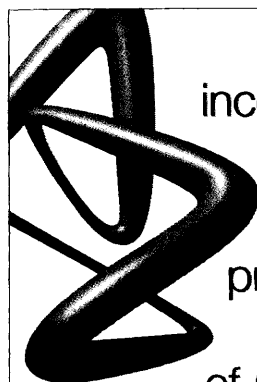
Investigator

GlaxoSmithKline joins together the talented people of Glaxo Wellcome and SmithKline Beecham to create the world's leading research-based pharmaceutical company. We're the market leader in four of the five largest therapeutic categories, with unrivaled global marketing strength and powerful R&D and Manufacturing capabilities supporting a research spend of \$4 billion and sales of \$24.9 billion annually. Best of all, the industry's greatest, most innovative minds are now assembled under one name. If your goal is to change the world with innovative medicines, now is the time to join our respected team. We currently have an opportunity available in our state-of-the-art facility, located in suburban Philadelphia, PA.

Working as an Electrophysiologist in our Cardiac Biology department, you will conduct and manage research on a particular disease as well as assess and validate targets derived from Genetic Research, Discovery Research and external sources. You will also contribute to the evaluation of disease areas relevant to CV, GU or oncology. We require a PhD with a proven track record of excellence in Cardiac Electrophysiology. Specialist knowledge of a given disease, such as congestive heart failure, cardiac arrhythmias, or cardiac remodeling is also required.

GlaxoSmithKline is dedicated to an innovative workplace and supports you with career long opportunities and learning. We offer a competitive benefits and compensation package designed to attract and retain the very best. In addition, Working Mother magazine 2000 has listed both Glaxo Wellcome and SmithKline Beecham as two of the 100 best companies as employers for working mothers. For confidential consideration and efficient processing, please mail your resume to: GlaxoSmithKline, Job Code: 01-0351, P.O. Box 40047, Philadelphia, PA 19106 or visit our website: www.gsk.com. Indicating Job Code is essential. Principals only, no agencies please.

*Developing talent through equality of opportunity,
M/F/D/V.*



This is a sign of
incomparable
innovation
For R&D
professionals
it's also a sign
of opportunity.

AstraZeneca is a worldwide leader in the research, development, and marketing of innovative pharmaceuticals. Our research site in **Wilmington, DE** is growing and we currently have opportunities for:

Associate Director (Lead Optimization Chemistry)

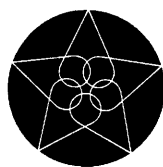
— You will manage a group of Ph.D. Medicinal Chemists providing scientific leadership to develop well-thought, hypothesis-based, chemical plans and strategies to support our multidisciplinary drug discovery project teams. You will guide and help develop our Chemistry department strategies, provide coaching/mentoring for junior scientists, and embrace a culture of open knowledge sharing and the well-judged application of cutting edge chemical technologies to our Project Team objectives. Requires a Ph.D in Organic Chemistry and 10 years of drug discovery experience as a medicinal chemist (with a proven track record). The team player we seek must have strong people management skills, be an innovative thinker, and be passionate about drug discovery medicinal chemistry. **Requisition code 9234.**

Computational Chemists — Working from our corporate headquarters, you will serve as a member of Discovery project teams. Candidates will have a Ph.D. and preferably extensive experience in one or more of the following areas: structure-based design, combinatorial chemistry library design, pharmacophore elucidation, optimization of ADME properties, or leading informatics applications. Should be highly motivated and creative, with strong interpersonal and communication skills. **Requisition code 7787.**

Medicinal Chemists — You will synthesize, purify, and characterize drug candidate molecules for evaluation Z, Master's or Ph.D. in Organic or Medicinal Chemistry and 0-10 years of experience in a pharmaceutical (or related research) environment. Extensive knowledge of modern synthetic organic chemistry, spectroscopic methods, and chromatographic techniques is essential. **Requisition code 8275.**

AstraZeneca offers outstanding rewards to those who can help us help others. Please send your resume to: **AstraZeneca, E-mail: hrjobopportunity@AstraZeneca.com or FAX to: (302) 886-7124, Attn: Caroline Kelley. Please include requisition code of interest.** AstraZeneca is proud to be an Equal Opportunity Employer.

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Texas Biotechnology Corporation has an established record of drug discovery and development of small molecule therapeutics for the treatment of diverse diseases. Texas Biotechnology Corporation is seeking several individuals with the creativity and drive to contribute to drug discovery research as members of multidisciplinary teams.

Senior Scientist, Drug Discovery

Seeking a highly motivated scientist to develop a research project focused on drug discovery in the Company's existing apoptosis program. 2+ years of post-doctoral experience in signaling using molecular biology, biochemistry, cell biology or related disciplines is required with supporting publications and presentations. Demonstrated experience in cell-free and cell-based assays is highly desirable. Excellent communication, writing and interpersonal skills are essential. (Job Code: LD-2001)

Senior Scientist, Bioinformatics

Seeking a highly motivated individual to design internal databases by assimilating public domain and proprietary data related to gene/protein families, cell signaling pathways and gene-disease correlations. Position requires a broad knowledge of biology as well as an in depth understanding of bioinformatic tools and ability to build user-friendly software tools for data analysis. We require a Ph.D. and 2+ years experience with expertise in the following applications: Java, C/C++, pl/SQL, object-oriented design, relational databases, or Perl. Excellent communication, writing and interpersonal skills are essential. (Job Code: SC-2001)

Computational Biologist, Bioinformatics

Seeking a highly motivated individual to work in a challenging team environment focused on post-genomic target discovery and validation in inflammatory and cardiovascular disease. A Ph.D. with relevant experience/publications in molecular/cellular biology required. Candidates with demonstrated expertise in characterizing transgenic animals and profiling gene/protein expression are particularly sought. Excellent communication, writing and interpersonal skills are essential. (Job Code: SC-2002)

Research Associate, High Throughput Screening

Seeking a highly motivated individual to develop and implement high throughput screening assays for drug discovery including enzymatic, ligand binding and cell-based formats. We require a BS/MS with 1+ year experience in biochemistry or cell biology and a demonstrated ability to work in a team environment. (Job Code CS-2001)

Research Associates, Drug Discovery

Qualifications include a BS/MS degree in biomedical science with at least 1 year of laboratory experience cloning genes and expressing proteins. (Job Code: LD-2002)

Texas Biotechnology Corporation is an equal opportunity employer that offers competitive compensation packages and a highly stimulating work environment. If you feel that you have the skill set we seek and are committed to teamwork, please send your resume to **Human Resources, Texas Biotechnology Corporation, 7000 Fannin, Houston, TX 77030**. Please include job code with your resume. To learn more visit our website at www.tbc.com.



ICAGEN, Inc., is a leader in the discovery and development of small molecule drugs that target ion channels in a wide variety of therapeutic areas. Located in the Research Triangle Park, North Carolina, close to the resources of three major universities, the company has assembled a world class group of scientists and is adding key new members to the team. We are looking to attract talented individuals who are able to make an impact in an exciting and challenging environment.

TITLE: Electrophysiologist

JOB CODE: EP-42001 (Ph.D.)

A position is available in Biology for Ph.D. level electrophysiologist. The responsibility for this position will include conducting experiments in support of both collaborative and internal discovery projects, characterizing new ion channel genes, and performing experiments to identify targets and therapeutic directions. A strong theoretical background in ion channel biology is required with demonstrated proficiency in electrophysiological techniques and data analysis. This position also requires excellent communication skills, both written and verbal, and the ability to work in a team environment.

TITLE: Senior Scientist, Pharmacology

JOB CODE: Pharm-0206

The applicant should have experience conducting in vivo functional assays to evaluate efficacy and side effects of novel pharmacological agents. The primary responsibility will be to conduct in vivo functional assays and will also require scheduling studies, supervising studies, and presenting data to ICAGEN project teams. Design and development of new animal model systems will also be a significant part of the job.

Requires a Ph.D. with 0-2 years experience in pharmacology or related life science, or D.V.M. with research experience, or M.S. in pharmacology or related life science with 5 years industry experience.

Applicant should be skilled in conducting in vivo experiments (dosing, surgery, etc.). The applicant must be flexible, willing to work in multiple therapeutic areas. Experience with immunology, animal (rodent) surgical models, or behavioral pharmacology is a plus.

ICAGEN provides a comprehensive compensation and benefits package including competitive salaries, stock options, medical and dental plans, and a 401(k) retirement plan. For consideration, please submit your resume or CV and salary history directly to:

Human Resources

ICAGEN, Inc.

P.O. Box 14487

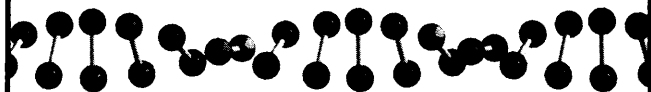
Research Triangle Park, NC 27709

Email: jobs@icagen.com

Please include the appropriate job code with your cover letter.

ICAGEN, Inc. is an equal opportunity employer.

Make Your Next Discovery Dynavax!



Dynavax Technologies is a biopharmaceutical company developing innovative therapeutic and prophylactic products that beneficially alter the immune system to treat allergy, inflammation-mediated disease, infectious disease and cancer. Our primary focus is on immunostimulatory sequences, or ISS—short DNA sequences that help the immune system to fight disease and control chronic inflammation. We also have a separate program to develop orally available small molecules in the thiazolopyrimidine, or TZP, class. Discover these exciting career opportunities as part of our highly collaborative team environment, located in San Francisco's East Bay.

DRUG DISCOVERY

Principal Scientist – Genomics/Gene Expression

Research Associate II/III – Asthma

PRECLINICAL

Manager – Clinical Assay

Research Associate II – Infectious Disease

BIOPHARMACEUTICAL DEVELOPMENT

Principal Scientist – Conjugate Development

Principal Scientist – Process Development

Sr. Scientist – Protein Chemistry

Scientist – Pharmacokinetics

Scientist – Formulation

We offer an attractive salary and benefits package. For more details, please send your resume/CV to: Dynavax, HR, 717 Potter Street, Suite 100, Berkeley, CA 94710 or by email to HR@DVAX.com, or by fax to 510-665-7714. An equal opportunity employer. Visit our website for more details on these and other opportunities:

www.dynavax.com

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genzyme

Genzyme Corporation is a highly successful biotechnology company with a variety of healthcare products. Genzyme has extensive research programs developing treatments aimed at genetic, renal and cardiovascular diseases and areas of oncology. Our approaches include therapeutic protein replacement, cellular replacement, biomaterials, gene therapy and small molecules. We are currently seeking scientific personnel based at our Framingham, MA location.

Scientific Director

As the research project leader, you will coordinate a team of PhD and staff scientists in anti-angiogenesis research with the objective of identifying and developing therapeutic products. This will include directing a multi-platform program including therapeutic proteins, low molecular weight compounds and gene therapy in tumor anti-angiogenesis. Responsibilities will include co-development of scientific strategy and oversight of tactical execution. You must be well-versed in cell biology/physiology of angiogenesis within a tumor biology context and have experience with *in vivo* and *in vitro* models of anti-angiogenesis and familiarity with molecular aspects of angiogenesis. Requires a PhD and a minimum of 12 years relevant experience with a proven track record in vascular biology/angiogenesis as evidenced by quality publications. Biotechnology or pharmaceutical industry experience highly desirable. Must be able to work and thrive in a matrix management environment and have strong written and oral communication skills. Job Code: 01-0539

Staff Scientist I/II

You will be in charge of the Company's confocal microscopy facility and will interact with multiple research groups across the organization. You will also be a key player in research efforts within the Pathology Department and a leader in fluorescent microscopy, image acquisition and image analysis of cell culture and animal tissue models of disease. A PhD in Molecular/Cell Biology with 0-3 years postdoctoral experience and expertise in confocal and fluorescent microscopy required. Industry experience a plus. You must have a working knowledge of molecular/cell biology, cell culture and histology, and strong computer skills with expertise in digital image acquisition and image analysis using Metamorph, Image Pro Plus and Photoshop. We seek a highly motivated self-starter with effective supervising skills, excellent interpersonal, written and presentation skills and a team approach to research. Job Code: 01-0542

Genzyme rewards success with an excellent compensation and benefits package, including 3 weeks paid vacation, a 401(k) plan with company match, extensive insurance benefits, and an Employee Stock Purchase Plan. Interested candidates should forward resume, including Job Code, to: Genzyme Corporation, Human Resources, One Kendall Square, Cambridge, MA 02139. Email: biojobs@genzyme.com (appropriate Job Code must appear in subject line).

www.genzyme.com/careers

An equal opportunity employer, Genzyme is committed to a culturally diverse workforce.

**“We have the technology to mine
the genome. The race is on”**

Michael Kranda – CEO OGS
FT 13th February 2001

The completion of the first draft of the human genome has highlighted proteomics as the drug discovery and development technology for the 21st century. This is because it is only by quantifying protein-variants and expression-profiles in large numbers of individuals that it will be possible to understand the genome and its role in human disease.

OGS is a world leader in high-throughput proteomics and has created the first industrial-scale proteomics facility at Milton Park, Oxfordshire. This plant has enormous capacity and over the next few years will identify all of the genes and proteins that are of relevance to the pharmaceutical industry.

Proteomics at OGS is entirely automated using computers and robotics and we are seeking to employ Computational Scientists, IT Professionals and Bioinformaticians to develop the next generation of proteome systems that will allow us to keep pace with the demands of our customers, principally the major pharmaceutical companies.

This unprecedented convergence of biology and IT provides unique employment opportunities for people who thrive in a company that provides substantial scientific and technological challenges and which is positioned to win the race to discover the genes and proteins that will fuel the next generation of medical breakthroughs.

BIOINFORMATICS Computational Scientist

You will join an existing team working on systems for the automated acquisition of proteome data, data mining and data visualisation. As well as programming, you will liaise with the scientists who will be using your systems and you will be involved in testing and deployment.

You will have a record of significant achievement in object-oriented programming with knowledge of most of the following: COM; ATL; OLEDB; Win32; GDI; Visual Basic and ActiveX. Familiarity with scientific data analysis and visualisation would also be advantageous.

Senior Data Analyst, Image Analysis

A PhD level scientist with expertise in image analysis or statistical data analysis, you will work on improving image evaluation and image databases. Using OGS's proprietary systems, you will liaise with developers in order to improve our systems and validate and apply new methods for use in Proteome Production.

Your experience will include familiarity with a wide range of computational tools. Knowledge of relational databases, Perl and a bioinformatics background would all be advantageous.

Database Administrator

You will prepare proteome databases for delivery to internal and external customers. You will create delivery schedules and troubleshoot data delivery problems. This role will give you the opportunity to learn about all aspects of database production and delivery.

Your industrial IT experience will include most of the following: Microsoft operating systems; Visual Basic; Perl; Access; SQL Server; Oracle. A life science background would be advantageous.

SOFTWARE ENGINEERING Database Developer

You will work on databases for proteome data collection and high throughput processing, developing software for data exchange, format conversion and data validation.

You will be familiar with most of: Perl; Java; Visual Basic; C/C++; JavaScript; CGI and SQL. You will also have a good understanding of object oriented programming, relational database design, web integration, Unix and NT. Familiarity with Informix and Oracle would be advantageous.

IT Project Manager

You will be responsible for delivering OGS IT projects on time and to budget. This is likely to include software development, system integration and infrastructure development projects. You will

manage all aspects of projects from initial analysis through to implementation, working within the framework of the OGS project management system (derived from DSDM). Ideally you will be a graduate with a scientific background and a track record in IT project management that includes the successful delivery of multiple, simultaneous projects. You will have a high level knowledge of computer networks and hardware, databases and MS packages. LIMS experience would be advantageous.

Perl Programmer

Part of a team that implements new features and services for our Proteome process, you will maintain and develop the OGS Perl code database.

You will need an excellent knowledge of Perl (including Perl DBI) and be familiar with JavaScript, CGI, SQL, database design and web integration. Comfortable with object oriented programming concepts, you will have experience of supporting pre-existing OO software. Familiarity with Unix, NT, Informix and Oracle would all be advantageous.

MASS SPECTROMETRY Scientific Programmer

As part of our mass spectrometry team, you will help develop software for high throughput interpretation of mass spectra. You will translate ideas into algorithms and then implement those algorithms as robust and reliable software. You will also assist mass spectroscopists with data interpretation.

You will have extensive experience of scientific data analysis, probably as a result of working in experimental spectroscopy, as well as a background in physics, chemistry or biology. You will also need experience of software development using visual programming tools, especially Visual C++ and related Microsoft tools.

Systems Integrator Data Acquisition

An experienced programmer, you will provide efficient and effective IT systems for our high-throughput mass spectrometry laboratory. This includes systems for data acquisition,

instrument control, calibration, local DP, sample tracking and laboratory automation. A science or engineering graduate with good problem-solving skills, you will have high level programming and scripting experience in the Microsoft environment. Visual Basic, Perl and C++ are all desirable.

Systems Integrator Data Storage

You will provide IT facilities for data transport, storage and processing, including reliable transfer methods, process queuing, central databases as well as automated data checking and auditing.

A graduate in a scientific or engineering discipline, with good troubleshooting skills, you will have experience of: Unix; NT; networks; programming and scripting in Perl and C++; relational database design and implementation. Experience of industrial or commercial IT, the development of archiving and backup systems and heterogeneous networks would all be advantages.

IT SYSTEMS Software Tester

You will test and validate our proprietary software, including developing test specifications and testing strategy. Your background in software engineering will include test methodologies and languages, particularly Visual Basic and C++. A scientific or medical background would be advantageous.

In addition to providing an exciting and stimulating environment, OGS offers attractive salaries and comprehensive benefits including share options, private health care, a non-contributory pension, corporate gym membership and relocation assistance.

For further information or to discuss your suitability for any of these positions please contact Andrew Lyall, IT Director & CIO, at the address below. E-mail: Andrew.Lyall@ogs.co.uk

To apply please send your CV with current salary details to Miriam Burton, Senior Human Resources Officer at:

Oxford GlycoSciences, The Forum,
86 Milton Park, Abingdon,
Oxfordshire OX14 4RY.
E-mail: Miriam.Burton@ogs.co.uk

www.ogs.com



Leading the Genomic Revolution

Scientist / Sr. Scientist Positions in North Coastal San Diego County

Isis Pharmaceuticals, Inc., is a leading genomics-based drug discovery and development company that is focused on RNA. Our goal is to create important new drug discovery technology platforms that will improve the productivity of the pharmaceutical industry and will enable our discovery and development of important new drugs to treat disease and to improve the lives of patients. We have integrated our expertise to create two exciting technologies, antisense and Isis Therapeutics, a robust pipeline of drugs in development and genomics services (GeneTrove™). We are currently seeking the following professionals to join our team.

SCIENTIST / SR. SCIENTIST

Position available for Scientist (BS/MS) or Senior Scientist (Ph.D./equivalent) with expertise in primary cell isolation/culture, to join group participating in the application of antisense technology for functional genomics and therapeutics. Qualified applicants will have a degree in Life Sciences, experience with molecular biology techniques, primary cell isolation and cell culture techniques. Experience with development of in vitro bioassays, molecular pharmacology and signal transduction desired. (Code #429-BG)

SR. SCIENTIST BIOCHEMISTRY / MOLECULAR BIOLOGY

GeneTrove Antisense Lead Identification Group seeks Ph.D. level Biochemist or Molecular Biologist to develop a high throughput assay for quantitation of target mRNA. Experience in mRNA analysis including real time RT-PCR required. Experience with novel nucleic acid based assays and high throughput screening desired. Successful candidate will join fast-paced team exploiting the human genome sequence for drug target validation. (Code #430-SF)

Isis offers competitive salaries and excellent benefits. Please send resumes to: **Isis Pharmaceuticals, Code _____, 2292 Faraday Ave., Carlsbad, CA 92008;**
Fax: (760) 603-2700; E-mail: resume@isisph.com. Principals only.
No phone calls, please. EOE.

 **ISIS PHARMACEUTICALS**

Cardiovascular Scientist



The Procter & Gamble Company has an opening for a Ph.D. with a specialty in cardiovascular physiology or pharmacology to be located at P&G's new, state-of-the-art Health Care Research Center in Cincinnati, Ohio.

Your Qualifications

A Ph.D. or D.V.M. degree with expertise in cardiovascular physiology or pharmacology is required. Experience with acute and chronic in vivo cardiovascular models is essential. Post-doctoral experience in a cardiovascular discipline is desirable. Strong written and oral communication skills are also required.

Your Challenges

The primary role of this individual will be to conduct research as part of a multi-functional cardiovascular drug discovery team. Managing independent research projects and research assistants are essential skills in this position.

Procter & Gamble

We are a Fortune 20 company that has been consistently rated as one of the "most admired" corporations in the U.S. Our support for research and development has increased substantially in recent years, with growing emphasis being placed in expanding the Health Care area. This is evidenced by our recent construction of a world class Health Care R&D facility outside of Cincinnati, Ohio. In addition, our top-rated benefits package serves to support the company's commitment to obtain and retain the best qualified scientists.



If you meet the qualifications for this position, please apply online at

www.pg.com/jobs/apply_now and reference ad code [NAUSR0001033](#).

No agency referrals, please. Applicants must be presently authorized to work in the U.S. on a full-time basis.

An Equal Opportunity Employer

Ph.D. & BS/MS Openings in Bioinformatics



The Procter & Gamble Company has two openings: a Ph.D. and a BS/MS, in bioinformatics, located at P&G's new state-of-the-art Health Care Research Center in Cincinnati, Ohio.

Your Qualifications

A Ph.D. or a BS/MS degree in bioinformatics, molecular biology/biochemistry or computer science is required. Background in molecular biology, computational and mathematical skills, and experience in using computational tools to analyze gene expression data is necessary. Applicants should have user-level experience with UNIX, relational databases and a scripting language.

Your Challenges

The major responsibilities include analyzing complex gene expression studies, database management and mining, sequence analysis and pathway mapping, and visualization software maintenance to support ongoing discovery of novel genes and proteins.

Procter & Gamble

We are a Fortune 20 company that has been consistently rated as one of the "most admired" corporations in the U.S. Our support for research and development has increased substantially in recent years, with growing emphasis being placed in expanding the Health Care area. This is evidenced by our recent construction of a world class Health Care R&D facility outside of Cincinnati, Ohio. In addition, our top-rated benefits package serves to support the company's commitment to obtain and retain the best qualified scientists.



If you meet the qualifications for these positions, please apply online at www.pg.com/jobs/apply_now and reference ad code [NAUSR0001032](#) for Ph.D. opening and [NAUSR0001080](#) for BS opening.

No agency referrals, please. Applicants must be currently living in North America and authorized to work in the U.S. permanently. An Equal Opportunity Employer

Constellations in Biotechnology

Rensselaer seeks outstanding faculty candidates for chaired senior- and junior-level professorships.

Three faculty constellations in Biotechnology have been established in the following areas of specialization:

Functional Tissue Engineering

Synthesis, biocompatibility, and function of engineered tissue using multi-level approaches

Integrative Systems Biology

Interactions within and between levels of biological organization

Biocatalysis and Metabolic Engineering

Applications and understanding of enzymatic reactions and metabolic pathways

Rensselaer Polytechnic Institute offers a dynamic research and educational environment with an exceptional opportunity for growth.

The Rensselaer Plan, the Institute's newly completed strategic plan for the next decade, calls for major increases in our thriving research program with particular emphasis on Biotechnology and Information Technology.

Constellations of Excellence

To substantially increase our activity in these areas, Rensselaer is creating a total of six constellations, three in Biotechnology and three in Information Technology. Each constellation will consist of a distinguished senior-level chaired professor and two junior-level chaired professors. The constellations will build new research programs in areas complementary to existing strengths.

In support of an enlarged research program, Rensselaer will break ground in 2002 for new dedicated research centers for biotechnology, interdisciplinary studies, and electronic arts.

Building on a Strong Foundation

Rensselaer, a pioneer in interdisciplinary research, maintains world-class programs supported by strong industrial partnerships in a variety of fields. Programs related to biotechnology include biochemistry, bioinformatics, biophysics, bioprocessing and bioseparations, biostructure, computational biotechnology, medical imaging, image and signal processing, nanotechnology, and polymer synthesis.

Rensselaer is nationally recognized for leadership in the development of the interactive studio format and distance education. An innovative academic curriculum in biotechnology will provide an exciting course of interdisciplinary study.

Rensselaer Polytechnic Institute

Rensselaer Polytechnic Institute, founded in 1824, is the nation's first technological university. A nonprofit, nonsectarian institution, Rensselaer enrolls 9,500 undergraduate and graduate students at campuses in Troy, New York; and Hartford, Connecticut. It offers graduate and undergraduate degrees in engineering, the sciences, information technology, architecture, management, and the humanities and social sciences. U.S. News & World Report places it among the top 50 national research institutions, and in the top 20 universities for both graduate and undergraduate engineering.

How To Apply

Candidates for the senior positions should possess outstanding records of research accomplishments and leadership, interdisciplinary inquiry, strategic vision, and educational innovation. All applicants should send a curriculum vitae and a list of suitable references, indicating **Code SM-BIO** to:

Professor Georges Belfort, Chair

Biotech Constellation Search Committee
210a Ricketts Building
Rensselaer Polytechnic Institute
110 Eighth Street
Troy, New York 12180-3590
(518) 276-2885 / fax (518) 276-6412
e-mail gutmas@rpi.edu



Rensselaer

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La Jolla Pharmaceutical Company

La Jolla Pharmaceutical Company is emerging as the leader in targeting antibody-mediated diseases. Our research offers the promise of minimal nonspecific effects on the immune system, while delivering selective therapies that are designed to target and eliminate disease at the source. To complement this strategy we are now accepting applicants for the following positions:

Senior Immunopharmacologist:

This position will assume primary responsibility for designing, executing and analyzing pharmacological experiments in autoimmune disease models to validate novel therapeutic targets, assess mechanism of action and define efficacious doses. This individual would assume responsibility for vivarium operations staff as well as laboratory staffs. Candidates experienced in drug discovery and development with a background in B cell immunology and autoimmune diseases is a plus.

The ideal candidate should be extremely motivated and organized with a strong interest in drug discovery who thrives in a collaborative, highly interactive environment. Candidates must have demonstrated outstanding oral and written communication skills and possess the ability to work independently and manage groups. Requires a Ph.D., postdoctoral experience, 5+ years experience subsequent to postdoctoral training, background in pharmacology, immunology, transgenic animal production and breeding strategies, immunological disease models, and publications in high quality journals. Individuals with significant academic accomplishments who are considering transitioning to a biotechnology environment are encouraged to apply. *Refer to Job Code SI-S04*

Senior Molecular Immunologist:

This position will assume primary responsibility for leading a genomics-based therapeutic drug target discovery effort. And, be primarily responsible for cloning and expressing proteins of therapeutic interest and collaborating with other scientists to identify and validate novel therapeutic targets. Candidates experienced in drug discovery and development with a background in B cell immunology and autoimmune diseases is a plus.

The ideal candidate should be extremely motivated and organized with a strong interest in identification and validation of novel therapeutic targets, someone who thrives in a collaborative, highly interactive environment. Candidates must have demonstrated outstanding oral and written communication skills and possess the ability to work independently and manage groups.

Requires a Ph.D., postdoctoral experience, 5+ years experience subsequent to postdoctoral training, background in molecular immunology and immunogenetics, extensive experience with cloning and expression systems, familiarity with genomic-based drug discovery. Individuals with significant academic accomplishments who are considering transitioning to a biotechnology environment are encouraged to apply. *Refer to Job Code SMI-S04*

Qualified candidates should Email, fax or send resumes including salary history to:

La Jolla Pharmaceutical Company
6455 Nancy Ridge Drive
San Diego, CA 92121
FAX: (858) 625-0155
Email: HUMAN.RESOURCE@LJPC.COM

No phone calls please
EOE

The Centre for Scientific Computing

Director

The University is establishing a new Centre for Scientific Computing which will be inter-disciplinary in nature. In its initial phases, the University will provide up to six academic and technical staff positions to launch this development. The first step is to seek a Director at Professorial level. The Director will be closely involved in appointing other colleagues and will be expected to develop the Centre, shape its intellectual profile and nurture its growth into a major research enterprise. It is also intended that the Centre will become involved in graduate education. You should have an international reputation for research, a significant proportion of which is computationally intensive, and a broad vision for the development of computationally-based research in the sciences, engineering and other academic areas.

You will be attached to a particular Department although their role will be primarily within the Centre. Currently the seven Departments engaged in the Centre's development are Biological Sciences, Chemistry, Computer Science, Engineering, Mathematics, Physics and Statistics. However, applicants from any area are encouraged to apply.

Salary will be within the Professorial range.

For further information see <http://www.warwick.ac.uk/fac/sci/ScientificComputing/index.htm>

Informal enquiries about the post may be made to Professor Stuart Palmer, Chair of the Search Committee (tel: 024 7652 3399; e-mail: S.B.Palmer@warwick.ac.uk).

Further particulars can be obtained from the Personnel Office, University of Warwick, Coventry CV4 7AL (tel: 024 7652 3627; e-mail: recruit@admin.warwick.ac.uk) and from jobs.ac.uk/jobfiles/AC1076.html. Applications (3 copies) should name three referees. Please quote reference 35/3A/00/NAT.

Closing date for applications is 11 May 2001.

UNIVERSITY OF
WARWICK

nature immunology

seeks an ASSISTANT EDITOR

Nature Immunology is a prestigious international monthly journal covering all aspects of immunology. We have an exciting opportunity available for an immunologist eager to enter the editorial world. *Nature Immunology* needs an Assistant Editor to help develop all aspects of the journal. Working closely with the *Nature Immunology* team, the Assistant Editor will be responsible for peer review and manuscript selection; commissioning of Reviews, Commentaries and News & Views; writing and editing. Close ties with the immunology community will be forged and maintained through travel to international meetings and visits to individual laboratories. Applicants should have a Ph.D. and post-doctoral experience with a strong research background in immunology, an intense curiosity and broad understanding of the field. The ideal candidate will have excellent literary skills and an enthusiasm for, and commitment to, the communication of science.

Based in our central New York City office, the *Nature Immunology* team is part of a dynamic editorial and publishing environment that includes *Nature Genetics*, *Nature Structural Biology*, *Nature Medicine*, *Nature Biotechnology* and *Nature Neuroscience*. The successful applicant will also enjoy a close working relationship with the London-based *Nature* and *Nature Cell Biology* teams.

To apply, please submit a CV, a short (700-900 words) News & Views-style article on an exciting and newsworthy recent development in any area of immunology and a short cover letter explaining your interest in the post to Dr. Linda J. Miller, Editor, *Nature Immunology*, Nature America, 345 Park Avenue South, New York, NY 10010 (fax 212 696.9594; email admin@natureny.com) to arrive as soon as possible and **not later than 20 May 2001**.

Professor in Applied Mathematics

at the Swiss Federal Institute of Technology Lausanne (EPFL)



The EPFL plans a substantial expansion in the basic sciences, including a significant reinforcement in mathematics, physics, and chemistry, and a major new effort in the life sciences.

As part of this broad program, the Mathematics Department has an opening at the full professor level. Applications for appointments at the Associate and Assistant Professor (tenure-track) levels will also be considered. We seek outstanding individuals in all areas of applied mathematics.



Applications in discrete mathematics and statistics are particularly encouraged. Successful candidates must develop an independent, internationally recognized program of scholarly research and must be willing to teach at both the undergraduate and graduate level. Substantial start-up resources will be provided. Women candidates are strongly encouraged to apply.

More information about EPFL and its Department of Mathematics at

<http://www.epfl.ch> and <http://dmawww.epfl.ch>.

Applications, including CV, publication list, concise statement of research interests (3 pages or less) and three letters of reference, should be sent by August 31, 2001 to:

Professor Gerard Ben Arous
Chairman of the Search Committee
Department of Mathematics
Ecole polytechnique fédérale de Lausanne (EPFL)
CH-1015 Lausanne, Switzerland

Consulting Scientist Work from Home (Multiple positions available)

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InGenuity Systems, a dynamic, fast growing pre-IPO company, is currently offering consulting contracts to Ph.D. level biologists (senior Ph.D. students will also be considered) interested in developing a state of the art information resource for life scientists. As a Consulting Scientist, you will review and interpret experimental findings from the leading peer-reviewed journals. You will then enter these findings into our genomics Knowledge Base using our standardized information language. You will work from the comfort of your own home, in your own time and be your own boss. To qualify, you must have access to a computer with Internet access, email and a printer. Apply online at www.ingenuity.com for the Consulting Scientist position OR refer a friend and earn \$100 (details on our web site).

GENUITY™
S Y S T E M S

POST-DOCTORAL POSITIONS

Our Research Center in Indianapolis is the Roche Global Center of Excellence for Drug Monitoring. Our continuing success is based upon the strength of our innovative research, through the study of fundamental biochemical, physical, and chemical processes. The leverage provided by Roche allows us to aggressively pursue novel ideas in a manner that ensures the greatest possibility for success. Currently, we have two positions available for Post-Doctoral Scientists comprising research in

- The application of **Polymer Chemistry** to the generation of **surfaces having defined properties**; and
- **Organic Chemistry** in the area of **Chiral Synthesis** directed toward the generation of **optimized enzyme inhibitors**.

Our strong commitment to interdisciplinary relationships provides a diverse environment in which concepts and ideas come to fruition, yielding broad opportunity to publish scientific discoveries. These positions are available for Ph.D. scientists who have direct experience in these areas and have received their degree in Chemistry, Chemical Engineering or a related field, and are seeking a challenging program in the context of a growing industrial sector.

Who to contact

For immediate consideration, please send your CV and three letters of recommendation to: **Roche Diagnostics Corporation, 45PDR, 9115 Hague Road, Indianapolis, IN 46250-0457**. For more information on the scope and objectives of these positions, please contact **A.B. Shansfelt, Ph.D., Director, Drug Monitoring Research**, at: armen.shansfelt@roche.com. Roche is committed to providing equal opportunity to a diverse workforce.



Roche is a world leading research-based health care organization with principal businesses in pharmaceuticals, diagnostics, vitamins, fragrances and flavors. Roche products and services address prevention, diagnosis and treatment of diseases, thus helping people live better lives.

At Roche Diagnostics Corporation we're using our Vision and Values to make a difference. Based in Indianapolis, we are the North American headquarters for Roche's diagnostics business. We are comprised of a dynamic force of individuals who together are enhancing the well being of people and their quality of life. Those with a competitive spirit and commitment to Roche and its customers will find an unmatched environment offering development opportunities and personal rewards.

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**UNIVERSITY OF SOUTHERN MAINE
BIOSCIENCE RESEARCH INSTITUTE**

The University of Southern Maine (USM) invites nominations and applications for principal investigators in the newly formed Bioscience Research Institute. These are the first of several to be recruited in the next few years. Core funding comes from the State of Maine and USM.

The positions provide the opportunity for senior investigators to join a new research institute formed as part of an aggressive effort by USM to develop bioscience research, including the construction of a new research wing. The Bioscience Research Institute was formed to create a research community, to foster collaborative research, and to facilitate participation of USM faculty in delivering the University of Maine collaborative Ph.D. degree program in molecular genetics. Area partners and collaborators include the Maine Medical Center Research Institute, the Foundation for Blood Research, and several biotechnology companies.

Successful applicants will have a doctoral degree in a relevant science, have an active and well-developed research program, have current research funding, and a history of funding for research in the broadly defined area of modern and interdisciplinary bioscience. They will be encouraged to seek collaborations among USM faculty as well as among area partners. Mentoring of postdoctoral fellows and graduate students will be part of the position. We hope to attract candidates who share a commitment to diversity, tolerance and an active examination of ideas that can provide our students with a greater understanding of the richness and complexity of our society.

Faculty appointments will be made as research faculty with rank and salary commensurate with experience and competitive at a national level. Appointment in an academic department in tenure track, or as tenured, is negotiable.

Submit a letter of interest and include a curriculum vitae highlighting research accomplishments and funding records, and the names and addresses of three references to: **Director, Bioscience Research Institute, 106 Science Building, RE: 101, University of Southern Maine, PO Box 9300, Portland, ME 04104-9300. www.usm.maine.edu.** Review of applications will begin immediately and continue until positions are filled. Start date is negotiable.

**The University of Chicago
Pritzker School of Medicine
Faculty Position in Microbiology/Infectious Diseases**

The Division of Infectious Diseases in the Department of Medicine and The Committee on Microbiology invite applications for a faculty position in Microbiology. This search is aimed at identifying outstanding investigators in virology. Applications at all levels (Full Professor, Associate and Assistant Professor) will be considered. Applicants must have a M.D. degree with training in internal medicine and infectious diseases (board certification). We are interested in recruiting investigators of human retroviruses, however applications from scientists studying other human viruses are also invited. Additional information about this position can be obtained from Dr. Olaf Schneewind (oschnee@delphi.bsd.uchicago.edu), Dr. Bernard Roizman (bernard@cummings.uchicago.edu) and Dr. Paul Arnow (parnow@uchospitals.edu).

Applicants should send a curriculum vitae, statement of research interest and at least three letters of recommendation to:

**Dr. Olaf Schneewind
Chair of the Search Committee
115F Cummings Life Science Center
920 East 58th Street
Chicago, IL 60637**

**THE UNIVERSITY
OF CHICAGO**

The University of Chicago is an Affirmative Action/Equal Opportunity Employer



Yale UNIVERSITY

**Department of Molecular, Cellular
and Developmental Biology**

The Molecular, Cellular and Developmental Biology Department of Yale University invites applications for a tenured appointment at the level of **Associate or Full Professor in the area of Chemical Biology of Signalling Pathways**. We seek scholars with a record of outstanding achievement in research, who are also accomplished teachers at both the undergraduate and graduate level. Candidates should have a breadth of expertise in the chemistry and biochemistry of signalling pathways and a thorough understanding of cell biology.

Additional information on the Department of Molecular, Cellular and Developmental Biology and the research interests of its faculty can be found on our web site: <http://www.mcdb.yale.edu/>.

Please send curriculum vitae, description of research interests and at least three letters of recommendation by July 3, 2001, to: **Chemical Biology of Signalling Pathway Search, c/o Chair, MCDB Department, Yale University, P.O. Box 208103, New Haven, CT 06520-8103. Yale University is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are especially encouraged to apply.**

Vermont Cancer Center
at the University of Vermont

**CELL SIGNALING RESEARCH PROGRAM LEADER
The University of Vermont
College of Medicine
Department of Pathology/Vermont Cancer Center**

The Vermont Cancer Center and the Department of Pathology in the University of Vermont (UVM) College of Medicine are seeking an investigator at the Associate or Full Professor level to lead an established program in cancer-related cell signaling and growth control research. Current funded areas of investigation include signaling in environmental carcinogenesis, cell proliferation, metastasis, apoptosis, cell cycle checkpoints, and fibrosis and premalignant conditions. We are particularly interested in individuals with funded research programs focused on translation of basic knowledge in signaling research from laboratory model systems to treatment and prevention through targeted therapies. Interested individuals should have an MD, Ph.D., or equivalent, an established research program, proven leadership skills, and a strong record of achievement and recent productivity in cancer research. The Vermont Cancer Center is an NCI-designated Comprehensive Cancer Center with a highly interactive faculty, new research laboratories, contemporary core facilities, and significant private foundation support. The Department of Pathology supports basic research in environmental pathology, lung biology, cancer cell biology and cardiovascular biochemistry. The UVM College of Medicine supports a wide range of basic and clinical research activities with approximately \$40M in grant funded research activity per year.

Applications will be accepted until position is filled, however we strongly encourage submission of materials by June 1, 2001. Please send your curriculum vitae and three references to **David W. Yandell, Sc.D., VCC Cell Signaling Search Committee, Vermont Cancer Center, University of Vermont, Burlington, VT 05405. Applications are encouraged from women and individuals of diverse racial, ethnic, and cultural backgrounds.**

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UofL Health Sciences Center

Assistant Professor Molecular Biology of Cell Death/ Neuroimmunology of CNS Injury

The Kentucky Spinal Cord Injury Research Center at the University of Louisville School of Medicine is seeking to fill a tenure track faculty position in the areas of the molecular biology of cell death and/or the immunology of CNS injury. All areas of research that fall under these broad areas will be considered. The Assistant Professor will join existing faculty with expertise in CNS injury and regeneration, stem cells, and spinal cord motor and sensory systems. Primary appointment will be in the Department of Neurological Surgery with a joint appointment in an appropriate basic science department. A competitive start up package, salary, and benefits will be provided. A substantial endowment will support this position in perpetuity. Applicants should have a Ph.D. and/or M.D. with at least 3 years of post-doctoral experience.

Send curriculum vitae, a brief letter of research direction(s), and the names of a least 3 references to: **Christopher B. Shields, M.D., Professor and Chairman, Department of Neurological Surgery, University of Louisville, 210 E. Gray St., Suite 1102, Louisville, KY 40202.**

*The University of Louisville is an Equal Opportunity/
Affirmative Action Employer and encourages applications
from women and minority groups.*



University of Virginia HEALTH SYSTEM

ASSISTANT PROFESSOR OF MEDICAL EDUCATION IN MICROBIOLOGY

University of Virginia
School of Medicine
Charlottesville, Virginia

The Department of Microbiology seeks an individual with experience in the teaching of microbiology or related areas and exceptional organizational and communication skills. The position as Assistant Professor of Medical Education in Microbiology is a tenure-ineligible faculty position that provides the opportunity to develop new initiatives in medical and graduate student teaching. The Department of Microbiology at the University of Virginia offers an outstanding environment for research and teaching with significant resources to promote development of innovative approaches to the teaching of microbiology and related disciplines. The successful candidate will serve as Course Coordinator of the Medical Microbiology course given to second year medical students. This is a lecture-, laboratory- and web-based course that is team taught by both basic scientists and clinicians. In addition it is anticipated that he/she will function to coordinate and develop existing and new graduate level courses in immunology, bacterial and viral pathogenesis, and molecular and cellular microbiology.

The successful candidate will hold an MS or PhD in Microbiology, Cell or Molecular Biology or related discipline and have demonstrated excellence in teaching. Experience teaching Microbiology is preferred but not necessary.

Candidates should provide a letter describing past teaching experience, curriculum vitae, and names and addresses of 3 references by June 1, 2001 to: **Search Committee, Attn: Elizabeth Hupp, Department of Microbiology, University of Virginia School of Medicine, Box 800734 Health System, Charlottesville, VA 22908. Email: ehh2e@virginia.edu Fax: 804-982-1071**

The University of Virginia is an equal opportunity/affirmative action employer.



The Face of Pfizer

The best is getting even better! As the world's largest pharmaceutical research enterprise, Pfizer is dedicated to providing the best innovations in medicine while pursuing tomorrow's discoveries in research and development. With an R&D budget of \$4.7 billion, our team has spurred Pfizer's

exceptional performance in 30 countries and across 6 continents. If you share our dedication to discovering, developing and delivering medicines to improve the health of both people and animals worldwide, we want yours to be the newest Face of Pfizer. Picture yourself in the following opportunities at Pfizer Global Research and Development facilities in La Jolla, California, and Groton, Connecticut.

Research Scientist, Crystallography (La Jolla)

We are seeking a highly motivated crystallographer to join the molecular structure group at PGPD, La Jolla (formerly Agouron Pharmaceuticals). In this role, you will work alongside other scientists in interdisciplinary drug discovery projects targeting viral pathogens, diseases of the eye, cancer, diabetes and obesity. The ideal candidate will have a PhD in Macromolecular Crystallography with demonstrated expertise in protein structure determination and analysis, familiarity with molecular biology and an interest in crystallographic software. Req. #01-0421-5V110HP

Sr. Scientist, Drug Safety Evaluation (La Jolla)

We currently have an opening for a PhD-level scientist to support drug discovery and development by establishing safety pharmacology assays. This position requires a PhD in Pharmacology (or related field), 3+ years of relevant lab experience, and a solid knowledge of *in vivo* and *in vitro* safety pharmacology studies, including cardiac electrophysiology, HERG binding assays and telemetered studies. Req. #01-0367-421GS

Assistant Scientist I - Biology (Groton)

In this role, you will perform *in vitro* experiments in projects directed toward the discovery of novel drugs used for the treatment of neurodegenerative diseases. Responsibilities include preparing primary neuronal cultures and using techniques such as biochemical assays of neurotransmitter uptake, enzyme activity and neuronal cell death. Additionally, you will analyze drug effects in assays of neurotoxicity and neurotrophic activity, using morphometric and imaging techniques combined with biochemical assays. This position requires a BS, 1-2 years experience (MS and 3+ years preferred), and demonstrated expertise in the preparation of primary neuronal cultures. Req. #00-0007872

Assistant Scientist I - Biology (Groton)

Participating in research projects aimed at the discovery of novel CNS drugs, you will perform patch and voltage clamp recording from a variety of cell lines, *Xenopus* oocyte, primary neurons and slice preparations. Additional studies will involve *in vivo* imaging/physiology experiments. You must have a BS (MS preferred), 1-2 years experience in a drug discovery environment, and an in-depth knowledge of biochemistry assays (Westerns, ELISA) or other interdisciplinary neuroscience skills. Desired experience includes *in vitro* electrophysiology from neurons, cell lines or oocytes, and physiology using imaging techniques (confocal/nonconfocal). Req. #00-0007085

Pfizer offers an exceptional work environment complete with training opportunities designed to develop your professional talents. We encourage all applicants to apply by emailing your resume, indicating the appropriate Req. # in the subject field, to SCI@pfizerresumes.com. If necessary, you may also mail your resume, indicating Req. #, to Pfizer Resume Processing Center, 630 Boston Road M-104, Billerica, MA 01821, Attn: Softshoe Resumes. An equal opportunity employer, Pfizer offers a workplace rich with diversity and potential.



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Physiology - School of Biomedical Sciences

Australia

The Physiology and Pharmacology Unit of the School of Biomedical Sciences is responsible for undergraduate and postgraduate teaching in Medicine, Pharmacy, Occupational Therapy, Science, Biomedical Science, Animal Science, Sport and Exercise Science and Nursing Science, and maintains an active research profile. Current research interests include neurophysiology and pharmacology, cardiovascular physiology and pharmacology, receptor pharmacology, endocrine and developmental physiology, reproductive physiology, comparative physiology and biochemistry, and stress.

Lecturer - Cairns (Reference number 1047)

Lecturer - Townsville (Reference number 1048)

The School seeks two Physiologists (one in Townsville and one in Cairns) with experience in teaching across a range of systems. The appointees will be required to teach in a variety of undergraduate degree programs, including associated administrative duties, assist with curriculum development and pursue an active research program. Applicants must have a PhD or equivalent, and teaching experience in a tertiary institution. The provision of a teaching portfolio would be an advantage. Preference may be given to candidates with research interests and teaching experience in renal, respiratory or cardiovascular physiology. The appointees will be expected to take up duty by 30th July 2001. Applicants should indicate their preferred location.

Enquiries to: Associate Professor Lee Fitzpatrick, telephone +61 7 4781 4168, e-mail Lee.Fitzpatrick@jcu.edu.au

Employment Type: Appointments will be on a continuing basis subject to a probationary period.

Salary: Lecturer - Academic Level B - AUD\$50,334 - AUD\$59,558 per annum. Benefits include employer superannuation contribution, attractive options for salary packaging and generous relocation allowances where applicable.

Information packages including selection criteria and application procedures may be obtained from <http://jobs.jcu.edu.au/> or by contacting the Recruitment Officer, Faculty of Medicine, Health and Molecular Sciences, James Cook University, Townsville Qld 4811, Australia. Telephone: +61 7 4781 6209; Facsimile: +61 7 4781 4655; e-mail Adele.Goalder@jcu.edu.au

Applications close on 18 May 2001. Please quote the appropriate reference number.

Equal Opportunity in Employment is University Policy

The University reserves the right to appoint by invitation or not to make an appointment.

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JAMES COOK UNIVERSITY



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PARADIGM:



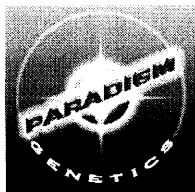
THE FUSION OF SCIENCE AND TECHNOLOGY

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As a leader in functional genomics, Paradigm Genetics is industrializing the process of gene function determination for product development in four major sectors of the global economy: crop production, nutrition, human health, and industrial products. Our fusion of state-of-the-art science and leading-edge bioinformatics continues to give professionals like you a chance to shape a major multimillion dollar industry. You already possess the vision. You know you have the ability. And now you have the chance to contact us today.

Associate/Senior Associate Scientist

This position will join our assay development group and be responsible for the design and development of HTS assays for our novel targets. Experience with various enzymes, receptor binding, cell based and ELISA assays required as well as at least a working knowledge of expression systems and various purification methods. A BS/MS with at least 3 years of industrial experience is required. **Sciencemag #305**



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Paradigm Genetics is industrializing the process of gene function determination for four major sectors of the global economy: nutrition, crop production, industrial products, and human health.



MAYO CLINIC POSTDOCTORAL POSITIONS

NIH-funded postdoctoral positions are available immediately to work in the area of DNA damage-signaling pathways and cancer biology. The lab currently focuses on the biochemical and molecular aspects of breast/ovarian cancer and the roles of tumor suppressor genes p53, Chk2, BRCA1/BRCA2 and the DNA damage-signaling pathway in tumorigenesis. The approaches we are using range from mammalian cell culture, molecular biology to mouse and yeast genetics. A strong background in molecular and cellular biology is essential. We are seeking candidates who are self-motivated and career-oriented. The research environment at Mayo Clinic is excellent. Prospective applicants are encouraged to contact me by e-mail at **Chen.junjie@mayo.edu** or letter to

Junjie Chen, Ph.D.
Department of Oncology
Guggenheim Building, Room 1342
Mayo Clinic
200 First Street, SW
Rochester, MN 55905
See also: <http://www.mayo.edu/research/>

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

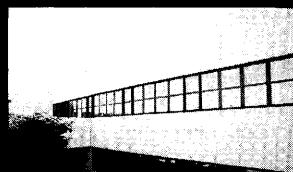


The Barcelona Science Park is a newly created research institution of excellence located adjacent to the University of Barcelona campus. The Park brings together institutes of academic research and R&D units from private industry on a newly constructed site of 22,000m². Equipped with state-of-the-art research support services, the Park fosters interdisciplinary research, principally in the field of biomedicine.



To achieve its aims, the Barcelona Science Park is structured around four basic pillars:

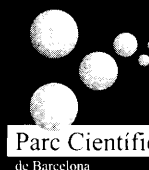
- Institute for Biomedical Research and other research and development units
- Business research, development and innovation units
- A Business Innovation Centre
- Top quality research support infrastructures



Barcelona Science Park
C/ Baldri Reixac, 10 -12
08028 Barcelona, Spain.
Phone: 34 93 402 90 60
Fax: 34 93 402 90 63
administracio@pcb.ub.es
<http://www.pcb.ub.es>

Barcelona Science Park

Positions Open



The **Institute for Biomedical Research**, the main basic research institute of the Barcelona Science Park, is seeking Assistant, Associate and Full members to lead their own research groups, and Programme Directors to head the research programmes to which the Institute is devoted.

Cell and Developmental Biology Programme Ref. CDB

- Signaling networks of the cell
- Genome integrity and gene expression control
- Embryo development and tissue regeneration

Structural and Computational Biology Programme Ref. SCB

- Structural analysis of macromolecular interactions
- NMR (800 MHz) and x-ray diffraction platforms
- Molecular modelling and computational drug design

Chemistry and Molecular Pharmacology Programme Ref. CMP

- Design and synthesis of biologically active compounds
- Target-directed screening of chemical libraries
- Drug-target interactions

Molecular Medicine Programme Ref. MM

- Molecular basis of metabolic and genetic diseases
- Genomic and proteomic approaches to disease analysis
- Translational research through interface with partner clinical institution

MEMBERS

(for all programmes)

WE REQUIRE:

- A solid track record of research accomplishments
- A future research plan of scientific and institutional interest
- Strong research training and leadership skills

WE OFFER:

- A generous start-up package and laboratory space
- Appointment at the Assistant, Associate or Full member level according to professional experience
- A newly built research facility
- State-of-the-art core facilities and technological platforms
- A dynamic and interactive scientific atmosphere
- Links to clinical and industrial partners
- A privileged location in one of the most dynamic areas of Barcelona

PROGRAMME DIRECTORS

(for CMP, SCB, MM)

WE ADDITIONALLY REQUIRE:

- Strong managerial skills
- Extensive knowledge of international scientific affairs
- A vision of new scientific opportunities

WE ADDITIONALLY OFFER:

- An opportunity to coordinate scientific activities beyond own research project
- An opportunity to implement new technological platforms

Interested scientists should submit an application including a CV, a description of previous accomplishments (3 pages), a future research plan (3 pages) and letters of reference (3 for Assistant, 6 for Associate and 9 for Full members and Programme Directors).



Senior Scientists Developmental Biology and Clinical Nutrition Arkansas Children's Nutrition Center

The Arkansas Children's Nutrition Center (ACNC) is one of six US Department of Agriculture human nutrition research centers funded through the Agriculture Research Service. It is located in a new building on the campus of Arkansas Children's Hospital (ACH), the sixth largest pediatric tertiary care center in the country. ACH is the pediatric clinical arm and teaching hospital for the University of Arkansas for Medical Sciences.

The ACNC is focusing on the effects of diet and nutrition on brain function/development and the effects of "functional foods" on growth, development, cognitive function, and prevention of chronic diseases. It is currently seeking established investigators in two areas: Developmental Biology and Clinical Nutrition.

Developmental Biology: We are seeking established investigators with demonstrated research expertise in early development. The successful candidate should be working in the molecular and cellular basis of development, including tissue and cell-type specific gene expression, mechanisms underlying maternal-embryo/fetal communication, and identification of novel target genes that might underlie cellular differentiation. The basic research should include utilization of rodent and large animal models (such as porcine), and there should be a clinical research arm. It is essential that the research methodology employ a diverse array of molecular, physiological and cell biology techniques that are integrated to provide insights into regulatory mechanisms that control growth and development of the whole animal at the tissue, cell and gene levels. The successful candidate must be able to work in a team, as well as maintain an independent research program. Other desirable attributes include demonstrated research expertise in endocrinology, nutrition, diet, functional genomics and/or central nervous system function/development. Applicants must have a Ph.D. and/or M.D., a quality publication record, evidence of NIH, NSF or equivalent funding and demonstrated expertise in: (1) personnel management; (2) budget development and management; (3) communication and writing skills.

Clinical Nutrition: We are seeking an established investigator in the area of Clinical Nutrition to conduct research in the general area of nutrition, diet and development. The successful candidate should utilize as part of their ongoing research those procedures and equipment that are state-of-the-art for outstanding clinical nutrition studies in children, such that they could establish and oversee those facilities necessary for conducting high quality clinical research at the ACNC. This would include the laboratories for nutrition assessment, body composition and clinical nutrient analyses. The successful candidate will provide leadership in providing the standardized basis for all human nutrition studies and will supervise a well-trained staff. Applicants must have a Ph.D. and/or M.D., a quality publication record, evidence of NIH, NSF or equivalent funding, and demonstrated expertise in: (1) nutrition assessment, including all aspects of body composition; (2) coordinating clinical/applied studies; (3) personnel management; (4) budget development and management; (5) subject recruitment; (6) communication and writing skills.

The ACNC has excellent facilities for both clinical and basic investigations, including: a new 6 bed clinical research unit; body composition laboratory; child neuroelectrophysiology lab; large and small animal facilities; and new, well-equipped wet labs. The salary and start-up packages are competitive and long-term base funding is available.

Please submit curriculum vitae, two-page summary of research interests, and the names of three references to: **Dr. Thomas M. Badger, ACNC Director, 1120 Marshall Street, Little Rock, AR 72202. E-mail: badgerthomasm@uams.edu.**



THE UNIVERSITY OF NEW ORLEANS and the AUDUBON NATURE INSTITUTE announce an ENDOWED CHAIR in AQUATIC or TERRESTRIAL RESOURCE CONSERVATION



The University of New Orleans invites nominations and applications for the Greater New Orleans Foundation Endowed Chair in Aquatic or Terrestrial Resource Conservation. The successful candidate will have a demonstrated record of scientific achievement in a biological field relevant to the study and conservation of aquatic or terrestrial resources, such as reproductive biology, development or genetics, with an emphasis on molecular biology.

The Endowed Chair will establish a dynamic and innovative basic research program that will contribute to the conservation of endangered resources. The candidate's program should (1) provide new basic scientific information, suitable for publication in leading journals, (2) be appropriate for training students in the Conservation Biology Ph.D. Program at UNO, (3) be competitive for federal grant support, and (4) be applicable to efforts aimed at restoration of threatened or endangered aquatic or terrestrial species.

The Chair will be appointed to the faculty in the Department of Biological Sciences at the University of New Orleans, will participate in teaching and the direction of graduate students, and will assume a leadership role in the Ph.D. program in Conservation Biology. The Chair will conduct research at the nearby Audubon Center for Research of Endangered Species and at the University of New Orleans.

Candidates should have credentials appropriate for appointment at the rank of Professor, but exceptional candidates at the rank of Associate Professor will also be considered. For more information, see <http://www.uno.edu/~bios>.

We expect to fill the position with a start date of Fall 2001. Send nominations or applications including: curriculum vitae, statement of research interests, and contact information for five references to:

**Endowed Chair Search Committee
Department of Biological Sciences
University of New Orleans
Lakefront Campus
New Orleans, LA 70148**

The University of New Orleans is an equal opportunity/affirmative action employer.

Prostate Cancer Research The Vattikuti Urological Institute Henry Ford Hospital and Health Sciences Center

The Vattikuti Urological Institute, newly created with philanthropic support, is seeking to expand its already active Prostate Cancer Research Program by recruiting three to five Senior Scientists at the level of Assistant Professor, Associate Professor, or Professor. Preference will be given to candidates with research programs in cell biology, molecular biology, molecular endocrinology, or pathology. Candidates must have a Ph.D., M.D., or M.D., Ph.D., must have completed postdoctoral training, and must have demonstrated potential as an independent investigator. Candidates are expected to maintain a well-funded research program. The Vattikuti Institute Research Laboratories comprise about 10,000 square feet of newly built laboratories, and \$7,000,000 in existing research funding. Attractive start-up packages with tenure equivalency will be offered.

Please send a letter describing your research interests, and include your curriculum vitae and the names and contact information of at least three references, to: **Evelyn R. Barrack, Ph.D., Director of Urology Research, Vattikuti Urological Institute, Henry Ford Hospital and Health Sciences Center, One Ford Place, Room 2D26, Mailbox 93, Detroit, MI 48202-3450, or to Mani Menon, M.D., Director, Vattikuti Urological Institute, Henry Ford Hospital, K9, 2799 W. Grand Blvd., Detroit, MI 48202-2689**

Applications are encouraged from women and individuals of diverse racial, ethnic, and cultural backgrounds.

Group Leader, High Level Cellular Expression

Corsier-sur-Vevey, Switzerland

Serono is a global biotechnology leader. The Company has five recombinant products on the market, Gonal-F®, Ovidrel(le)®, Rebif®, Serostim® and Saizen®. In addition to being the world leader in reproductive health, Serono has strong market positions in neurology, metabolism and growth. The Company's research programs are focused on growing these businesses and on establishing new therapeutic areas. Currently, there are eleven molecules in development.

You will be required to build up and lead our newly formed High Level Cellular Expression group in Switzerland, which will develop state of the art mammalian systems for high level expression of recombinant proteins. This group will act as the centre of expertise for early high-level expression studies within Serono. Initially, you will lead a group of 6-8 people, and be responsible for defining the strategy for this key platform technology, as well as integrating it with other parts of Serono such as discovery, process development and manufacturing.

You should have a PhD in life sciences, and post-doctoral experience in the development of high-level mammalian expression systems (20 pcd or higher). Previous experience within the Biotechnology Industry and working in cross-functional teams would be an advantage. A track record of high impact publications and/or patents is important to underscore the scientific credentials of this position.

We offer excellent employment conditions in a creative and high technology environment. If you are interested in working with a dynamic and professional team and if you feel ready to face a new challenge, please send your resumé to Mrs. Raymonde Geremia, Human Resources, Laboratoires Serono S.A., Zone Industrielle B, 1809 Fenil-sur-Corsier, Switzerland. Email raymonde.geremia@serono.com

www.serono.com

ENVIRONMENTAL LABORATORY MANAGER

Environmental Research & Wildlife Development Agency (ERWDA) is established to assist the Abu Dhabi Government in the protection, conservation and management of the Emirate's natural environment, resources, wildlife and biological diversity through scientific research, proactive planning and coordination, environmental awareness promotion, policy and procedures formulation, and enforcement that balances sustainable economic development with the protection of the environment for this and future generations.

To facilitate achievement of the above, ERWDA is looking for an accomplished individual to become Laboratory Manager. The applicant should provide environmental analysis research, development, consultation, technology transfer, direct response and training support to all centers and other institutions, as required in the general fields of: (a) environmental quality, (b) resource inventory, analysis, evaluation, and management, (c) water quality, (d) pollution prevention, (e) hazardous, toxic and radioactive waste characterization, inventory, treatment and / or disposal, quality assurance, (g) other environmental issues.

The applicant should be able to manage multiple projects, work independently and in team situations with good interpersonal communication skills, organizational skills and an ability to adapt to change.

Responsibilities:

- The manager will provide scientific and administrative leadership for the environment laboratory facility.
- Manage the overall day-to-day operations of the laboratory and testing activities.
- Assure that all laboratory testing is done in accordance with standard methods, and or policies set forth.
- Provide analytical methods development, validation and testing (including laboratory manuals and procedures)
- Participate in regulatory inspection process and work with laboratory and other ERWDA management to provide prompt response to regulatory agency.
- Provide supervision for quality assurance to ensure compliance with GLP in accordance with the established policies and standards.
- Conduct appropriate analysis of data produced, assemble or compile results as directed by protocol and make recommendations based on findings.
- Effectively interface and collaborate with others to ensure ERWDA's vision, mission and goals are achieved.

Minimum Qualification:

- M.Sc. in Analytical Chemistry or Environmental Chemistry. Higher qualifications preferred.
- 10 years experience in environmental laboratory analytical techniques and laboratory management.
- Excellent computer, organizational, communication, and writing skills are essential.
- Proven track record and accomplishments.
- Ability to co-ordinate a number of activities in a team environment.

Benefits:

- Tax-free salary
- Accommodation and Furniture Purchase Allowance
- Paid Leave and Tickets
- Educational Assistance

P.S. Higher academic qualifications and experience are of added value.

Queries:

- e-mail amedani@erwda.gov.ae
- Tel: +971-2-6934-621
+971-2-6934-619

Applications should be mailed to the following address: **Human Resources Manager, P.O.Box 45553, Abu Dhabi, UAE**

Closing Date for applications: May 19th 2001

The Next Technology Revolution

Locus Discovery Inc. is an exciting new biopharmaceutical company specializing in drug discovery using a novel new supercomputer-based computational approach to rapidly design small molecule drugs for protein targets. Our technology compresses into a few weeks what currently takes many years, which enables us to identify new drugs substantially faster, with a much higher success rate, and on a vastly larger scale than has previously been possible. This technology will be one of the most important developments of the post-genomic era. Currently located in Princeton, NJ, we will be relocating to Blue Bell, PA within the next few months. We are seeking candidates for the following positions:

Chemistry - Scientists/Senior Scientists/Group Leaders

We are seeking highly motivated, independent chemistry scientists and group leaders who have a track record of scientific accomplishment to provide chemistry leadership to our highly interdisciplinary scientific teams. Ideal candidates will have excellent communication skills, a Ph.D. in Organic Chemistry, and familiarity with Cheminformatics, protein chemistry, x-ray crystallography, and molecular modeling. Experience in solution phase and solid phase synthesis is expected; experience in parallel synthesis and purification, is desirable. A strong analytic instrumentation (NMR, HPLC, MS) background is required for all positions; familiarity with computer-aided or structure-based design is desirable. Pharmaceutical industry supervisory experience is requisite for the Group Leader positions.

Research Assistants/Associates

Ideal candidates will have a B.S./M.S. degree in Chemistry, appreciable synthetic skills, and the desire to work independently. Experience with and knowledge of modern analytical methods (NMR, LC, MS) is essential. A knowledge of biochemistry, chemical SAR, or pharmaceutical industry approaches desirable.

Director of Biology

Reporting to the VP of R&D, the Director will hire and lead a team (up to 20) of scientists that characterize and optimize the ADME properties of small molecule therapeutics, and demonstrate efficacy in suitable models. The Director will plan and prioritize departmental activities, manage external collaborations, introduce or develop technologies for assessment of drug candidates, possess good communication skills, and display the desire and the ability to work effectively in a highly interdisciplinary team-oriented environment. The individual should be motivated by a strong desire to successfully advance novel therapeutics into the clinical trial stage. Candidate will have a Ph.D. in a field of Biology, minimum of 5 years relevant experience, and a track record of proven success in leading small molecule, preclinical drug discovery activities. Supervisory experience is required, as is broad biological experience across therapeutic areas.

Group Leaders - Biology

Responsible for directing the activities of the scientific staff in the technical areas of Cell Biology, Pharmacology, ADME properties, and Efficacy. Will assist the Director of Biology plan and implement the short- and long-term objectives of the Biology Groups. Will develop technical and collaborative strategies to ensure achievement of scientific objectives. Monitors and evaluates completion of tasks and projects. Will assist with budget projections and adherence. Must have the desire and ability to work effectively in a highly interdisciplinary, team-oriented environment. These individuals should be motivated by a strong desire to successfully advance novel therapeutics into the clinical trial stage. Candidates will have a Ph.D. in field Biology, a minimum of 5 years supervisory experience, and a track record of proven success in advancing small molecule, preclinical drug discovery programs. Broad experience across therapeutic areas is an asset.

Scientific Software Engineer/Analyst

We are seeking an independent, goal-oriented applications specialist to work within a multidisciplinary team of scientists. Demonstrated experience designing, implementing, and maintaining complex algorithms is essential. The position will involve the evolution of proprietary software, implementation of commercially available packages, and the development of custom applications. Familiarity with UNIX, LINUX & NT operating systems, software system development, object-oriented programming, 2 years high-level language (C, C++, PERL) programming experience, GUI programming and design, strong communication skills, and a commitment to customer service are essential. Programming experience (in OpenGL, Windows NT, or in a UNIX environment), working knowledge of Oracle databases, C, Fortran, Java, JavaScript, PERL, or Win32-API is desirable. Candidates should hold a BS/MS in Computer Science, or the equivalent, with 2-3 years industrial experience. A background in the life sciences (chemistry, biology, pharmaceutical sciences) is preferred.

Director of Scientific Computation

This key individual will head a team that will be responsible for the maintenance and operation of a supercomputer cluster that accurately predicts protein binding sites and builds chemistry molecules at that site. Programming experience designing, implementing, and maintaining complex algorithms is required. This individual will also maintain and curate a proprietary cheminformatics and protein structure database that will be used to select and advance appropriate small molecule therapeutics-based protein specificity, and physicochemical and biological properties. Responsibilities include the design of proprietary software, implementation of commercially available packages, and development, object-oriented programming, GUI programming and design. Familiarity with Oracle databases, C, C++, Fortran, Java, JavaScript, PERL, and Win32-API are essential. Candidates should hold a Ph.D. in computational chemistry, physical chemistry, biochemistry, physics or the equivalent. Significant management experience is desirable.

Computational Chemists

We have immediate openings for Computational Chemists. Our Computational Chemists use proprietary de novo methods to design leads for protein targets. Successful candidates will have experience working on a multidisciplinary team of scientists. Candidates should hold a Ph.D. in computational chemistry, physical chemistry, chemistry, biochemistry, biophysics or the equivalent. A strong background in organic chemistry is preferred. Experience in applying typical modeling techniques to problems in structure-based design ranging from lead identification to optimization of compounds as preclinical candidates, is essential. Experience with de novo and ligand design methods, and strong communication skills are essential.

We offer a competitive salary and benefits package, including stock options.

Visit our Web site (locusdiscovery.com) for more information about us and our exciting future, as well as a job description for the above opportunity. You may apply online at locus-employment@locusdiscovery.com or fax your resume to Locus Discovery Human Resources at 609-720-4805. Equal Opportunity Employer.



InforMax®

InforMax, Inc. is the leading global provider of bioinformatics software and services to academia and industry. We are an exciting, fast-growing company that blends biology, computer science, and business expertise to create state of the art software and services for researchers all over the world. Our headquarters are in Bethesda, MD and we have technical offices in South San Francisco, CA and Golden, CO.

The Professional Services division at InforMax is an interdisciplinary group of scientists and information technology professionals. We are responsible for developing successful consulting and support relationships with our customers. Our group offers unparalleled exposure to a broad range of research and development activities in bioinformatics, and career development and employee satisfaction are key priorities. We are seeking qualified candidates for the following positions:

- **Director of Bioinformatics Services.** The Director will lead efforts to assess the research and business needs at customer organizations, and will supervise delivery of bioinformatics and IT consulting services. The successful candidate will have a Ph.D. plus post-doctoral experience in Life Sciences and at least four years of experience with bioinformatics in the commercial setting. A professional demeanor and presentation style, as well as managerial and team leadership experience, is also required.

- **Senior Bioinformatics Scientist.** The Senior Scientist will work on interdisciplinary teams to address the needs of researchers at our customer organizations. The successful candidate will have a Ph.D. plus post-doctoral experience in Life Sciences and at least two years of analytical bioinformatics experience. Extensive experience with bioinformatics methodology and software, UNIX, SQL, and at least one programming language is required. This position will entail travel to customer locations.

Please send your resume and cover letter indicating position of interest. Email: employment@informaxinc.com; Fax: (240) 747-4026; Mail: InforMax, Inc. Human Resources, 7600 Wisconsin Ave. Suite 1100, Bethesda MD 20814. InforMax is proud to ensure that equal talent will always get equal opportunity.

FINDING THE RIGHT
JOB SHOULDN'T BE
LIKE MAPPING THE
HUMAN GENOME.

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Positions Available in DNA Repair and Mutagenesis

The Sealy Center for Molecular Science at the University of Texas Medical Branch at Galveston has several positions currently available in the following laboratories:

R. Stephen Lloyd, Ph.D. and Amanda McCullough, Ph.D.

Research Assistant, Postdoctoral Fellow and Laboratory Manager: These positions will focus on structure/function analyses of DNA repair enzymes and the mechanistic basis of mutagenesis for stereospecific DNA lesions. Individuals will be expected to conduct independent research and have skills in molecular genetics, protein purification and cell culture.

Sankar Mitra, Ph.D.

Postdoctoral Associate/Scientist: This position will study several aspects of repair of oxidatively damaged DNA. Particular emphasis is placed on molecular and cell biological studies of various regulatory functions of the major mammalian AP-endonuclease APE1. Experience in recombinant DNA techniques is essential, and experience in cell biology is desirable.

Compensation will depend on research experience. Applications will be reviewed upon receipt and continue until each position is filled. All applications should contain: a current curriculum vitae, names and contact information of three references, and an indication of desired position. Please submit to: **Ms. Rosemary Martinez, UTMB, Sealy Center for Molecular Science, 301 University Blvd., Galveston, TX 77555-1071. UTMB is an EO/AA employer, M/F/D/V.**

National Cancer Institute - National Institutes of Health

Head of all Extramural Research Training and Career Development and Cancer Education Programs

Opening Date: March 26, 2001

NCI-01-3120

Closing Date: May 31, 2001

The National Cancer Institute seeks a Chief for its Cancer Training Branch (CTB). This position oversees the planning, development and implementation of all NCI grant programs in research training and career development as they relate to the basic, clinical and population sciences. Responsibilities also include all cancer education activities intended for medical and public health professionals and the lay public. The CTB also oversees a comprehensive program for recruiting and sustaining under-served populations in cancer research. Through its interactions with extramural scientists in workshops and at national meetings and with NCI advisory groups, the CTB plans, develops and implements the strategies and award mechanisms for training the next generation of cancer researchers. The CTB works closely with the applicants who are competing for extramural national Research Service Awards, Career Development Awards and Education Grants and sets priorities for allocation of available resources to meet the NCI's mission and objectives. This is a position that must interact and communicate effectively with the entire cancer research community, as well as work closely with all organizational units of the NCI.

SALARY RANGE AND BENEFITS: Salary ranges from \$87,864 - \$114,224 per annum. Benefits include health and life insurance, retirement, paid holidays, vacation and sick leave. Salary quoted includes locality pay.

APPLICATION PROCEDURES: U.S. citizenship is required. The NCI recruitment bulletin for this position contains complete application procedures and lists all mandatory information which you must submit with your application. To obtain the recruiting bulletin, call 1-800-728-JOBS (for local calls, 301-594-2953). When prompted, enter the "Fax ID Number" 1949 for NCI-01-3120. You will be prompted for your fax machine number. You may also obtain the recruiting bulletin at this Web address www.usajobs.opm.gov. If you have any questions on qualification requirements or application procedures, or if you wish to obtain a position description or other information, please call (301) 402-2812.

Please submit your resume, SF-171, Application for Federal Employment or OF-612, Optional Application Form by the closing date to:

**NATIONAL INSTITUTES OF HEALTH
NATIONAL CANCER INSTITUTE
HUMAN RESOURCE AND CONSULTING BRANCH
6120 Executive Boulevard, MSC 7211
Executive Plaza South, Suite 519
Rockville, Maryland 20852-7211**



NIH is an Equal Opportunity Employer

GLOBAL OPPORTUNITIES



The University of Sydney
AUSTRALIA

Lecturer (2 positions)

The Electron Microscope Unit

The Electron Microscope Unit (EMU) at the University of Sydney seeks to develop techniques, expertise and understanding of the relationships between the structure and function both of living systems and of physical systems.

Lecturer in Structural Biology

Reference No. A13/001473

Recognising the significance of microscopy and microanalysis in the post-genomic era, a Lectureship in Structural Biology is now available.

Lecturer in Microstructural Characterisation

Reference No. A13/001472

Recognising the significance of microscopy and microanalysis in the era of micro- and nanotechnology, a Lectureship is now available in the area of microstructural characterisation.

The positions are full-time continuing, subject to the completion of a satisfactory probation period for new appointees. For further information on the above positions please see <http://www.bull.usyd.edu.au/personnel> or contact Associate Professor Simon P Ringer, Director on +61 2 9351 2351, fax +61 2 9351 7682 or e-mail: simon.ringer@emu.usyd.edu.au

Closing: 31 May 2001

The University is a non-smoking workplace and is committed to the policies and principles of equal employment opportunity and cultural diversity. The University reserves the right not to proceed with any appointment for financial or other reasons.
See <http://www.usyd.edu.au/>



**National Brain Research Centre
ICGEB Campus, Aruna Asaf Ali Marg,
New Delhi - 110 067, INDIA**

FACULTY POSITIONS

National Brain Research Centre invites applications from neuroscientists for tenure-track positions. NBRC has been established by the Department of Biotechnology, Government of India as a state-of-the-art apex centre for brain research. NBRC's research interests span from molecular to behavioral neuroscience.

Appointments will range from *Staff Scientist III* upwards (equivalent to university positions of lecturer or assistant professor upwards). A demonstrated record of independent scientific productivity in the form of peer-reviewed publications in scientific journals is essential. Length of experience and the quality of scientific productivity will be major factors in deciding the level of appointment and salary. Start-up funding for research will be provided. Investigators are also expected to bring in external funding.

Interested scientists may send a curriculum vitae providing details of qualification, professional experience/achievements, positions held, with copies of publications and the names, addresses, telephone/fax numbers and e-mail addresses of 3 referees to the **Director, National Brain Research Centre, ICGEB Campus, Aruna Asaf Ali Marg, New Delhi - 110 067**. More details are available at www.nbrcindia.org.



Metabasis Therapeutics, Inc., is a San Diego-based biopharmaceutical company seeking exceptionally talented and highly motivated scientists with good communication skills and a primary interest in industrial research to join our multi-disciplinary group focused on the discovery of drugs targeting metabolic pathways. In all cases, direct or indirect experience with industrial research would be advantageous. Currently, we have the following open positions in Biological Sciences:

Research Scientist, Biochemistry

Research Scientist with a Ph.D. degree and 2-5 years of proven expertise in protein biochemistry and enzymology, including purification, characterization, and kinetic analysis. Experience in intermediary metabolism would be beneficial. Responsibilities include in vitro assay development; profiling drugs at the enzyme, receptor, cellular level; and identification of new liver targets for the treatment of liver or metabolic diseases. Candidates must be organized individuals who demonstrate enthusiasm, good qualities in leadership, flexibility, and teamwork skills.

Research Scientist, Pharmacology

Research Scientist with a Ph.D. degree and 2-5 years of proven expertise in cell biology and in vivo pharmacology. Incumbent will be responsible for designing and implementing in vivo studies to test compounds and explore principles for treatment of liver and metabolic diseases. Responsibilities also include identification of new liver targets for the treatment of liver or metabolic diseases. Candidates must be organized individuals who demonstrate enthusiasm, good qualities in leadership, flexibility, and teamwork skills.

Biochemistry Associates

Biochemistry Associates with a BS or MS degree in Biochemistry, Cell Biology, or related field as well as 1-3 years of lab research experience in two or more of the following: enzymology, intermediary metabolism, cell culture, HPLC and/or LC-MS analysis. Candidates, depending upon their qualifications, will have diverse responsibilities including: the purification and characterization of enzymes, establishment of new enzyme and cellular assays, profiling drugs at the enzyme and cellular level, drug metabolism studies, pharmacokinetic analysis, and the physicochemical characterization of drugs.

Pharmacology Associate

Pharmacology Associate with a BS or MS degree in Life Sciences, Biology, Pharmacology or related field as well as 1-3 years of lab research experience in basic tissue culture and in vivo pharmacology. Additional experience in histological preparation, spectrophotometric and radiochemical assays, and/or HPLC analysis is beneficial. Responsibilities include administration of drugs by various routes, maintenance of various cell lines, assisting in the development of in vivo and in vitro models and profiling drugs at both the in vivo and cellular level.

We are an equal opportunity employer offering a competitive compensation package including a stock option program & comprehensive benefits, in a fast-paced, highly stimulating, team-oriented environment. Applicants are invited to submit a resume and cover letter with Job Code Bio/Sci to: Metabasis Therapeutics, Inc., HR Dept., Job Code: Bio/Sci, 9390 Towne Centre Dr., San Diego, CA 92121; Fax: 858-458-3504; email: jobs@mbasis.com



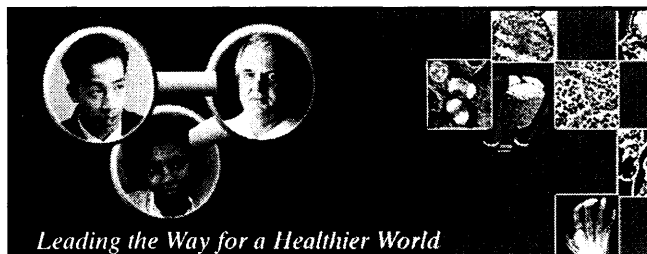
Assistant Professor (Research) Microscopy and Bioimaging Division of Biology and Medicine Brown University

The Department of Molecular Biology, Cell Biology and Biochemistry at Brown University announces the opening of a faculty position at the Assistant Professor (non-tenure track) level in Microscopy and Bioimaging to begin September 1, 2001.

Qualifications include a Ph.D., M.D. or equivalent degree and a demonstrated track record of excellence in research. The applicant will be encouraged to pursue an independent, externally funded research program emphasizing bioimaging using light and electron microscopic approaches, and will receive internal support for managing an existing facility containing electron and confocal microscopes. The successful applicant will be expected to be an active collaborator in a newly funded strategic initiative in genetics and genomics and to participate in the NIH-funded predoctoral training program in Molecular Biology, Cell Biology and Biochemistry.

Applications will be reviewed upon receipt and will be accepted until the position is filled. Application materials (a curriculum vitae, description of research interests, and at least three letters of reference under separate cover) should be sent to: **Dr. Gary M. Wessel, c/o Tammy Glass, Department of Molecular Biology, Cell Biology and Biochemistry, Brown University, Box G-J223, Providence, RI 02912.**

*Brown University of an EEO/AA Employer
and invites applications from women and minorities.*



Lead the way! Become a leader by furthering your career and experience with one of the world's largest research-based companies. At Wyeth, part of American Home Products, your knowledge will help lead the way into a healthier world. Join us in a promising position in Drug Discovery for cardiac function and cardiovascular disease in our **Radnor, PA** facility.

Ph.D. Pharmacologist

- 5-10 years' post-doctoral experience with strong interest in identification and initiation of novel projects
- Extensive knowledge and skills in large and small animal models of cardiac function, including models of ischemia/reperfusion injury and chronic heart failure
- Exceptional communication and presentation skills
- In vitro/molecular experience would be highly desirable

Wyeth offers competitive compensation and benefits programs including stock options, child-care subsidies, flex-time, business casual work environment, educational assistance and professional development programs. Please forward your resume with salary requirements to: **Wyeth, Reference OPSCI, P.O. Box 7886, Philadelphia, PA 19101-7886. Fax to: (610) 989-4854. E-mail: jobs@labs.wyeth.com**

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For more information, please visit us at: www.wyethjobs.com





Science Policy Fellowship In Environmental Health

National Institute of Environmental Health Sciences
National Institutes of Health
Research Triangle Park, NC

The NIEHS is accepting applications for two environmental health policy service fellowships that will provide the opportunity for accomplished and societally aware postdoctoral to mid-career scientists to participate in and contribute to the public policymaking process of the Federal government. The fellowship stipend is \$57,345, plus benefits and allowances for travel and offsite living expenses. Fellows will be appointed for 18 months, beginning in late September/early October 2001, and will choose 3-9 month rotational assignments working in NIEHS and other government agencies and in private sector science organizations. At least half of the 18-month fellowship period will be spent at the NIEHS and the National Toxicology Program in Research Triangle Park.

Applicants must have a Ph.D. or equivalent doctoral level degree and at least 3 years of post-doctoral professional experience that demonstrates exceptional competence in an area of science related to environment and health; outstanding written, oral and interpersonal skills; sensitivity toward political and social issues; and a strong interest and some experience in applying personal knowledge toward the solution of public health problems. Preference will be given to applicants who would ultimately be eligible for positions in government.

Applications must include the following: (1) cover letter; (2) Curriculum Vitae; (3) a candidate statement, not exceeding 1000 words, that addresses why the fellowship is desired; how the candidate is qualified with respect to environmental science policy; what issues interest the candidate; what the candidate hopes to accomplish as a Fellow; and how the candidate hopes the fellowship will affect his/her career goals; and, (4) letters of reference from three persons who can discuss professional competence and other personal or professional qualities or interests making the applicant especially qualified to serve as a Fellow. References are considered confidential and must be mailed directly to NIEHS.

Applications, including letters of reference, must be received by June 1, 2001 and should be sent to NIEHS, Human Resources, Attn: Ayn Clayborne (HNV01-06), P.O. Box 12233 (MD EC-11), Research Triangle Park, NC 27709, or e-mailed to hr@niehs.nih.gov. Additional information is available on the Internet at www.niehs.nih.gov/vacancy/fellowship.htm. Contact: Sheila Newton, 919-541-4343, e-mail: ncwton1@niehs.nih.gov.

The National Institutes of Health is an equal opportunity employer.

FACULTY POSITIONS GENOMICS AND BIOINFORMATICS

The University of Tennessee has awarded \$10,000,000 to establish a CENTER OF EXCELLENCE IN GENOMICS AND BIOINFORMATICS. We are seeking up to 6 tenure track assistant, associate, or full professors who bring expertise in functional genomics and/or bioinformatics to join a strong group of biomedical researchers in the UT System. Applicants must have expertise in one of the following areas: transgenic/knockout technologies, proteomics, mouse mutagenesis, microarray, bioinformatics, complex trait analysis, and gene mapping/discovery. While the positions are on the Memphis campus at the University of Tennessee Health Science Center, exciting opportunities for research and graduate education exist with the Knoxville campus, St. Jude Children's Research Hospital, and Oak Ridge National Laboratories. Successful applicants will receive generous start-up packages, a competitive salary, and an appointment in a basic and/or clinical department. Applicants must have a Ph.D. and/or M.D. with postdoctoral training. The successful applicants are expected to have or develop an outstanding research program that utilizes one of the techniques noted above and to participate in or develop collaborative research projects with UT or affiliated faculty. Please send letter of research and teaching interests, CV, and names and addresses of at least three references to:



Center of Genomics and Bioinformatics
Search Committee
Univ. of Tennessee Health Science Center
855 Monroe Ave., Rm 515
Memphis, TN 38163
OR email to dgold@nb.utm.edu

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*The Future
is our
Mission*

Forschungszentrum Jülich



The Research Centre Jülich is the largest interdisciplinary centre of its kind in Germany: 4200 staff members are concerned with finding solutions for urgent problems in the fields of "Matter", "Energy", "Information", "Life" and the "Environment". As a member of the Hermann von Helmholtz Association of German Research Centres (HGF), the Research Centre Jülich is primarily committed to issues of public concern.

For the establishment of the first 4T whole-body MRI scanner (new generation) in Europe, the Institute of Medicine in the Research Centre seeks to strengthen the MR group and has following openings:

PHYSICISTS (Ph. D. preferred) COMPUTER SCIENTIST/ MATHEMATICIAN (Ph. D. preferred)

- code 099/2001 -

Research activities in the Institute of Medicine are focussed on the spatial and temporal localisation of brain function and structure in both volunteers and patients. In order to further these activities, technical developments will be pursued on the 4T scanner. The Institute houses a Siemens 1.5T MRI scanner as well as state-of-the-art MEG and PET facilities and provides ample opportunities for collaboration. All scanners are exclusively used for research projects.

In these positions you may expect:

- As part of a highly motivated team, to participate in:
 - Functional MRI
 - Methods for quantitative imaging in vivo / sequence development
 - Imaging of ^{23}Na and ^{17}O
 - Hyperpolarised ^{129}Xe imaging and spectroscopy
 - Diffusion imaging.

We expect from you:

- A degree in physics, Ph. D. preferred
- Experience of functional magnetic resonance imaging would be advantageous
- Computer scientists should have a degree in computer sciences/mathematics, if possible also a Ph. D.

The positions are for an initial period of 3 years.

You will find further information at our website
<http://www.fz-juelich.de>.

The Research Centre strongly encourages applications from suitably-qualified female candidates. Applications from disabled persons are welcome. The salary and social benefits will conform to the provisions of the Federal Collective Agreement for Public Employees (BAT).

For information on scientific questions, please contact:
Dr. N. J. Shah or Prof. K. Zilles (n.j.shah@fz-juelich.de or k.zilles@fz-juelich.de).

Applications including curriculum vitae, selected publications and three letters of reference should be sent to:

Forschungszentrum Jülich GmbH
PR-Personalbetreuung
D-52425 Jülich
Tel.: ++49/2461/615358.

POSITIONS OPEN

FISHERIES SCIENCE AND MANAGEMENT

In conjunction with funds from a Canada Research Chair and the Canada Department of Fisheries and Oceans, the School of Resource and Environmental Management at Simon Fraser University is expanding its research and teaching program in fisheries science and management. The School intends to fill two tenure-track faculty positions, one as an **ASSISTANT PROFESSOR**, the other as an **ASSOCIATE or FULL PROFESSOR**. We invite applications from Ph.D. Scientists who have research experience in at least one of the following areas: (1) ecosystem-based management, incorporating ecosystem considerations (e.g., bycatch, multispecies interactions, habitat changes, spatial dynamics, or climatic changes) into stock assessment models and fisheries management strategies or policy; or (2) aquatic conservation including topics such as the science of marine protected area design, the analysis of changing marine or freshwater habitats, or the development of ecosystem-based reference points.

A strong quantitative background in fish stock assessment and simulation modeling is considered an asset for both positions. Successful candidates will teach graduate and undergraduate courses; supervise students; and conduct research in a dynamic, multidisciplinary graduate school. Relevant teaching experience is desirable.

Applicants should send curriculum vitae, transcripts, samples of relevant reprints, and immediately request three references to send confidential letters of recommendation directly to: **Dr. Peter Williams, Director, School of Resource and Environmental Management, Simon Fraser University, Room 9677, Shrum Classroom Building, 8888 University Drive, Burnaby, B.C., V5A 1S6 Canada. Telephone: 604-291-3074; FAX: 604-291-4968; e-mail: reminfo@sfu.ca; website: http://www.rem.sfu.ca.**

The closing date is 29 June 2001. It is important that we receive all application materials, including references, by this date.

Simon Fraser University is committed to the principle of Equity in Employment and offers Equal Opportunities to qualified applicants. Canadians and permanent residents will be given preference; however, non-Canadians are encouraged to apply. All appointments are subject to budgetary authorization.

ASSISTANT PROFESSORS ANIMAL AND VETERINARY SCIENCES Clemson University

The Department of Animal and Veterinary Sciences at Clemson University invites applications for two tenure-track positions at the Assistant Professor level. We are seeking broadly educated Scientists with the potential to establish a research program of national distinction and be inspiring teachers.

Position One: equine sciences. Primary teaching responsibility will be undergraduate course(s) for majors and a graduate course in one's specialty. The specific research field is open.

Position Two: animal growth and development. Primary teaching responsibility will be an undergraduate majors course and graduate course(s) in one's specialty. The specific research field is open.

Applicants should submit a résumé; a letter documenting interest and qualifications; transcripts; and the names, addresses, and telephone numbers of four individuals who can supply letters of recommendation. Applications should be sent to: **Glenn Birrenkott, Chair, Animal and Veterinary Sciences, Clemson University, 132 PAS, Clemson, SC 29634-0361.** Electronic applications may be sent to e-mail: gbrnkt@clemson.edu; include Search Committee on the subject line. Review of applications begins May 1, 2001; however, applications will be accepted until the positions are filled. Information about the research interests of the faculty and departmental resources may be obtained at the Department's website: <http://www.clemson.edu/avs>.

Clemson University is an Equal Employment Opportunity/Affirmative Action Employer. Women and minority candidates are especially encouraged to apply.

POSITIONS OPEN

ASSISTANT AND ASSOCIATE/ FULL PROFESSOR POSITIONS IN IMMUNOLOGY Department of Molecular Genetics and Microbiology University of New Mexico School of Medicine

Applications are invited for two tenure-track faculty positions at the Assistant and the Associate/Full Professor levels in the Department of Molecular Genetics and Microbiology at the University of New Mexico School of Medicine. The Department is one of four basic science departments organized by research interests. Shared resources include core facilities in genomics and microarray analysis, flow cytometry and confocal microscopy, and an interdepartmental graduate program. Candidates must hold a Ph.D., M.D., or equivalent degree and show evidence of research productivity in the area of cell-mediated immunity, immunity to infection, innate immunity, or autoimmunity. Individuals who can interact with ongoing programs within the Department (host-pathogen interactions, virology, innate immunity) or School of Medicine are preferred. Established research funding is highly desirable for the senior-level position. Successful candidates will be expected to develop and maintain independent research programs and to participate in the education of graduate and medical students. Interested individuals must submit a letter of application including a description of research interests, plans, and support; curriculum vitae; and the names, addresses, and telephone numbers of three references. For best consideration, application materials must be received by August 31, 2001. Must indicate which position is being applied for (Assistant, Associate, or Professor). Materials must be mailed to:

**Dolores Tarin
Department of Molecular Genetics
and Microbiology
University of New Mexico
Albuquerque, NM 87131
Telephone: 505-272-5249
FAX: 505-272-6029**

UNM is an Equal Employment Opportunity/Affirmative Action Employer.

ASSISTANT/ASSOCIATE PROFESSOR DEPARTMENT OF PHARMACOLOGY

The Department of Pharmacology and Therapeutics at the Louisiana State University Health Sciences Center in Shreveport invites applications for a tenure-track position as an Assistant/Associate Professor. The Department is recruiting qualified candidates with expertise in any area of pharmacology or toxicology with emphasis on cellular or molecular biological approaches. The successful candidate must have a Ph.D. or equivalent degree in pharmacology or related discipline with demonstrated research abilities and/or externally funded research. He/she will be involved in graduate and medical student teaching and will be expected to develop an independent research program. Excellent facilities exist within the LSU Hospital and Medical School and the adjacent Biomedical Research Institute. The Department maintains a NIH-funded training program for graduate and postgraduate training in alcohol and drug abuse research. The position is available immediately, and review of applications will begin on May 1, 2001. Candidates should submit a letter of application, curriculum vitae, and a detailed description of research abilities and plans along with names of three references to:

**Nick E. Goeders, Ph.D.
Department of Pharmacology and Therapeutics
LSU Health Sciences Center
P.O. Box 33932
Shreveport, LA 71130-3932
Telephone: 318-675-7852
FAX: 318-675-7857
E-mail: ngoede@lsuic.edu**

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

POSITIONS OPEN

TWO FACULTY POSITIONS DRUG DESIGN AND DISCOVERY

The Division of Pharmaceutical Sciences, University of Kentucky College of Pharmacy ([website: www.uky.edu/Pharmacy/ps](http://www.uky.edu/Pharmacy/ps)) invites applications for two tenured/tenure-track positions in drug design and discovery (rank open). Candidates will have a Ph.D. and postdoctoral experience in medicinal chemistry, chemistry, biochemistry, or at the chemistry/biology interface and a commitment to interdisciplinary pharmaceutical research. A pharmacy background is preferred. **Position One (medicinal chemistry):** Candidates should have experience in one or more of the following: structure-based rational drug design, synthetic organic/bioorganic/natural product chemistry, and computational methods for lead compound optimization. **Position Two (computational biophysical and structural biology):** Candidates should have interests in drug discovery, design, and/or delivery with experience in one or more of the following: macromolecule modeling, ligand-receptor interactions, pharmacophore development, conformational analysis, and MD simulations. Potential areas for collaborations include but are not limited to cardiovascular disease, neuropathologies, and cancer. The individual will be expected to develop extramurally competitive research and graduate training programs and to innovatively contribute to medicinal chemistry/biochemistry-oriented professional and graduate courses. Applicants should submit a letter of application; curriculum vitae; proposed research program; and the names, addresses, and telephone numbers of three references to: **Dr. Peter Crooks, Division of Pharmaceutical Sciences, College of Pharmacy, University of Kentucky, Lexington, KY 40536-0082. E-mail: pcrooks@pop.uky.edu; website: www.uky.edu/Pharmacy/employment.htm.** Applications will be accepted until the positions are filled.

An Equal Opportunity University.

FACULTY POSITION VIRAL PATHOGENESIS

The Helen C. Levitt Center for Viral Pathogenesis and Diseases at the University of Iowa invites applications from Physician-Scientists for a tenure-track faculty position (**ASSISTANT or ASSOCIATE PROFESSOR**) in the field of viral pathogenesis. Applicants must have an M.D. degree, specialty training in a relevant field, significant postdoctoral research experience, and a record of excellent research accomplishment in viral-related diseases. Preference will be given to persons with experience in viral pathogenesis or viral immunology. The successful candidate will be expected to maintain an active, extramurally funded research program and to participate in clinical and teaching activities. An attractive start-up package and space in the new Medical Education Building will be provided. Send curriculum vitae, a brief description of current and future research directions, a description of areas of clinical and teaching expertise and experience, and a list of references to: **Dr. Jack Stapleton, Department of Internal Medicine, SW34 GH, University of Iowa, 200 Hawkins Drive, Iowa City, IA 52242.** *The University of Iowa is an Equal Opportunity Employer; women and minority candidates are encouraged to apply.*

Drug discovery in an academic and scientifically stimulating environment. Three **POSTDOCTORAL POSITIONS** and one **JUNIOR FACULTY POSITION** are available immediately at Structure Biology and Cancer Drug Discovery Program, Georgetown University Medical Center. Candidates with hands-on experience in Bcl-2 family proteins and apoptosis pathways; AKT/PKB proteins and signal transduction pathways; breast and prostate cancer biology; and familiar with techniques in protein purification, cloning, and animal studies are encouraged to apply. Please forward résumé, summary of research, and three references to: **Dr. Helen Bishop, E508 Research Building, Lombardi Cancer Center, GUMC, 3970 Reservoir Road, N.W., Washington, DC 20007. FAX: 202-687-6402; e-mail: bishop@gunet.georgetown.edu.**

Assistant Professor Tenure Track Faculty Position Molecular/Cell Biology

The Department of Biological Sciences at St. John's University invites applications for the position of Assistant Professor. Applicants should have a strong background in research in molecular/cell biology with at least three years of postdoctoral experience, and a commitment to quality innovative education at the undergraduate and graduate levels. A demonstrated ability to develop a genomics course would be of interest. The successful candidate will be expected to maintain a strong program in research and to attract extramural support.

St. John's University, one of the nation's largest Catholic universities, is located in a residential area of New York City. The Department of Biological Sciences at St. John's University maintains vigorous doctoral and master's programs in addition to its undergraduate program.

Send a curriculum vitae, a brief description of research, and the names of three references to:



Dr. Irvin N. Hirschfield
Chair, Department of
Biological Sciences
St. John's University
8000 Utopia Parkway
Jamaica, NY 11439

Applications will be accepted
until June 15, 2001.

St. John's is an equal opportunity employer and encourages
applications from women and minorities.



COLBY COLLEGE

CELL BIOLOGIST FACULTY FELLOW IN BIOLOGY

COLBY COLLEGE is seeking a Cell Biologist to fill a one-year position as Faculty Fellow in Biology to begin September 1, 2001. Candidates should have a Ph.D. in the biological sciences with broad training in cell biology. Plant cell biologists are especially encouraged to apply. Teaching assignments will include an Advanced Cell Biology course with laboratory and a second laboratory course in the candidate's area of expertise. Familiarity with liberal arts colleges, teaching experience, and postdoctoral experience are desirable.

Please submit a letter of application, statement of teaching interests (including courses you would be prepared to teach at Colby), curriculum vitae, reprints of no more than three publications, undergraduate and graduate transcripts, and three letters of recommendation to: **W. Herbert Wilson, Jr., Chair, Department of Biology, 5720 Mayflower Hill, Colby College, Waterville, Maine 04901. (207) 872-3432. E-mail: whwilson@colby.edu.**

Application review will begin on April 27 and will continue until the position is filled. Colby is an Equal Opportunity/Affirmative Action employer.

Applications and nominations of women and minorities who would enrich the diversity of the campus community are strongly encouraged. For more information about the College, please visit the Colby web site: www.colby.edu.

RADIATION BIOLOGIST

**Radiation Effects Research Foundation
Hiroshima and Nagasaki, Japan**

The US **National Academy of Sciences** is recruiting a biologist to work in the Department of Radiobiology at the Hiroshima laboratory of the Radiation Effects Research Foundation (RERF). RERF is a cooperative US-Japan research institute with approximately 300 staff members in Hiroshima and Nagasaki. The Foundation is engaged in the continuing mortality and morbidity follow-up as well as clinical and laboratory studies of atomic bomb survivors and their children. RERF findings on the continuing cancer risk are the primary basis for worldwide radiation protection standards. There is also recent evidence of a small, but significant excess risk of non-cancer diseases including cardiovascular diseases. Innovative multidisciplinary molecular and cellular research is needed to elucidate the mechanisms by which radiation exposure leads to cancer and non-cancer diseases. This biologist will have the opportunity to utilize RERF's unique and valuable resource of biologic materials and to collaborate in molecular mechanistic studies in genetics, cytogenetics, cellular and molecular biology, immunology, and biochemistry. A Ph.D in biological sciences with training and experience in molecular biology and evidence of an interest in radiation biology is required, along with evidence of substantial productivity in relevant research areas.

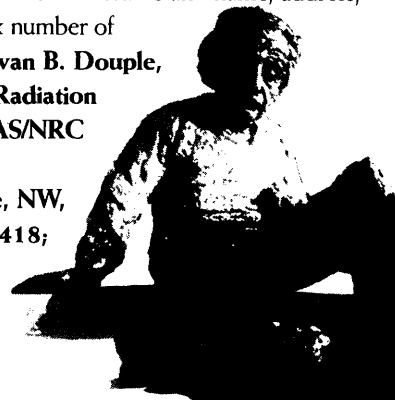
Salaries are commensurate with experience and supplemented by relocation, cost-of-living, home leave, and other benefits. Typical appointments are for 2 years with extensions possible. Send resume and name, address, and E-mail address/fax number of

3 references to: **Dr. Evan B. Douple,**
Director, Board on Radiation
Effects Research, NAS/NRC
(HA-466), 2101

Constitution Avenue, NW,
Washington, DC 20418;

Fax: 202-334-1639;

E-mail:
edouple@nas.edu
EOE.



THE NATIONAL ACADEMIES

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POSITIONS OPEN

ASSISTANT/ASSOCIATE/ FULL PROFESSOR Retinal Cell Biology

The Department of Ophthalmology and Visual Sciences at the University of Michigan is recruiting on the tenure track in the area of cell biology of vertebrate photoreceptor cells. The successful applicant should have a strong record of neuroscience research in any of several areas, including molecular neurobiology, cellular physiology, or cellular signal transduction. Working familiarity with retinal research is required, although preference will be given to candidates who additionally have a background outside of exclusively vision disciplines. The future research should be oriented in retinal neurodegenerative diseases in the broadest sense. Studies will complement efforts of current faculty who are studying the pathophysiological basis of photoreceptor degenerations using human molecular genetics, retinal cell and molecular biology, neurophysiology, and histopathology of natural and engineered animal models of retinal degenerations. Joint appointment will be established in a basic science department. Individuals interested in this position should submit their curriculum vitae and bibliography to: **Paul R. Lichter, M.D., F. Bruce Fralick, Professor and Chairman, Department of Ophthalmology and Visual Sciences, The University of Michigan, W. K. Kellogg Eye Center, 1000 Wall Street, Ann Arbor, MI 48105.** *The University of Michigan is an Equal Opportunity and Affirmative Action Employer and actively seeks diversity in its applicant pool.*

CELL BIOLOGIST

The Department of Biological Sciences at Wichita State University invites applications for a tenure-track faculty position at the rank of **ASSISTANT PROFESSOR** starting August 2001.

Qualifications: Applicants must have a Ph.D., M.D., or equivalent degree; postdoctoral fellowship experience; a strong record of scholarly achievement; and good communication skills (oral and written). The applicant is expected to develop an extramurally funded, independent research program in any area of cell biology (molecular approaches preferred); to teach undergraduate and graduate courses; and to direct the training of undergraduate and M.S. students.

Generous laboratory space is available, and a competitive start-up package will be provided. The deadline for receipt of applications is May 18, 2001. To apply, send a complete application package: a letter of interest, curriculum vitae, a statement of research goals, a statement of teaching philosophy and interests, and contact information for three references to: **Faculty Search Committee, Department of Biological Sciences, Wichita State University, 1845 Fairmount, Box Number 26, Wichita, KS U.S.A. 67260-0026.**

Wichita State University is an Affirmative Action/Equal Opportunity Employer.

RESEARCH ASSISTANT PROFESSOR AND POSTDOCTORAL FELLOWSHIP Lung and Vascular Biology University of Illinois at Chicago College of Medicine Department of Pharmacology

Position (NIH-funded program project grant) of Research Assistant Professor or Postdoctoral Research Associate is available to study novel protein interactions in endothelial cells using the yeast two-hybrid approach. The successful candidate will have Ph.D. or M.D., research expertise in molecular biology and/or protein biochemistry, a credible publication record, and potential for independent funding and tenure-track position. For fullest consideration, qualified candidates should submit their curriculum vitae and a list of three references by July 1, 2001, to: **Tatyana Voyno-Yasenetskaya (RAP/PPG), Department of Pharmacology, University of Illinois at Chicago, 835 South Wolcott Avenue, Room E403 (M/C 868), Chicago, IL 60612.** E-mail: tyv@uic.edu. *The University of Illinois is an Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

FACULTY POSITIONS Genomics and Bioinformatics University of Massachusetts Medical School

A major expansion of the Program in Molecular Medicine at the University of Massachusetts Medical School includes immediate openings for **SENIOR TENURED** and **JUNIOR TENURE-TRACK** faculty positions. The Program consists of Basic and Physician Scientists representing a broad range of disciplines in the biomedical sciences. The Program will expand to fully occupy its current modern building of approximately 80,000 square feet. Core facilities for tissue culture, media preparation, DNA sequencing, protein chemistry and proteomics, fluorescence-activated cell sorting, digital imaging and confocal microscopy, genomics, and transgenic/knockout mice are available. The positions will be highly competitive with regard to start-up funds, laboratory space, and salary. The Program also seeks individuals of outstanding research potential in the broadly defined areas of cell, developmental, molecular, or structural biology.

Applicants should send curriculum vitae, statement of research interests, and names and addresses of three references to:

**Dr. Roger Davis, Search Committee Chair
or Dr. Michael P. Czech, Director
Program in Molecular Medicine
University of Massachusetts Medical School
373 Plantation Street
Worcester, MA 01605**

An Equal Opportunity/Affirmative Action Employer.

Tenure-track faculty position. Applications are invited for a tenure-track faculty position at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level in the Department of Physiology and Pharmacology with appointment in the Department of Internal Medicine, Section on Gerontology and Geriatrics. Applicants must have a Ph.D. or M.D. degree and postdoctoral experience, documented evidence of high-quality research, excellent record of publications, and extramural funding. The candidate should have broad knowledge of mechanisms of aging and expertise in signal transduction, transcription factors, and/or transgenic models of aging. The successful candidate should be able to interact with established programs in neuromuscular aging and be willing to interact with Clinical Researchers within the environment of the NIH-funded Claude Pepper Center of Aging. Individuals with interests in altered gene expression with age and its relationship to disability will be given special consideration. Curriculum vitae, statement of research interests, and a copy of relevant publications should be sent to: **William E. Sonntag, Ph.D., Department of Physiology and Pharmacology, Wake Forest University School of Medicine, Winston-Salem, NC 27157-1083.** An immediate start date is anticipated following selection of the successful candidate. *Wake Forest University School of Medicine is an Equal Opportunity/Affirmative Action Employer.*

FACULTY POSITIONS CANCER GENETICS

Fox Chase Cancer Center ([website: www.fccc.edu](http://www.fccc.edu)), an NCI-designated comprehensive cancer center, has immediate openings for outstanding Investigators to fill several **ASSISTANT** or **ASSOCIATE PROFESSOR**-level positions in human cancer genetics, a targeted area of growth at this institution. Successful candidates will join a group of 10 current members of the Human Genetics Program. We are particularly interested in Laboratory Investigators with expertise in DNA microarray analysis, molecular genetic analysis of hereditary cancers, and genomics. New faculty will receive a generous start-up package including funds for equipment, personnel, and operating expenses and laboratory space in the new Cancer Prevention Pavilion. Interested candidates should send curriculum vitae, summary of research interests, and three letters of reference to: **Dr. Joseph R. Testa, Director, Human Genetics Program, Fox Chase Cancer Center, 7701 Burholme Avenue, Philadelphia, PA 19111.** *Equal Opportunity Employer.*

POSITIONS OPEN

ASSISTANT PROFESSOR of Aquatic Ecology, Penn State: tenure track, 70% teaching, 30% research. School of Forest Resources, College of Agricultural Sciences, The Pennsylvania State University. Available August 1, 2001. The teaching component is primarily in the ERM program, an interdepartmental undergraduate major in the College of Agricultural Sciences; it includes undergraduate courses in ecosystem management (twice annually), pollution in aquatic systems (once a year, team taught), and a graduate course in the faculty member's specialty. The individual advises undergraduate students in ERM and graduate students in the wildlife and fisheries science and related graduate programs. The research component is in the School of Forest Resources, academic home for the position, and will be in the area of aquatic ecology, preferably with an emphasis on macroinvertebrate biology, herpetology, or fisheries. Service to both the university and professional communities is expected. Qualifications include a Ph.D. in aquatic ecology, herpetology, fisheries, or a related area. Teaching experience and a demonstrable commitment to active student learning and student advising are required. Applicants should submit a letter of application, résumé, academic transcripts, and names of three professional references to: **Dr. Lamartine F. Hood, Professor and Program Coordinator, Environmental Resource Management Program, The Pennsylvania State University, 206-B Agricultural Sciences and Industries building, University Park, PA 16802.** Telephone: 814-865-6942; FAX: 814-863-0109; e-mail: Lhood@psu.edu; [website: http://erm.cas.psu.edu](http://erm.cas.psu.edu). Review of applications will begin on May 21, 2001; applications are welcome until the position is filled. *Affirmative Action/Equal Opportunity Employer.*

RESEARCH SCIENTIST: Perform research in area of high-throughput mass spectrometry for analysis and purification of compound libraries and more specifically combinatorial libraries. Operate and maintain mass-directed fraction collection systems coupling reversed phase chromatography and electrospray ionization mass spectrometry. Expertise in fundamentals and operation of supercritical fluid chromatography coupled with mass spectrometry for analysis and purification of compound libraries. Demonstrated expertise in chiral compound separation, analysis, and purification. Expertise in design and implementation of parallel analysis sampling technique, including multiprobe autosampling and parallel fluid spray mass spectrometry. Must have good written and oral communication skills, be published in peer-reviewed analytical chemistry journals, and have the ability to perform expert work through application and knowledge of analytical chemistry. Knowledge and understanding of pharmaceutical discovery research process. Demonstrated ability to present research results at peer-reviewed internal and external meetings. Requires M.S. in chemistry, biochemistry, or closely related field. Salary commensurate with experience. Forty hours per week. San Diego area. Submit résumé to: **Box 99, 1200 New York Avenue, N.W., Room 911, Washington, DC 20005.**

RESEARCH ASSISTANT PROFESSOR Thomas Jefferson University Philadelphia, Pennsylvania

The Department of Pathology, Cell Biology, and Anatomy of Jefferson Medical College invites applications for the position of Research Assistant Professor. The successful candidate will collaborate closely on established projects and develop new lines of investigation in related fields leading to extramurally funded research. Ongoing projects include the interaction of G-proteins with tyrosine kinase receptors, the effects of ethanol on insulin- and insulin-like growth factor receptors, and microarray techniques to study the effects of ethanol on neuronal gene expression. A letter of interest, curriculum vitae, and the names of three references should be sent to: **Dr. Raphael Rubin, Thomas Jefferson University, 233 Alumni Hall, Philadelphia, PA 19107.** E-mail: raphael.rubin@mail.tju.edu. *Equal Opportunity Employer.*



Yale UNIVERSITY

Department of Molecular, Cellular and Developmental Biology

The Molecular, Cellular and Developmental Biology Department of Yale University invites applications for a tenured **Associate or Full Professor in the area of Chemical and Biological approaches to the study of Nucleic Acids**. We seek scholars with a record of outstanding achievement in research, who are also accomplished teachers at both the undergraduate and graduate level. We are interested in candidates with breadth of expertise pursuing chemical and biological approaches to the study of nucleic acids.

Additional information on the Department of Molecular, Cellular and Developmental Biology and the research interests of its faculty can be found on our web site: <http://www.mcdb.yale.edu/>.

Please send curriculum vitae, description of research interests and at least three letters of recommendation by July 3, 2001, to: **Chemical Biology Search, c/o Chair, MCDB Department, Yale University, P.O. Box 208103, New Haven, CT 06520-8103.** *Yale University is an Affirmative Action/Equal Opportunity Employer. Women and members of minority groups are especially encouraged to apply.*

FELLOWSHIPS

Postdoctoral Fellowships

The UNC Lineberger Comprehensive Cancer Center of the University of North Carolina at Chapel Hill will have openings in 2001 in its training program, now in its 26th year, for persons completing graduate studies to train with excellent investigators in basic research in tumor virology, molecular carcinogenesis, molecular therapeutics, cancer cell biology, genetics, tumor immunology and research that interfaces with clinical and physical sciences.

Training is available in DNA repair, replication and mutagenesis; regulation of cellular proliferation and differentiation including growth factors, signal transduction pathways and intercellular communication; molecular immunology, tumor virology and pathogenesis; molecular genetics and epidemiology of cancer; and human disease models and gene therapy. Unique training resources and core facilities are supported by the NCI-designated UNC Lineberger Comprehensive Cancer Center.

Preceptors are: Steven Bachenheimer, Albert Baldwin, Victoria Bautch, David Brenner, Keith Burnage, Sharon Campbell, Stephen Chaney, David Clemmons, Edward Collins, Mania Cordeiro-Stone, Blossom Damania, Channing Der, Robert Durania, Shelton Earp, Beverly Emede, Jeffrey Fralinger, Frank French, Jack Griffin, Eng-Shang Huang, Clyde Hutchison III, Kenneth Jacobson, Rudolph Juliano, David Kaufman, William Kaufman, Shannon Kenney, Ryszard Kole, Steven Leadon, David Lee, Patricia Maness, William Marzluff, Beverly Mitchell, Joseph Pagano, Leslie Parise, Mark Peifer, Charles Perou, Tom Pates, Nancy Raab-Traub, James Raleigh, Dale Ramsden, Jude Samulski, Aziz Sanear, John Sondek, Ronald Swanson, Lisnan Su, Holden Thorp, Jenny Ting, Ronald Truman, Michael Topal, Terry Van Dyke, Kevin Weeks, Bernard Weissman, Elizabeth Wilson, Yue Zong and Yi Zhang.

Candidates must be U.S. citizens or permanent residents. For an informational brochure or to apply (include curriculum vitae, three letters of recommendation, a statement of research interests and graduate school records) write to:

**Joseph S. Pagano, M.D.
CB 7295**

**UNC Lineberger Comprehensive Cancer Center
School of Medicine
University of North Carolina at Chapel Hill
Chapel Hill, NC 27599-7295
<http://cancer.med.unc.edu>**

UNC's Comprehensive Cancer Center is an Affirmative Action/Equal Opportunity Employer. Minority applicants are encouraged voluntarily to identify themselves.

INNOVATION

COMES NATURALLY TO US.

Taking our lead from nature, Genencor International creates biocatalytic proteins and biomaterials for a wide variety of applications in the healthcare, agriculture and industrial/consumer chemical markets. As a diversified biotechnology company, our proprietary *i-biotech*TM approach uses integrated technology platforms to deliver innovative solutions to our customers rapidly and cost-efficiently. With 250 products and over \$300 million in sales, we're working to make safer, more effective drugs and more powerful cleaning products. We're also enabling the efficient production of chemicals and are working on new breakthroughs to advance "green chemistry" as well as fuel the world of the future. To get us there, we are seeking more talented professionals who—like us—are innovative by nature.

To view our job opportunities, visit our website at

www.genencor.com.

As one of the top biotechnology companies in the world, Genencor offers an informal, highly creative work setting in which high team spirit, open communication and environmental responsibility are considered company hallmarks. Our competitive compensation and benefits package features a generous 401(k) matching plan, stock options, and a retirement plan. For consideration, please submit your resume/c.v. to: Genencor International, Inc., 925 Page Mill Road, Palo Alto, CA 94304-1013, Fax: (650) 845-6503, email: hr@genencor.com. Background checks will be conducted. An equal opportunity employer M/F/D/V.



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POSITIONS OPEN

PHYSICIAN-IN-CHIEF MEMORIAL HOSPITAL FOR CANCER AND ALLIED DISEASES

Memorial Sloan-Kettering Cancer Center

Memorial Sloan-Kettering is seeking an individual to lead the clinical activities and the programs in clinical investigation and education. The Physician-in-Chief oversees all inpatient and outpatient clinical activities and is responsible for the hospital's research programs. We encourage applications from Physicians who have outstanding clinical credentials (preferably in an area of oncology), have a track record in clinical investigations, and can provide strong leadership. This individual will be in a position to lead collaborations with neighboring institutions, Cornell-Weill Medical College, and Rockefeller University. Please send curriculum vitae and bibliography to:

Philip H. Gutin, M.D.
Chairman, Search Committee
c/o Joyce Stichman, Vice President,
Academic Administration
Memorial Sloan-Kettering Cancer Center
1275 York Avenue
New York, NY 10021
Telephone: 212-639-6563
E-mail: stichmaj@mskcc.org

MSKCC is an Equal Opportunity/Affirmative Action Employer.

SCIENTIFIC COPY EDITORS: The prestigious *Nature* monthly journals seek to recruit a Copy Editor and a Senior Copy Editor. Successful applicants will work closely with editors and authors to make complex technical manuscripts clear, concise, consistent with our style, and accessible to nonspecialist readers. In addition, the Senior Copy Editor will manage a team of six Copy Editors, determine style for the journals in consultation with the Editors, and hire and train new Copy Editors. Applicants should have a biology degree, excellent literary abilities, routine computer skills, an eye for detail, and the ability to meet regular deadlines. Graduate coursework or laboratory experience in molecular/cell biology is an advantage. Copy editing experience is required for the senior position and helpful for the other position, but a talent for working with words is most important. These full-time positions in our Manhattan office offer competitive salary and benefits, a lively work environment, exposure to important developments in biomedical sciences, and the opportunity to influence a major scientific journal. Please send cover letter stating which position you are applying for, plus curriculum vitae and scientific text on which you have worked, to: **Executive Editor, Nature America, 345 Park Avenue South, New York, NY 10010-1707. FAX: 212-689-9109; e-mail: m.maddock@natureny.com** before 7 May 2001.

EXPERIMENTAL PATHOLOGY Medical University of South Carolina

The Department of Pathology and Laboratory Medicine is seeking two faculty members to join its Division of Research. Appointments will be full-time at the **ASSISTANT** or **ASSOCIATE PROFESSOR** level on a tenure track. The area of research is open but should involve some aspect of experimental pathology. Research interests of current division members include cancer biology, viral and bacterial pathogenesis, and the pathobiology of neurosensory systems and aging. Qualifications include a Ph.D., M.D., or equivalent degree and demonstration of the ability to develop an independent, extramurally funded research program.

Please forward curriculum vitae, a statement of research interest, and the names of three references to:

Janice M. Lage, M.D.
Professor and Chair
Department of Pathology and
Laboratory Medicine
Medical University of South Carolina
165 Ashley Avenue, Suite 309
P.O. Box 250908
Charleston, SC 29425

The Medical University is an Equal Opportunity Employer.

POSITIONS OPEN



TENURE-TRACK POSITIONS The Hebrew University of Jerusalem The Faculty of Medicine Jerusalem, Israel

The Faculty of Medicine is accepting applications for tenure-track positions in the major fields of biology and biomedical research that will be available starting October 2001.

Ph.D. and/or M.D. degree and postdoctoral training are required. Excellence in research and teaching will be of prime importance for decisions of the Search Committee. Candidates are expected to develop independent research. Curriculum vitae; list of publications; three to five selected reprints; research plans; and three letters of recommendation addressed to the Dean, **Professor Y. Matzner**, should be sent to: **Office of the Dean, Faculty of Medicine, Hebrew University of Jerusalem, P.O.B. 12272, 91120 Jerusalem, Israel.** Review of the applications will begin on May 15, 2001, and will continue until the positions are filled.

ASSISTANT PROFESSOR OF PHARMACEUTICAL SCIENCES Mylan School of Pharmacy and the Graduate School of Pharmaceutical Sciences Duquesne University Pittsburgh, Pennsylvania

The Pharmaceutical Sciences Division seeks to fill multiple tenure-track positions in pharmaceutical analysis/pharmaceutical chemistry, pharmacology/toxicology, and pharmaceuticals beginning July 1, 2001. Applicants should possess a Ph.D. degree in a suitably related field. Postdoctoral experience is required and a pharmacy background is desired. Successful candidates will be expected to teach in the entry-level Doctor of Pharmacy program and the M.S./Ph.D. graduate programs and to develop vigorous, creative, and extramurally funded research programs. Applicants should submit a letter of intent accompanied by curriculum vitae, a summary of research interests, and at least three letters of reference to: **Dr. James K. Drennen, III, Head, Pharmaceutical Sciences Division, Duquesne University, Pittsburgh, PA 15282. Telephone: 412-396-6315; FAX: 412-396-4660; e-mail: drennen@duq.edu.** For more information about the Mylan School of Pharmacy, the Graduate School of Pharmaceutical Sciences, and Duquesne University, visit our website: <http://www.pharmacy.duq.edu>. Applications will be accepted until positions are filled. An Affirmative Action Employer.

CHAIR IN MEDICAL ETHICS

The Vanderbilt University School of Medicine invites applications for the Ann Geddes Stahlman Chair in Medical Ethics to begin July 2002. The Stahlman Chair is a fully endowed Chair in the School of Medicine and is explicitly designated to contribute to the promotion of humanism in medicine. The individual who holds this Chair may be, by background and training, a scholar in ethics, philosophy, nondenominational theology, law, or medicine. Applications are sought from distinguished individuals with strong records of scholarship, teaching, and experience in the field of medical ethics. The Stahlman Professor is expected to be appointed with tenure at the level of **PROFESSOR**. Send letter of interest, curriculum vitae, and names with contact information for at least three references to:

Frank Boehm, M.D., Search Committee Chair
Ann Geddes Stahlman Chair in Medical Ethics
Vanderbilt University School of Medicine
Office of Faculty and Academic
Administrative Affairs
320 Light Hall
Nashville, TN 37232-0260

Vanderbilt University is an Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

Dartmouth Medical School seeks a **FACULTY MEMBER** in the Department of Anatomy at a rank commensurate with experience and qualifications.

Essential qualifications include the M.D. or Ph.D. degree, a strong record of teaching histology to medical students and of pursuing ancillary related interests (such as research in basic science) and possession of excellent organizational and interpersonal skills. Candidates with an additional strong record of teaching embryology to medical students and of innovation in medical education are especially sought. Experience teaching human anatomy to medical students, practicing physicians and/or graduate medical trainees, and in teaching underrepresented minority students will be favorably regarded.

Letters of application should include curriculum vitae and an accompanying letter summarizing relevant academic experiences. Please include the names and contact information of at least three references. Letters of application and other inquiries should be sent to: **Martha D. McDaniel, M.D., Chair of the Search Committee for Anatomy, c/o Ms. Colleen King, Department of Anatomy, Dartmouth Medical School HB 7100, Rensselaer 230, Hanover, NH 03755-3832.** Review of applications will commence June 1, 2001. Dartmouth is an Equal Opportunity/Affirmative Action Employer and strongly encourages applications from women and minority candidates.

PH.D. RESEARCHER POSITION

ANESTHESIOLOGY RESEARCH. The University of California, Irvine, will be recruiting during the months of April 20, 2001, to July 5, 2001, for an **ASSISTANT PROFESSOR**, tenure track. Requirements include Ph.D. or M.D. with significant research training or experience. Molecular biology experience is an asset. Opportunities for experimental and clinical research and collaborations with the basic sciences, including biomedical engineering. Present departmental research areas include gas kinetics in anesthesia during nonsteady state (NIH-funded program, HL-42637, systems to cellular physiology) and the study of mechanisms of anesthesia and memory (includes PET and MRI imaging technologies). Duties will include teaching of residents and medical students. Apply to: **Peter H. Breen, M.D., FRCP, Vice Chair and Director of Academic Affairs, Search Committee Chair, Department of Anesthesiology, UCI Medical Center, 101 The City Drive South, Orange, CA 92668. FAX: 714-456-7702.** UCI is an Equal Opportunity Employer committed to excellence through diversity.

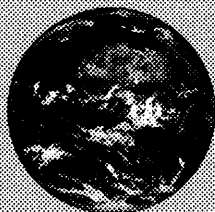
FACULTY POSITION IN ANATOMY

Mercer University School of Medicine announces a fully funded, tenure-track position in anatomy. The successful applicant will be involved in problem-based teaching of medical students and will assist in gross anatomy laboratory instruction. The successful candidate will be encouraged to develop an independent, competitive research program. Applicants must possess a Ph.D. (preferably in anatomy) and/or an M.D. with postdoctoral training. Faculty rank will be commensurate with experience. Applications will be accepted until the position is filled. Submit curriculum vitae, statement of career goals and objectives, and names of three references to: **Dr. Robert J. Moon, Chairman, Division of Basic Medical Sciences, Mercer University School of Medicine, Macon, GA 31207.** Equal Opportunity/Affirmative Action Employer.

RESEARCH FELLOWS/SCIENTISTS

Positions available in (1) apoptotic regulation and (2) signal transduction in glycolytic enzyme regulation. The second position listed requires advanced experience in protein chemistry including purification and analysis. Salaries commensurate with experience. Apply to: **Zheng Dong, Ph.D. or M.A. Venkatachalam, M.D., Department of Pathology, University of Texas Health Science Center, 7703 Floyd Curl Drive, MSC7750, San Antonio, TX 78229-3900.** The University of Texas Health Science Center is an Equal Employment Opportunity/Affirmative Action Employer.

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Research
Scientist
Skin Biology

UNILEVER has the distinction of ranking with the top consumer products companies in the world in sales and innovation. Our success is built upon collaborative scientific research and product development efforts resulting in over 1000 nationally and internationally known brands including Dove, Lever 2000, Wisk, "all", Vaseline, Pond's, ThermaSilk, Suave, Calvin Klein Cosmetics, Lipton, Ben & Jerry's, and Breyer's Ice Cream. This position is based at our global research facility in Edgewater, NJ, located on the Hudson River within 20 minutes of Manhattan's diverse academic, entertainment and cultural resources.

Research Scientist Skin Biology

This position, within our clinical unit, will have responsibility to design and execute clinical trials aimed at delivering biological understanding on how our skin care products are working. You will be involved in all aspects of clinical studies, from protocol design, study coordination, to bio-physical measurement, visual grading and the acquisition samples for bio-chemical analysis. The successful candidate will have a strong scientific background with a PhD in the Biosciences (Human Biology, Physiology, Pharmacology or related disciplines). Experience in the area of

skin biology and clinical research are preferred but not required. The position demands a multidisciplinary thinker with leadership potential.

We offer a competitive salary, flexible benefits including tuition assistance, and a dynamic environment filled with learning and discovery beyond conventional scientific boundaries. For consideration please forward your resume to: Human Resources Dept. RSSB-S, Unilever Research US, 45 River Road, Edgewater, NJ 07020 or E-Mail: job.mca@unilever.com Please place only the letters RSSB-S as the subject of the e-mail. We appreciate your interest in our company and will contact applicants who most closely meet our immediate requirements. Applicants must be authorized to work in the USA. Unilever is an Equal Opportunity Employer m/f/d/v.



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A biotech leader in microfluidic protein chip technology and Immediate Response Diagnostics® has the following openings in R&D:

PRINCIPAL SCIENTIST

Lead the R&D of diagnostic products that are based on Biosite's microfluidic protein chip technology. Requires an outstanding hands-on scientist with the demonstrated ability to solve difficult technical problems and to lead a project from feasibility through development and transfer to manufacturing. Ph.D. in chemistry, biochemistry, biology, biophysics, bioengineering or related field and 7+ years of relevant experience.

RESEARCH SCIENTIST

R&D of products that are based on Biosite's microfluidic protein chip technology. Requires an outstanding ability to design and conduct robust and efficient experiments and a strong desire to bring products to market. Ph.D. in chemistry, biochemistry, biology, biophysics, bioengineering or related field and 0-7 years of relevant experience.

Send resume to: Biosite Diagnostics, Attn: Human Resources, 11030 Roselle Street, San Diego, CA 92121; Fax: 858-597-4090; E-mail: hr@biosite.com; visit us at: www.biosite.com

EOE

At DSM Catalytica Pharmaceuticals, the world's leading integrated full-service drug development and manufacturing partner to the pharmaceutical industry, we challenge brilliant minds and offer unlimited opportunity for professional growth. Our facility in Greenville, NC, just east of Raleigh, welcomes your contribution of excellence in one of the following openings:

Senior Development Scientist

Individual will lead and participate in process development, scale-up and optimization of parenteral dosage forms. Will execute technology transfer of new parenteral products, including batch manufacturing, clinical trials and related processes that will lead to product commercialization.

Principal Development Scientist

Individual will lead and participate in process development, scale-up and optimization of parenteral dosage forms. Will assist the Senior Scientist with executing technology transfer of new parenteral products, including batch manufacturing, clinical trials and related processes that will lead to product commercialization.

Both positions require a BS degree in a Physical or Biological Science (or related areas) with 4-5 years sterile development experience within the pharmaceutical industry. Background in technology transfer, process/formulation development, process scale-up, or sterile product technical support is required.

We offer competitive salaries and benefits including matching 401(k), on-site credit union, educational reimbursement, fitness center and year-end bonuses. For confidential consideration, please forward resume indicating job title and SM#1033 with salary history to: Human Resources, DSM Catalytica Pharmaceuticals, Inc. P.O. Box 1887, Greenville, NC 27835. Fax: 252-707-7731, Email: hr@catalytica-pharm.com. Please visit our website at www.catalytica-inc.com or call our JobLine: 1-800-327-8955. EOE

DSM Catalytica Pharmaceuticals

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To support our expanding drug discovery efforts in Inflammation and Oncology, the Signal Research Division of Celgene has an immediate opening in our Drug Discovery Department.

Director, In Vivo Pharmacology

As Director, you will lead a team of pharmacologists in the evaluation of novel small-molecule drug candidates that modulate signaling pathways in *in vivo* models of inflammation and oncology. Key responsibilities include establishing new disease models in inflammation and oncology, as well as planning, coordinating and implementing studies to support project team goals. Of equal importance, is the management and career development of department members. The successful candidate will have at least 10 years of relevant experience in the pharmaceutical or biopharmaceutical industry along with demonstrated ability to move small molecules from initial leads to the clinical candidate stage. Experience in conducting immune and inflammatory disease studies is required.

Additional experience with oncology models is a plus. Must have excellent written and oral communication skills and the ability to work in a fast-paced, team-oriented drug discovery environment. Code: SDAP

Position is commensurate with the experience level of the candidates. Celgene offers a competitive compensation package that includes equity participation. If your skill set fits this job description, please send resume, indicating Job Code to: Celgene Corp-Signal Research Div., Attn: L. Cain, 5555 Oberlin Dr., San Diego, CA 92121, E-mail: lcain@signalpharm.com EOE

POSITIONS OPEN

RESEARCH ASSOCIATE

The University of Arkansas for Medical Sciences, Department of Pediatrics, at Arkansas Children's Hospital is seeking a qualified individual to design, perform, and analyze experiments which involve cloning, bacteriophage expression of proteins, mutagenesis, cDNA sequencing, subcloning, protein expression in *E. coli* and baculovirus systems, and enzyme kinetics to identify unknown processing proteins. Qualified candidate will oversee and train other technical personnel to carry out research projects relevant to the overall program. This position requires a Ph.D. in biomedical sciences and two years of direct work experience.

Interested candidates should send curriculum vitae and written inquiries to: **Research Associate, P.O. Box 250960, Little Rock, AR 72225.** *UAMS is an Equal Opportunity/Affirmative Action Employer and actively seeks the candidacy of minorities, women, and persons with disabilities.*

An opening is expected for a research position at the **INSTRUCTOR** level in the Department of Radiology-NMR Center at the Massachusetts General Hospital and Harvard Medical School. Candidates should have a background in biophysics and/or biomedical engineering. Preferred research interests would be in the areas of brain physiology and functional magnetic resonance imaging.

Applicants must possess a Ph.D. or equivalent degree, a promising record of publications in the area of brain physiology and functional MRI contrast mechanisms, and a proven ability to initiate and conduct multidisciplinary research. The successful candidates will be expected to establish collaborative studies with other Scientists within the Department.

Applicants should send a letter of interest and curriculum vitae to: **Bruce Rosen, M.D., Ph.D., Director, MGH-NMR Center, Building 149(2301), 13th Street, Charlestown, MA 02129.** *The Massachusetts General Hospital is an Equal Opportunity Employer.*

POSTDOCTORAL POSITION VIRAL AND CELLULAR IMMUNOLOGY

Postdoctoral position available immediately in the Immunology and Viral Pathogenesis section of Influenza Branch, Centers for Disease Control and Prevention, to study immune response to influenza virus (particularly in the elderly) and developing novel strategies of vaccination. These studies involve close interactions with Emory Vaccine Center and Emory University. Candidates should have prior training in immunology and a strong work ethic. Salary is very competitive. Send curriculum vitae and names, addresses, telephone numbers, and e-mail addresses of three references to: **Drs. Jackie Katz or Prakash Sambhara, Immunology and Viral Pathogenesis Section, Influenza Branch, Mail Stop G16, Centers for Disease Control and Prevention, 1600 Clifton Road, Atlanta, GA 30322.** E-mail: JKatz@cdc.gov or SSambhara@cdc.gov.

POSTDOCTORAL FELLOWSHIP: NIH-funded position, the Section of Atherosclerosis, Department of Medicine, Baylor College of Medicine. Qualified applicants should have a Ph.D. or M.D. and experience in molecular biology with an interest in inflammation and vascular biology. Highly competitive salary will be offered and is negotiable depending upon experience. Eligibility for NIH training grant position (U.S. citizen or resident) preferred. Reply with curriculum vitae and three references to: **Christie M. Ballantyne, M.D., FACC, Professor, 6565 Fannin, MS A601, Houston, TX 77030.** E-mail: cmb@bcm.tmc.edu. *Baylor College of Medicine is an Equal Opportunity/Equal Access/Equal Affirmative Action Employer.*

RESEARCH COORDINATOR required for statistical sciences and epidemiology. Master's degree and prior experience in epidemiology preferred. Please mail curriculum vitae and cover letter to:

**Children's Memorial Hospital
Attention: JD/CT
2300 Children's Plaza, Number 14
Chicago, IL 60614**

Equal Opportunity Employer.

POSITIONS OPEN



CHAIRMAN DEPARTMENT OF RADIOBIOLOGY AND SCIENTIFIC DIRECTOR Armed Forces Radiobiology Research Institute Dual Appointment Within the Uniformed Services University of the Health Sciences

The Uniformed Services University of the Health Sciences (USUHS) School of Medicine and the Armed Forces Radiobiology Research Institute (AFRRI) invite applications and nominations for a dual appointment as Chairman, Department of Radiobiology (USUHS) and as Scientific Director (AFRRI). We seek an individual with an applied research and teaching experience in radiation biology, health physics, or a related discipline. Applicants must have outstanding interpersonal skills and managerial experience working with a multidisciplinary staff of Scientists and technicians focused on medical countermeasures against radiation injuries. Applicants must also be able to establish and lead a new Department of Radiobiology, recruit new faculty and graduate students, develop curricula leading to the M.S. and Ph.D. degrees, and attract outside funding to support basic research as well as manage the daily operations of the Department within the School of Medicine.

Review of applications will begin on July 1, 2001. Letters of nomination and application should be sent to: **Search Committee, Department of Radiobiology/Scientific Director, c/o Dr. David Ledney, Chairman, Radiation Medicine Department, Armed Forces Radiobiology Research Institute, Building 42, 8901 Wisconsin Avenue, Bethesda, MD 20889-5603.** Additional information is available on the Uniformed Services University of the Health Sciences website: <http://www.usuhs.mil/chr/vacancies/htm>. *USUHS and AFRRI are Equal Employment Employers.*

FACULTY POSITION University of Michigan

The University of Michigan College of Engineering, Department of Materials Science and Engineering, and School of Dentistry Department of Biologic and Materials Science have an opening for a tenure-track faculty position at the level of **ASSISTANT PROFESSOR**. Candidates at more senior levels with records of outstanding accomplishment will also be considered. Applicants must have a Ph.D. degree, be qualified to teach undergraduate and graduate courses in materials science and engineering, and should plan to develop independent and cooperative research programs. A demonstrated research record or potential is required. Preferred areas of expertise include biomaterials, polymers, biosensors, tissue engineering, and micro/nanofabrication. Send curriculum vitae and a list of references to:

**Chairman, Biomaterials Search Committee
Department of Materials Science and Engineering
The University of Michigan
2300 Hayward Street
Ann Arbor, MI 48109-2136**

*An Equal Opportunity/Affirmative Action Employer.
Women and minority candidates are encouraged to apply.*

FACULTY POSITIONS EMORY UNIVERSITY

The Laboratory of Biochemical Pharmacology at Emory University seeks a **VIROLOGIST** and a **MOLECULAR BIOLOGIST** with strong backgrounds in molecular virology and biochemistry of HIV. A strong publication record is essential. Candidate must have a Ph.D. in biological science and at least three years of postdoctoral experience. *U.S. citizen or permanent resident status is required.* Please e-mail curriculum vitae to: rschina@emory.edu by June 15, 2001. *Affirmative Action/Equal Opportunity Employer.*

POSITIONS OPEN

CHAIR DEPARTMENT OF PHARMACOLOGY

The Ohio State University, College of Medicine and Public Health, announces its search for the Chair of the Department of Pharmacology. We are seeking a dynamic leader to direct a modern Pharmacology Department that emphasizes research in molecular and cellular pharmacology and pharmacogenomics. The Chair is also expected to participate in further development of clinical pharmacology/experimental therapeutics. A unique opportunity exists to establish excellence in this area of research in a comprehensive academic medical center. The successful candidate will have the opportunity to interact with the NCI-designated Comprehensive Cancer Center and the Heart and Lung Institute and will have ready access to a modern transgenic animal facility, genomics and proteomics facilities, tissue procurement shared resource, and mass spectrometry. While a distinguished record of academic achievement is required, the Chair will also need the personal skills to recruit and mentor outstanding new faculty. The successful candidate should possess the academic credentials (Ph.D. or M.D. or both) to qualify as a **TENURED PROFESSOR** in the College of Medicine and Public Health. Applicants should submit detailed curriculum vitae; a description of research interests and goals; a history of past and present grant support; and the names, addresses, and telephone/FAX numbers of four references to: **Samson T. Jacob, Ph.D., Professor and Chair, Pharmacology Chair Search, The Ohio State University, Department of Molecular and Cellular Biochemistry, 333 Hamilton Hall, 1645 Neil Avenue, Columbus, OH 43210-1218.** Consideration of completed applications will begin on May 31, 2001. *The Ohio State University is an Affirmative Action/Equal Opportunity Employer.*

RESEARCH SCIENTISTS

BioGenex is a leader in the development, manufacture, and marketing of high-quality diagnostic systems. We have tremendous career opportunities in our research and development Cellular Pathology Department for entry-level Research Scientists.

The position will focus on DNA probe technologies and antibody development respectively and will require an advanced degree. You should have working knowledge and experience in some of the following areas: cell biology, molecular biology, immunology, oncology, histology, immunohistochemistry, *in situ* hybridization, antibody development and characterization, signal amplification, molecular cloning, and protein expression.

In addition, you should be strong in use of scientific computer programs, assay design, and assay development. Having some pathology background will be an added advantage.

BioGenex offers competitive salary and excellent health and benefits package with 401(K) plan. Kindly forward your résumés to e-mail: resume@biogenex.com; or FAX: 925-275-0580; website: <http://www.biogenex.com>. Address: BioGenex, 4600 Norris Canyon Road, San Ramon, CA 94583.

The Investigational Biologics Group under the direction of **Jon Wigginton, M.D.**, in the Center for Cancer Research at the National Cancer Institute has **POSTDOCTORAL TRAINING POSITIONS** available. Ongoing research efforts focus on the investigation of mechanisms of interface between endogenous and therapeutically driven immune responses and the regulation of tumorigenesis (i.e., angiogenesis, apoptosis); the design of biologically targeted therapeutic strategies (cytokine combinations, antiangiogenics) for solid tumors; and the direct translation of novel approaches into early phase clinical investigation. The candidate should hold either a Ph.D. or M.D. and possess an interest in immunology/oncology and significant experience in molecular biology and/or cellular immunology. Candidates must have less than five years of postdoctoral experience. Correspondence, names of references, and curriculum vitae should be sent to: **Dr. Jon Wigginton, Building 560, Room 31-93, NCI-CCR, Frederick, MD 21701-1201.** E-mail: wiggintonj@pb.nci.nih.gov.

The Mary Lyon Centre, Harwell, Oxfordshire

The Medical Research Council is establishing a Centre of Excellence based on the MRC Harwell Campus, which is already host to two internationally renowned research Units. The MRC Mammalian Genetics Unit and UK Mouse Genome Centre (Director Professor Steve Brown) are world-leading centres for mouse genetics and genomics, with an exciting variety of research programmes focused on gene function studies and human disease models and the development of new approaches to post genomics. The MRC Radiation and Genome Stability Unit is an inter-disciplinary centre for studies of genome stability and radiation effects and their relevance to human health.

The new Centre of Excellence will promote the development and study of new mouse models of human disease, which are crucial to translating human genome sequence data into improved health. This new premier purpose-designed facility will be at the cutting edge of modern technology and will be designed to meet the highest possible standards for animal welfare and provide a first-class environment for researchers from within the academic community.

The facility will be commissioned in the Autumn of 2002. Several exciting opportunities exist:

Head of Centre

We seek a Head of Centre with a substantial, proven track record in both relevant research and in management. As well as being accountable for the Centre and its future successful development, the post-holder will work closely with the Unit Directors, the Scientific Steering Group, the wider academic community and other interest groups, including the public.

Veterinary Pathologist

The postholder will provide a valuable resource not only to the Centre, but to the MRC as a whole, as well as developing their own research programme and heading up a small Group. High level expertise in veterinary mouse pathology and a suitable standard of professional pathology/veterinary pathology qualifications are sought. The postholder must also demonstrate considerable abilities in maintaining the very highest possible standards of animal welfare, acting as a focal point of contact with, for example, the Home Office Inspectorate and Named Vet.

Head of Transgenic Facility

A senior appointment for an experienced researcher who wishes to manage and help develop a major facility within the new Mary Lyon Centre. A proven track record in the usual technical skills is also required.

Head of Mutagenesis Facility

A senior appointment for an experienced scientist with a track record in relevant mouse genetics research who will head-up this Core Facility.

All positions are established subject to completion of a satisfactory probationary period.

The payment of certain relocation expenses will be considered.

For an information pack, which contains details of how to apply, please contact the Administrator, Julie Cox, Medical Research Council, Harwell, Didcot, Oxon OX11 0RD, tel: 01235 834393, e-mail: marylyoncentre@har.mrc.ac.uk

Informal enquiries welcomed as above, or to Professor Steve Brown: sbrown@har.mrc.ac.uk

Closing date: 18 May 2001.

MRC
Medical Research Council

'Leading Science for Better Health'

The Medical Research Council is an Equal Opportunities Employer and operates a strict no smoking policy.

Staff Scientist Position Computational Biophysics Section Laboratory of Biophysical Chemistry, NHLBI

The Computational Biophysics Section of the Laboratory of Biophysical Chemistry, National Heart, Lung and Blood Institute is seeking an outstanding individual with a Ph.D. in Chemistry, Biophysics, Molecular Biology, Mathematics, Engineering, Computer Science or other related discipline. Postdoctoral applicants will also be considered. Candidates should have expertise in one or more of the following three research areas:

Development and application of theoretical and simulation methods for studying biological macromolecules;

Development of novel computational approaches for the determination of structures of macromolecular complexes using cryo-electron microscopy;

Application and development of bioinformatics tools. Opportunities exist to analyze gene and protein expression level data to study vascular function and disease or cell biology using state-of-the-art clustered computing resources as well as public and commercial tools for DNA and protein sequence and structure analysis.

The successful candidate will be offered a competitive salary commensurate with experience and qualifications under Title 42. Appointees must be US citizens, resident aliens, or nonresident aliens with a valid employment authorized visa.

Applicants should submit a curriculum vitae and arrange for three letters of recommendation to be sent to:

**Ms. Christine Fisher, Personnel Office
National Heart, Lung, and Blood Institute
31 Center Drive, MSC 2484, Building 31, Room 5A28
Bethesda, MD 20892-2484
FisherCM@nhlbi.nih.gov**

**Please include vacancy identifier, HL-01-0035,
on ALL correspondence.**

Applications must be received no later than **May 1, 2001.**

The NIH is an Equal Opportunity Employer. Applications from women, minorities, and persons with disabilities are strongly encouraged. The NHLBI/NIH is a smoke-free workplace.

GENOMICS INSTITUTE OF THE NOVARTIS RESEARCH FOUNDATION



Research Group Leaders in Molecular Genetics/Genomics

We are seeking Faculty-Level Scientists to lead research groups in several areas of Biomedical Science:

- Cancer Biology/Signal Transduction
- Immunology
- Neurobiology/Neurodegenerative Mechanisms

We require a strong publication record along with a desire to apply functional genomic approaches in mammalian systems. Three years or more of postdoctoral experience is preferred. GNF provides a unique environment for developing a world-class research program. Outstanding resources include core facilities in RNA profiling, high-throughput protein and antibody production, cell-based screening, proteomics, forward mouse genetics, computational biology and chemistry. Please submit CV and a statement of research interests to:

**Genomics Institute of the Novartis Research Foundation (GNF)
Human Resources
Job Code: SK
3115 Merryfield Row
San Diego, CA 92121
Fax: 858.812.1670
Email: jobs@gnf.com (include Job Code on subject line).**

The Genomics Institute of the Novartis Research Foundation (GNF) is located in the Torrey Pines area of San Diego, CA. We are developing and applying novel technologies for genomewide functional characterization. A multi-disciplinary research institute fully funded by the Novartis Foundation, we are dedicated to the development and application of new methods and techniques to define novel gene function. EOE

www.gnf.org

POSITIONS OPEN

IMMUNEX

Creating the Future of Medicine™

When you believe anything is possible, it is.

At Immunex, we have the vision and potential to achieve great things. In less than 20 years, we have grown to be one of the largest biotechnology firms in the nation, and Immunex has just been named one of the "Top 100 places to work" by *Fortune Magazine*. Based in Seattle, Washington, our employees enjoy all the benefits, resources, support, and freedom to accomplish great science.

The Cancer Biology Department is devoted to defining new therapeutic approaches in oncology. This program is employing leading-edge technologies in the discovery and validation of new product candidates. Immunex invites individuals with an established record of scientific achievement and expertise in cancer biology and research to apply for the following position:

STAFF SCIENTIST

This position will participate in both basic and applied research projects ranging from the discovery of molecules that regulate the immune response against tumors or promote tumor cell apoptosis to preclinical testing of proprietary molecules in *in vivo* and *in vitro* models of tumor growth. Competitive applicants will have expertise in one or more of the following areas: basic signal transduction in neoplastic cells; *in vitro* and/or *in vivo* models of tumor growth; progression and metastasis; tumor immunology; and/or viral models of transformation/immunity. Excellent communication skills coupled with the ability to work in a fast-paced, collaborative team environment are essential. The ideal candidate will have five to 10 years of laboratory experience in the biopharmaceutical industry or in an academic medical context. Ph.D. in a relevant scientific discipline (immunology, cell biology, molecular biology) or M.D. followed by postdoctoral bench research experience required.

Please submit a résumé and cover letter specifying Job Number 01-0196 to: ImmunexCareers@webhirerpc.com. Website: WWW.IMMUNEX.COM/CAREERS.

Immunex is an Equal Opportunity Employer committed to diversity.

ASSISTANT PROFESSOR: The Department of Pediatrics, Indiana University School of Medicine, is seeking a motivated candidate with a Ph.D. degree for a faculty position at the Assistant Professor level (University tenure track) to pursue research in the study of hemolymphopoiesis. Of particular interest is the application of genetic and *in vitro* models to study lymphopoiesis and erythropoiesis as they relate to intracellular signaling. A strong publication record in these two fields of study is required. The incumbent will be joining a well-established developmental hematopoiesis group and will be expected to pursue independent programs in original basic research, secure external grant support, and establish productive collaborations with other members in the Department. Applicants are required to have postdoctoral experience in both immunology and hematology and a history of past and present grant support. Applicants should send their curriculum vitae to: **James Lemons, M.D., Director, Section of Neonatal-Perinatal Medicine, James Whitcomb Riley Hospital for Children, 699 West Drive, Indianapolis, IN 46202-5119.** *Indiana University is an Equal Opportunity/Affirmative Action Educator, Employer, and Contractor; Minorities/Females/Disabled.*

GENETIC RESEARCH POSITIONS. The new Center for Human Genetics Studies at the Mid-Hudson Family Health Institute in New Paltz, New York, is recruiting for a laboratory technician, **RESEARCH ASSISTANT**, and a **POSTDOCTORAL** individual for NIH-funded projects on movement disorders and mental retardation. Experience in molecular biology and positional cloning required. Interested candidates forward curriculum vitae, attention: **L. Karol**. FAX: 845-255-7340; e-mail: lkarol@fpinstitute.org.

POSITIONS OPEN

SENIOR RESEARCH MANAGER CELL AND MOLECULAR BIOLOGY Department of Molecular and Integrative Physiology University of Illinois, Urbana-Champaign

Position: A full-time (100%) **RESEARCH SCIENTIST** position in life sciences is available in the laboratory of **Professor Benita S. Katzenellenbogen** in the Department of Molecular and Integrative Physiology to oversee and manage the research activities of a large and active laboratory and to take a lead role in new research initiatives in hormonal regulation and the cell and molecular biology of breast cancer. This is an academic professional appointment with a generous benefits package. Initial appointment is for one year; renewable on an annual basis thereafter.

Qualifications: M.S./Ph.D. required (or B.S./B.A. with additional research experience required) in molecular biology, biochemistry, biology, pharmacology, physiology, or a related science area. Prior research and research management experience in academia or industry laboratories is highly desirable. The ability to learn quickly, to manage collaborative research projects, and to oversee laboratory personnel is essential.

Responsibilities: The individual will be responsible, in coordination with **Professor Katzenellenbogen**, for overseeing and being involved in the research activities of a large and active laboratory including collaborative projects and for managing and assisting personnel involved in studies on the cell and molecular biology of breast cancer and hormone action and gene expression regulation. This individual should be interested in taking a lead role in initiating new research projects related to the areas of interest of the laboratory.

Starting date: June 15, 2001, or as soon thereafter as possible. Salary is commensurate with background and experience. Applications must be received by June 4, 2001, for full consideration.

Send résumé and the names and full contact information for three persons who can serve as references to: **Professor Benita S. Katzenellenbogen, Attention: D. Wells (e-mail: d-wells2@life.uiuc.edu), Department of Molecular and Integrative Physiology, University of Illinois, 524 Burrill Hall, 407 South Goodwin Avenue, Urbana, IL 61801-3704.**

The UIUC is an Affirmative Action/Equal Opportunity Employer.

RESEARCH GENETICIST

The U. S. Department of Agriculture, Agricultural Research Service, Western Integrated Cropping Systems Research Unit, Shafter, California, is recruiting for a permanent full-time Research Geneticist. Incumbent will work independently to investigate upland and Acala cotton, *Gossypium hirsutum*, with the goals of increasing basic genetic knowledge of the species; enhancement of elite and primitive germplasm; and development and maintenance of genetic and germplasm resources. The incumbent's work will focus on problems of upland and Acala germplasm characterization, evaluation, and selection with special emphasis on plant traits relevant to biotic and abiotic stresses prevalent in the arid Southwest of the United States. Recognizing that much of the genetic variability resides in germplasm that is currently not accessible to improvement efforts, the incumbent will address this problem through screening, selection, evaluation, and enhancement efforts and expansion of the germplasm resource base. Applicants must have a Ph.D. with emphasis on genetics. Salary range is \$51,927 to \$94,862 (GS 12/13/14) per year (salary commensurate with experience). Obtain the full vacancy text via website: www.afm.ars.usda.gov/divisions/hrd/hrdhomepage/empopp.htm; or call **Barbie Ballengee; Telephone: 661-746-8000**; indicate Announcement Number ARS-X1W-1287. For technical details of the position, contact the Research Leader, **Michael R. McGuire; Telephone: 661-746-8001**. Applications must be postmarked by June 4, 2001. *USDA-ARS is an Equal Opportunity Provider and Employer. Applicants must be U. S. citizens.*

POSITIONS OPEN

RESEARCH AT THE FRONTIERS OF CHEMICAL BIOLOGY Carlsberg Laboratory: Biosector Division

Positions are available at Carlsberg Laboratory's new Biosector Division for a **SYNTHETIC CHEMIST** and a **BIOCHEMIST** with a Ph.D. in the relevant field. You will work within a multidisciplinary team with the goal of applying cutting-edge combinatorial technology in various disease areas. The Chemist should have experience in multistep syntheses and product analysis using NMR and MS. Solid-phase and/or polymer chemistry are an advantage but not required. The Biochemist should have experience in assay development and protein purification/characterisation. You should be a team player and have good verbal and written communication skills in English. **E-mail** for details: pms@crc.dk. Please forward a cover letter with curriculum vitae, publication list, and addresses/e-mail addresses of three references to: **Phaedria M. St. Hilaire, Carlsberg Biosector, Gamle Carlsberg Vej 10, DK-2500 Valby, Denmark**, or via e-mail. Application deadline: May 14, 2001. Anticipated start date: June/July 2001.

DIRECTOR OF PUBLIC OUTREACH

The American Association of Pharmaceutical Scientists, an international professional association in the metropolitan Washington, D.C. area, seeks a Director of Public Outreach to lead the Association's efforts in promoting scientific and educational awareness to members, educational leaders, and the general public. Successful candidate will possess a global knowledge of pharmaceutical sciences; excellent written and oral communication skills; interpersonal skills to interact with members and staff; and ability to interact with other associations, higher education institutions, government agencies, and media. PC and management skills are required. Must have more than five years of experience and a Ph.D. in pharmaceutical sciences or related disciplines. For more information on AAPS, visit our website: www.aapspharmaceutica.com. Excellent benefits. Send résumé and salary requirements to: **AAPS-HR, 2107 Wilson Boulevard, Suite 700, Arlington, VA 22201. E-mail: hr@aaps.org; FAX: 703-243-9054.** *Equal Opportunity Employer.*

The Department of Urology at University of California Los Angeles Medical Center is seeking a **DIRECTOR OF LABORATORY RESEARCH** in female urology and sexual dysfunction. The candidate must have demonstrated experience in smooth muscle physiology, molecular biology, and cell culture system techniques as well as an established publication record and an interest in investigating the fields of neurology and sexual dysfunction. Previous experience working with female genital and reproductive organs and an interest in CNS applications and neurobiology are desirable. The position involves teaching of students, residents, and Fellows. Salary and academic rank will be commensurate with experience and training. Send a letter of interest and curriculum vitae to: **Jean B. deKernion, M.D., Chairman, Department of Urology, c/o Carol Melitsoff, UCLA Department of Urology, Box 951738, Los Angeles, CA 90095-1738.** *Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.*

POSTDOCTORAL RESEARCH FELLOWSHIPS

Two Postdoctoral Research positions are available at the University of California VA Medical Center to work on molecular aspects of intestinal transport of water-soluble. Strong background in molecular biology is required. Interested applicants, please contact: **Professor Hamid M. Said, VA Medical Center 151, Long Beach, CA 90822. Telephone: 562-494-5811; e-mail: hmsaid@uci.edu.**

Senior Scientist / Research Scientist

Educational Requirements

- * Ph.D. required in Life Sciences or MS in Life Sciences

Experience Requirements

- * 2 to 5 years experience in a research or developmental environment.
- * Creative individuals with strong technical skills in primary tissue culture and/or animal behavior.
- * Proficiency in animal surgery is a plus.
- * Advanced computer skills and practical knowledge of biostatistics is desirable.

Job Description / Duties

- * Responsible for developing phenotyping assays.
- * Demonstrating success in technical proficiency, scientific creativity, collaboration with others, and independent thought.
- * Expert knowledge of scientific principles and concepts.
- * Post-Doctoral may serve as experience.

Candidates interested should fax or mail current curriculum vitae to:

Xenogen
Attn: Human Resources
5 Cedar Brook Drive
Cranbury, NJ 08512
Fax: (609) 860-8515



Opportunities in Biomedical Research

Cardion AG is a trans-Atlantic company integrating local gene delivery, stem cell technology and selective immunomodulation to build a sustained flow of innovative products for the treatment of heart and auto-immune diseases as well as transplant rejection. With its headquarters being located in Erkrath, Germany and a current headcount of over 70 employees, Cardion has recently started operations in Boston, MA. In order to support our R&D activities in the field of Transplantation and Immunology, Cardion Transplantation Inc., our wholly owned US subsidiary, is recruiting

1 RESEARCH SCIENTIST – Rheumatology

1 RESEARCH SCIENTIST – Transplantation Immunology

to support our rapidly growing and dynamic research team.

Assuming a central role in our preclinical development programmes, the successful candidates will be responsible for carrying out *in vivo* efficacy studies in small rodent animal model systems. The successful candidates will hold a Ph.D. or M.D. with more than 2 years of relevant post-doctoral training and will have several years of experience working either with small rodent models of arthritis (Position Rheumatology) or in performing organ transplants in small rodent models (Position Transplantation Immunology).

If you are interested in working for an established international biotechnology company that offers a competitive salary and excellent benefits package but has the feel of a start-up environment; if you are willing to contribute to pharmaceutical developments at the forefront of immunological sciences in close interaction with leading US and European immunologists; if you have good communication skills, the initiative and motivation to work independently and as part of a team, please send your resume to:

Human Resources
Cardion Transplantation, Inc.
20 Hampden Street
Boston, MA 02119

SR. STAFF SCIENTIST

Technology Development

ViroMed Laboratories, a GLP/cGMP contract testing company for the biotech and biopharmaceutical industry, is expanding and seeks a Sr. Staff Scientist for its new Technology Development group.

You will be responsible for developing, optimizing, validating and conducting a wide variety of viral and molecular biological assays using novel and emerging technologies under strict compliance with GLP/cGMP. In addition, you will be responsible for protocol development, management of technical staff, data interpretation and analysis. You will also support our technical sales effort and interact with clients and regulatory authorities.

Candidates should have a PhD in Molecular Virology, Virology, or a related field plus significant relevant experience managing a laboratory staff, a record of independent scientific leadership, and excellent communication skills. Familiarity with FDA regulations and the biotech drug development process is desirable.

We offer excellent opportunities for professional growth, a competitive salary, relocation assistance, health benefits and 401K plan. Send c.v. and salary requirements, to:

ViroMed Laboratories,
Attn: TD0401, 1667 Davis St., Camden, NJ 08104.
FAX (856) 342-8078
E-Mail: camdenhr@viromed.com
EOE M/F/D/V



ViroMed
Laboratories, Inc.



Molecular/Cellular Immunologist

The USDA, Agricultural Research Service (ARS), Arkansas Children's Nutrition Center (ACNC) is one of six ARS human nutrition research centers and is now recruiting for a Molecular/Cellular Immunologist to work in its Dietary Factors Program. The successful candidate will be expected to conduct research as part of a team and develop an independent research area involving *in vitro*, whole animal and human studies of the effects of diet and nutrition on immunity. One area of particular interest is the immune surveillance systems related to dietary prevention of cancers. The primary objective of the research is to understand the impact of a broad category of dietary factors and metabolic products on the immune system.

It is expected that this research will provide information pertaining to the (1) effects of dietary factors on the immune system, (2) effects of non-traditional dietary factors and probiotics on immune responses that affect development and health throughout the life cycle, and (3) development of biomarkers of immunity that are affected by dietary factor availability.

The candidate should have a Ph.D. and/or MD degree, an active and competitively funded research program, and a distinguished record of scholarly achievement. The ACNC has outstanding facilities and equipment, and the position comes with a highly competitive salary, start up funds and possible long-term base funding.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at 202-720-2600 (voice or TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call 202-720-5964 (voice or TDD).

For specific questions regarding application procedures, call: PATRICIA HIGGINS, 301-504-1517 OR EMAIL PHIGGINS@ARS.USDA.GOV. For technical questions pertaining to the position, call Dr. Tom Badger, ACNC Center Director, 501-320-2785

Submit applications to: **USDA, Agricultural Research Service Human Resources Division, ATTN: Patricia Higgins, 5601 Sunnyside Avenue, MAIL Stop: 5105, Beltsville, MD 20705-5105; FAX applications to: 301-504-1536; EMAIL applications to: scirecruit@ars.usda.gov.**

USDA is an equal opportunity provider and employer.

POSITIONS OPEN

NRC POSTDOCTORAL RESEARCH ASSOCIATE

The National Research Council (NRC) is accepting applications for an award for research to be conducted in residence at the U.S. Army Medical Research Institute of Infectious Diseases, Ft. Detrick, Frederick, Maryland. Applications are invited from individuals interested in pursuing research on the mechanisms of microbial pathogenesis and host resistance to infection with *Bacillus anthracis*. Molecular approaches will be used to characterize the fate of the infectious spore within the host (specifically in macrophages and the role that host antispore immune responses have in modulating the host-spore interaction). Our goal is to develop a vaccine that provides optimal early protection against infection.

Stipends begin at \$39,270 per annum with increments based on years of experience. Ph.D. or equivalent earned research Doctorate is required and U.S. citizenship is preferred. Experience in microbiology, cellular biology, immunology, and molecular genetics would be advantageous. Award will be for one year with possible renewal for up to three years maximum.

For further information, contact:

Dr. Susan Welkos, Bacteriology Division,
USAMRIID

1425 Porter Street

Ft. Detrick, Frederick, MD 21702-5011

Telephone: 301-619-4930

FAX: 301-619-2152

E-mail: susan.welkos@AMEDD.army.mil

Applications submitted directly to the NRC are accepted on a continuous basis throughout the year. Application postmark deadlines are January 15, April 15, and August 15, 2001, for reviews in February, June, and October respectively. Application materials can be obtained from the NRC website: <http://www.national-academies.org/rap>. For questions or assistance, contact: National Research Council, Associateship Programs, TJ 2114, 2101 Constitution Avenue, N.W., Washington, DC 20418. FAX: 202-334-2759; Telephone: 202-334-2760; E-mail: rap@nas.edu.

Early alert: **PROJECT LEADER**, USDA Forest Service, North Central Research Station, Grand Rapids, Minnesota. We anticipate filling a permanent, full-time Project Leader (Research Hydrologist, Stream or Wetland Ecologist, Geomorphologist, or Soil Biogeochemist) position in the Ecology and Management of Riparian and Aquatic Ecosystems Research Work Unit (RWU-4351) in Grand Rapids, Minnesota. The Project Leader will lead a multidisciplinary team to address research related to classification of riparian and aquatic systems; understanding their structure, function, and ecological processes; and managing these ecosystems in a diversity of landscape conditions and societal values. This is a GS-13/14 position (\$61,749 to \$94,862) with health, retirement plan, a 401(k)-type, and vacation benefits. As a member of the NC Research Station's team, you will have the opportunity to formulate and conduct research within broad, multidisciplinary, and integrated research problems. Skills and experience desired include a Ph.D. and research experience in one of the fields listed above, knowledge and understanding of riparian and aquatic ecosystems, leadership, ability to work independently and as a team, and a record of publishing and presentation of research. To express interest: For application information or recruitment notice, contact: **Peggy Castillo**; Telephone: 651-649-5026; e-mail: pcastillo@fs.fed.us. To learn more about the research, contact: **Tom Schmidt**; Telephone: 651-649-5131; e-mail: tschmidt@fs.fed.us. Respond by May 15, 2001, to receive recruitment notice. Announcement will be available at website: <http://www.usajobs.opm.gov>. The USDA Forest Service is an Equal Opportunity Provider and Employer. Candidates must be U.S. citizens.

POSITIONS OPEN



Three-year **POSTDOCTORAL POSITION** available in the Laboratory of Immunochimistry at Sloan-Kettering Institute. Recent discoveries on the mechanism of redox regulation of kinases offer unique opportunities for challenging studies in a new field of signal transduction. Our SKI website: (www.ski.edu/lab_homepage.cfm?lab=156) provides full details. The successful candidate will have expertise in biochemistry, protein chemistry, and/or structural biology. Send curriculum vitae and reference letters to: **Ulrich Hammerling, Ph.D., Memorial Sloan-Kettering Cancer Center, 1275 York Avenue, New York, NY 10021. E-mail: u-hammerling@ski.mskcc.org.**

POSTDOCTORAL POSITION

Division of Viral Products

Office of Vaccines Research and Review Center for Biologics Evaluation and Research Food and Drug Administration

The Laboratory of Pediatric and Respiratory Viral Diseases, located on the NIH campus, is searching for a candidate to fill a Postdoctoral Fellowship position. The laboratory is actively engaged in research on the influenza viruses and influenza virus vaccines. Candidates should have a Ph.D., M.D., or M.D./Ph.D. degree and research experience in virology, molecular virology, or cell biology. The Fellow will conduct novel research using influenza viruses and influenza virus vaccines. In addition, the candidate will perform regulatory review (e.g., product chemistry, manufacturing and control, validation, and review clinical protocols) of licensed and experimental influenza virus vaccines. The initial appointment is for two years and may be extended up to seven years as a tenure-track position based on candidate's satisfactory performance and mutual agreement. Salary is commensurate with experience and training. Applications should be sent to: **Roland A. Levandowski, M.D., 1401 Rockville, HFM-463, Rockville, MD 20852-1448. E-mail: levandowski@cber.fda.gov.** Candidates must be U.S. citizens or resident aliens eligible for citizenship within four years.

Several **POSTDOCTORAL RESEARCH ASSOCIATE** positions are available immediately to study the role of the transcription factors TEL, AML1, and EVI1 in human leukemia. Several lines of research are open. (1) *In vitro* and animal models will be used to evaluate the transcription factors' role in normal and malignant hematopoiesis. (2) Structure/function analysis of the two proteins will be carried out including cellular localization and posttranslational modifications, identification of interacting proteins, and target genes in the leukemic cells. (3) The effect of drugs/small molecule on the progress of leukemia will be evaluated using transgenic murine embryonic stem cells and murine bone marrow cells. All projects require knowledge of molecular cloning techniques including DNA and protein analysis and manipulation. Please send curriculum vitae and names/addresses of three references to: **Giuseppina Nucifora, Ph.D., Associate Professor of Pathology, Pathology Research Laboratory (MC 737), University of Illinois at Chicago, 900 South Ashland Avenue, Chicago, IL 60607-7171.**

POSTDOCTORAL RESEARCH: study of interaction of light with single cells for potential biomedical applications. Facilities include visualized single-neuron electrophysiology, imaging, and stimulation systems: Ti-Sapphire, Nd-YAG, and Argon Ion lasers. Ph.D. or M.D.; experienced in neurophysiology and/or biophotonics. Send curriculum vitae, research interests, and references to: **E. Wong; e-mail: ekwong@uci.edu; FAX: 949-824-4015** before May 31, 2001. University of California is an Equal Opportunity Employer committed to excellence through diversity.

POSITIONS OPEN

POSTDOCTORAL FELLOWSHIP MAMMALIAN DEVELOPMENT

A Postdoctoral position is available in Mammalian Development Section of the Cancer and Developmental Biology Laboratory under the leadership of **Dr. Mark Lewandoski**. The laboratory focuses on early development of the mammalian embryo with emphasis on FGF signaling. We are using the latest genetic and transgenic techniques to create multiple alleles and tissue-specific knockouts of downstream targets of the FGF signaling pathway. We are also developing further advancements for systems such as *Cre/loxP* to manipulate the mouse genome *in vivo*. Applicants should have experience in molecular biology, and those with experience in mouse embryology will be given preference.

The laboratory offers a unique and exciting environment for postdoctoral research; it is a recently renovated, state-of-the-art facility located in a highly interactive, collaborative institute and has access to an extensive set of shared resources. This is an excellent opportunity to receive training in a premier center of mouse molecular genetics.

The position is part of the Center for Cancer Research, National Cancer Institute, and is located in Frederick, Maryland. Salary range for this position is \$31,500 to \$38,020.

If interested, please send or e-mail a cover letter and your curriculum vitae to: **Dr. Mark Lewandoski, Cancer and Developmental Biology Laboratory, NCI-Frederick, P.O. Box B, Building 539, Room 121, Frederick, MD 21702. E-mail: mlewandoski@mail.ncicrf.gov.**

HEAD SCIENTIST, Smithsonian Marine Station at Fort Pierce, Florida, National Museum of Natural History, Smithsonian Institution. The successful applicant serves as administrative head of a laboratory located on the Indian River Lagoon in central eastern Florida with responsibilities for maintaining an active individual research program, overseeing a resident staff of five, supporting a large Visiting Scientist program, and directing a public education facility. Appropriate research areas include community or ecosystem ecology, population biology/genetics employing molecular approaches to investigating biodiversity, phylogeography and systematics, and experimental life-history studies. Applicants must submit curriculum vitae, a statement of interest and qualifications that specifically addresses the selective and quality ranking factors (see the Vacancy Announcement posted at website: <http://www.sms.si.edu>), and reprints of three recent research publications to: **Smithsonian Institution, Office of Human Resources, P.O. Box 50638, Washington, DC 20091** by May 18, 2001. They must request five persons familiar with their skills and experience to submit letters of evaluation to: **Ross Simons, Associate Director for Research and Collections, National Museum of Natural History, Smithsonian Institution, 10th and Constitution Avenues, Washington, DC 20560-0106.** The Smithsonian Institution is an Equal Opportunity Employer.

POSTDOCTORAL POSITIONS PROTEOGLYCAN RESEARCH AND CANCER

Two Postdoctoral positions are available to investigate the biology of perlecan and decorin, two proteoglycans involved in tumor angiogenesis and suppression respectively. The candidates are sought to join a multidisciplinary team of researchers involved in investigating the molecular mechanism by which these proteoglycans affect cell growth and tumor development. Requirements include a Ph.D. or an M.D./Ph.D. in biochemistry or cell biology. A molecular biology background is highly desirable. Send résumé and three letters of reference to: **Dr. Renato V. Iozzo, Department of Pathology, Anatomy, and Cell Biology, Thomas Jefferson University, Jefferson Medical College, 1020 Locust Street, Room 249 JAH, Philadelphia, PA 19107-6799 U.S.A. FAX: 215-923-7969; e-mail: iozzo@lac.jci.tju.edu.** Thomas Jefferson University is an Equal Opportunity Employer.



Editor, *Nature Materials*

The Nature Publishing Group is looking for an outstanding materials researcher, preferably with strong editorial experience, to be the editor of a new journal, *Nature Materials*. Following the launch of a highly successful series of prestigious *Nature* titles, and building on the stature of *Nature* in this discipline, *Nature Materials* aims to publish top-quality papers from across the field of materials research, as well as outstanding reviews and commentaries on the state of materials research.

To meet these challenging tasks, the ideal candidate will have intellectual vision and strong leadership qualities. He or she will have a PhD in a relevant field, exceptional scientific judgement and a broad-based knowledge and understanding of their research community. This is the ideal opportunity for a candidate who is innovative, bold, creative and thoughtful, with imaginative ideas for the future development of their journal and their contribution to it. A key aspect of the job is liaising with the materials science community and attending international conferences, so the successful candidate must be dynamic and outgoing with outstanding interpersonal skills. Excellent editing skills are required and editorial experience would be a distinct advantage.

The journal will be based in our modern offices in London, and the editor and his/her team will be expected to travel widely to engage with the international research community. The salary and conditions will be highly competitive, reflecting the critical importance and responsibilities of the role.

Applications should include a CV and a statement of up to 1000 words indicating their ambition for the journal. Applications should be sent as soon as possible and no later than May 11th. Additional information about *Nature* and the physical sciences is available on our Physics Portal, <http://www.nature.com/physics>.

Applicants should e-mail or write in confidence to: David Swinbanks, Publishing Director, Nature Publishing Group, 4 Crinan Street, London N1 9XW e-mail: materials@nature.com

MEETINGS

Graduate Research Assistantships

Southern University, one of the nation's leading historically black institutions, is pleased to announce highly competitive graduate research assistantships through its newly established Environmental Toxicology Program. This new program offers the Ph.D. degree in two disciplines: (1) Molecular and Environmental Toxicology and (2) Human Health and Environmental Toxicology. Research opportunities are available in the following areas: biosensors (Dr. Ahmad Suleiman), photodynamic therapy (Dr. John Owens), molecular effects of herbicides on aquatic mollusks (Dr. Fred Christian), molecular effects of butadiene exposure (Dr. Perpetua Muganda), xenoestrogen receptors (Dr. Wesley Gray), metal peptide synthesis (Dr. Maria Ngu), oxidative stress, xenobiotic metabolism, and comparative toxicology of aquatic and marine organisms (Dr. Gary Winston). Those seeking applications should contact Dr. John W. Owens, Chairperson, Committee for Admissions and Recruitment, Environmental Toxicology Program, P.O. Box 9264, Southern University, Baton Rouge, Louisiana 70813. E-Mail: jowens8960@aol.com. The deadline for receiving completed applications is June 1, 2001.

Southern University is an institution for all people and is an equal opportunity employer.

FELLOWSHIPS



SANTA FE INSTITUTE International Research Fellowship Opportunities

The Santa Fe Institute (SFI) will award several two-year fellowships to outstanding scholars from academic institutions in **Africa, China, Eastern Europe, Former Soviet Union, India, and Latin America**. Participants will be selected based on interest in interdisciplinary research in the physical, biological, computational, or social sciences as they relate to complex adaptive systems. Short-term visits to SFI are included in the Fellowship.

Additional information:
www.santafe.edu/sfi/education/international/intfellow/intfaldescription.html

Application information: Cover letter including statement of purpose, current curriculum vitae (CV), two letters of recommendation from scientists who know your work, and completion of our on-line English-language self-evaluation form. Include your email address and fax number.

International Fellowship Program
Santa Fe Institute
1399 Hyde Park Road, MS#1
Santa Fe, New Mexico 87501
USA

(505) 984-8800 ext. 235 (voice)
(505) 982-0565 (fax)
email: cate@santafe.edu

Application deadline: June 30, 2001

MEETINGS



66th Cold Spring Harbor Symposium on Quantitative Biology

The Ribosome

May 31 - June 5, 2001

Organized by

Bruce Stillman & David Stewart,
Cold Spring Harbor Laboratory

Topics

- Ribosome structure and function
- Ribosome assembly and transport
- Translational control
- Initiation, elongation & termination
- Ribosome kinetics and dynamics

Invited Speakers

John Atkins	Knud Nierhaus
Roland Beckmann	Harry Noller
Alexey Bogdanov	Masayasu Nomura
Ian Brierley	Jens Nyborg
Richard Brimacombe	James Ofengand
Stephen Burley	Stuart Peltz
Albert Dahlberg	Uttam Rajbhandary
Thomas Dever	Venki Ramakrishnan
Jennifer Doudna	Joel Richter
Philip Farabaugh	David Ron
Joachim Frank	Alan Sachs
Adam Geballe	Peter Samow
Susan Gerbi	Paul Schimmel
Raymond Gesteland	Robert Schneider
Rachel Green	Stewart Shuman
Claudio Gualerzi	Dieter Soll
Christopher Hellen	Nahum Sonenberg
Matthias Hentze	Alexander Spirin
Alan Hinnebusch	Thomas Steitz
Thomas Hohn	Scott Strobel
Richard Jackson	Olke Uhlenbeck
Arlen Johnson	Marin van Heel
Arthur Johnson	Gerhart Wagner
Akira Kaji	Jonathan Warner
Terri Kinzy	Marvin Wickens
Lynne Maquat	Jamie Williamson
Michael Mathews	Wolfgang Wintermeyer
Oded Meyuhdas	Michael Yarus
Peter Moore	Shigeyuki Yokoyama
Yoshikazu Nakamura	Ada Yonath

Other CSHL 2001 Meetings

- Learning & Memory
- Proteolysis & Biological Control
- Tyrosine Phosphorylation & Cell Signaling
- Retroviruses
- Yeast Cell Biology
- Eukaryotic mRNA Processing
- Mechanisms of Eukaryotic Transcription
- Eukaryotic DNA Replication
- Microbial Pathogenesis & Host Response
- Programmed Cell Death
- Integrating Genome Sequence, Sequence Variation & Gene Expression
- Neurobiology of *Drosophila*
- Molecular Approaches to Vaccine Design
- Physiological Genomics & Rat Models

Cold Spring Harbor Laboratory

Meetings & Courses Programs
1 Bungtown Road, Cold Spring Harbor, NY 11724
phone: (516) 367-8348 fax: (516) 367-8845
email: meetings@csih.org
www.cshl.org/meetings

*It's what we do.
It's who we are.*

**Biophysicists, Biophysical Chemist and
Biochemist Positions Available in West Point, PA**

Merck Research Laboratories presently has openings for Senior Research Biophysicists, Biophysical Chemists and Biochemists at our **West Point, PA** facility (25 miles NW of Philadelphia).

Biophysics candidates are expected to have an interdisciplinary background at the interface of biology and physics, including a Ph.D. in biology, biophysics, or physics with significant experience in a complementary area, as well as at least 2 years' post-doctoral experience. Candidates are expected to think creatively in applying physical reasoning and approaches to a diverse set of biological problems. Previous assay development, rigorous data analysis, and computer programming skills preferred.

Biophysical chemistry and biochemistry candidates should have a Ph.D. in biochemistry, chemistry or physics and experience in the area of thermodynamics and kinetics of macromolecular interactions, biochemical assay development and/or protein purification and characterization. Candidates are expected to think creatively in the characterization and analysis of biochemical systems relevant to drug discovery and vaccine development.

Excellent salary and benefits programs accompany these positions in our modern research facility. To be considered, please submit your resume and cover letter, indicating salary requirements to: **Merck Research Laboratories, Ad #AJS, WP16-225, West Point, PA 19486.** We are an Equal Opportunity Employer. M/F/D/V. Principals Only.



MERCK

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**TWO POSTDOCTORAL FELLOWS
Mayo Clinic
Rochester, MN**

Mayo Clinic Rochester has established a Molecular Medicine Program with several groups working on gene therapy using different viral systems. In the group of Dr. Stephen Russell motivated individuals are required to continue developing targetable, injectable retroviral, lentiviral and measles virus vectors for the treatment of neoplastic diseases. The primary disease focus of the laboratory is multiple myeloma. Appropriate model systems will be used to study the in vivo effects of the new vectors.

Experience in molecular biology is required, training in virology is desirable. Salary will be determined by the successful candidate's experience. There is also an attractive benefit package. Mayo Foundation is a non-profit physician led clinical practice integrated with education and research in a unified multi-campus system. For further information please visit <http://www.mayo.edu/research/mmp>. Please send curriculum vitae and bibliography to:

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**The International
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Request for proposals

Spinal Research is a grant giving charity (number 281325) based in the U.K. with the sole purpose of funding research aimed at resolving the partial or nonfunctioning of the injured spinal cord.

Continuing our successful strategic approach towards research funding, we now invite applications for project grants that relate specifically to one or both of the following 'vertical' themes identified in our updated Research Strategy (Ramer et al. *Spinal Cord* (2000) 38:449-472; copies available):

- Guiding extended axonal regrowth and promotion of appropriate functional connections
- Optimising the function of surviving axonal fibres

Preference will be given to applications that involve studies in the *adult mammalian* spinal cord, or that provide explicit justification for the use of other systems and how the results could be verified and translated. Planned lesioning and assessment methodologies must also be appropriate.

Applicants should submit five copies of a letter of intent (c. two pages) summarising the proposed research and background of the laboratory, plus five copies of an approximate budget and brief curriculum vitae of the Principal Investigator(s) by **18th May 2001**. Faxed or electronic letters will not be accepted.

Awards are based on the level of a post-doctoral salary plus laboratory consumables over three years. Following a preliminary review, detailed proposals will be invited from a limited number of applicants.

Address letters of intent to:
ISRT, 8a Bramley Business Centre,
Station Road, Bramley,
Guildford,
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Tel: +44 (0)1483 898786 Fax: +44 (0)1483 898763
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Applications are invited for **POSTDOCTORAL POSITIONS** in the broad area of computational biology at the University of Washington.

Candidates interested in working on computational aspects of the following topics are encouraged to apply: protein structure prediction (comparative modeling, fold recognition, *ab initio* prediction, and algorithmic studies of the nature of large [conformational] spaces); protein function prediction (from sequence and structure); genomics/proteomics (predicting structure and function of whole genomes); bioinformatics/data mining; predicting membrane protein structure; protein design; docking; evolution; and understanding higher-level organization of protein pathways in the cell and simulating their behavior.

The positions will be in the **Samudrala Computational Biology Research Group** located in the Rosen Building at the University of Washington. The building offers a diverse multidisciplinary intellectual environment, high-performance computing facilities, and great views.

Interested candidates are encouraged to submit a summary of research interests, curriculum vitae, and names and contact information of three references to:

Ram Samudrala
Department of Microbiology
University of Washington
Seattle, WA 98195-7242
Telephone: 206-732-6122
FAX: 206-732-6055

E-mail: ram@compbio.washington.edu
Website: <http://compbio.washington.edu>

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POSTDOCTORAL RESEARCH ASSOCIATE WHEAT MOLECULAR BIOLOGY

The University of Idaho is seeking applicants for a Plant Molecular Biologist to conduct research in the area of genetic engineering of biosynthetic pathways in small grain cereal crops. The selected candidate will be part of a multidisciplinary team working in this broad area in collaboration with the Idaho National Engineering and Environmental Laboratory. Significant experience in the areas of gene identification, cloning and sequencing, monocot transformation systems, and plasmid vector construction is desired. Experience working with plant tissue culture and the proven ability to work as part of a multidisciplinary team are strongly preferred. Expertise in plant carbohydrate biochemistry would be a plus. Applicants must have a Ph.D. in plant molecular biology or a related field with preference given to individuals with experience in wheat or small grain molecular genetics/biology. Position is a 12-month appointment, potentially renewable annually for three years. Salary is \$30,000 to \$32,000 per annum. For more information, contact by e-mail either: rzemetra@uidaho.edu or pberger@uidaho.edu. Letters of application, together with curriculum vitae and the names and addresses of at least three references, should be sent to: **Michelle Hiseley, Department of Plant, Soil, and Entomological Sciences, University of Idaho, Moscow, ID 83844-2339.** E-mail: mhiseley@uidaho.edu. The position is available immediately, and applications will be received until a suitable candidate is identified. *The University of Idaho is an Equal Opportunity Employer.*

SIGNAL TRANSDUCTION

POSTDOCTORAL POSITION to study the role of paxillin and associated proteins in integrin-mediated cell adhesion, growth factor signaling, and cytoskeletal organization (see *Nat. Cell Biol.* 2:E231, 2000). Experience in cell and molecular biology techniques essential. A background in cell adhesion/signaling desirable. Send curriculum vitae and names of references to: **Dr. Chris Turner, Department of Cell and Developmental Biology, SUNY Upstate Medical University, 750 East Adams Street, Syracuse, NY 13210.** An Affirmative Action/Equal Employment Opportunity/Americans With Disabilities Act Employer.

POSITIONS OPEN

RESEARCH POSITIONS AVAILABLE Oak Ridge National Laboratory

POSTDOCTORAL RESEARCH ASSOCIATES positions: functional genomics. A Postdoctoral position is available in the Environmental Sciences Division (website: <http://www.esd.ornl.gov>) at the Oak Ridge National Laboratory (ORNL) (website: <http://www.ornl.gov>) for an individual with training in molecular biology, biochemistry, and microbiology. The successful applicant will participate in functional genomics of *Shewanella oneidensis* MR-1 and extremophilic microorganisms.

Candidates must have a Ph.D. degree with demonstrated experience in techniques such as gene cloning, gene expression, vector development, RNA isolation and analysis, and functional genomics. Additional experience is desired in bioinformatics and microarray technology. The individual will work cooperatively with Scientists at ORNL, Michigan State University, Stanford University, California Technology Institute, and/or Argonne National Laboratory.

Interested candidates should send curriculum vitae, a description of research accomplishments and interests, and the names and telephone numbers of three references to: **Dr. Jizhong Zhou, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6038.** Telephone: 865-576-7544; FAX: 865-576-8646; e-mail: zhouj@ornl.gov; website: <http://www.esd.ornl.gov/people/zhzhou/zhzhou.html>.

Applications will be accepted until July 1, 2001, or until the position is filled. This appointment will be offered through the ORNL Postdoctoral Research Associates Program (website: <http://www.ornl.gov/orise/edu/postgrad/ornldoc.htm>). The salary will be very competitive.

RESEARCH TECHNICIAN: molecular biology. A Research Technician position is available in the Environmental Sciences Division of Oak Ridge National Laboratory for an individual interested in participating in the functional genomics/molecular biology of *Shewanella oneidensis* MR-1 using microarray technology. Candidates should have an M.S. degree in molecular biology or molecular microbiology with demonstrated experience in gene cloning, PCR amplification, mutagenesis, vector development, and RNA isolation and analysis. Experience in bioinformatics is desired but not necessary. Applications will be accepted until July 1, 2001, or until the position is filled.

Send curriculum vitae, a description of research accomplishments and interests, and the names and telephone numbers of three references to: **Dr. Jizhong Zhou, Oak Ridge National Laboratory, P.O. Box 2008, Oak Ridge, TN 37831-6038.** Telephone: 865-576-7544; FAX: 865-576-8646; e-mail: zhouj@ornl.gov; website: <http://www.esd.ornl.gov/people/zhzhou/zhzhou.html>. The program is open to all qualified U.S. and non-U.S. citizens without regard to race, color, age, religion, sex, national origin, physical or mental disability, or status as a Vietnam-era veteran or disabled veteran.

POSTDOCTORAL POSITIONS are available to study the mechanisms of transcriptional regulation and neuronal differentiation by Rb-associated complex. Candidates must hold Ph.D. degree and have experience with studies of signal transduction and molecular biology techniques. Send letter of interest, curriculum vitae, and three letters of recommendation to: **Dr. Robert Chiu, UCLA School of Dentistry/School of Medicine, 73-016CHS, Los Angeles, CA 90095-1668.** FAX: 310-825-0921. UCLA is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

POSTDOCTORAL TRAINING FUNCTIONAL GENOMICS OF PLANT-INSECT INTERACTIONS

The NSF-supported research training program in plant-insect interactions at the University of Arizona invites applications from prospective Postdoctoral Fellows. We are particularly interested in identifying candidates to employ emerging methods in functional genomics to analyze the interactions of lepidopteran and homopteran herbivores with host plants. Comprehensive high-throughput equipment is available for this work including instruments for microarray production and bioinformatics analysis, real-time PCR, robotic colony picking, and plasmid preparation and PCR cleanup. Imaging equipment includes confocal and two-photon microscopes. Individual projects include but are not limited to studies of the interactions of generalist and specialist insect pests with plants, analysis of insect digestion and olfaction, and characterization of the transmission of phytopathogenic agents. Salary range: \$25,500 to \$36,000 based on years of postdoctoral experience. Further information can be obtained from our website: <http://ag.arizona.edu/pii-rtg> or from Human Resources website: <http://www.hr.arizona.edu>. To apply, send a statement of research accomplishments and aspirations, a résumé, and the names and contact information for three references to: **Plant-Insect Interactions Interdisciplinary Program, Attention: Dr. David Galbraith, 303 Forbes Building, The University of Arizona, Tucson, AZ 85721.** Please reference Job Number 21365. Review of applications will begin April 30, 2001, and will continue through December 21, 2001.

The University of Arizona is an Equal Employment Opportunity/Affirmative Action Employer; Minorities/Women/Disabled/Veterans. Please note: Applicants must be citizens or permanent residents of the United States.

POSTDOCTORAL POSITIONS Carbon Nanotechnology

Postdoctoral research positions are available at Rice University with **Professor Richard Smalley**. This will involve extensive interactions with collaborators at Rice University; the University of California, Los Angeles; the University of Pennsylvania; Georgia Tech; and the National Aeronautics and Space Administration. The selected Scientists will be expected to assist in the planning and supervision of research activities. These activities focus on developing effective technologies with fullerene nanotubes, specifically including the development and theoretical modeling of macroscopic, oriented nanotube fibers and films; new composite materials; separations techniques; and a variety of electronic systems and devices with nanometer dimensions. We seek applications from ambitious, dedicated, self-motivated, hard-working Scientists and Engineers with a strong desire to participate in the development of nanoscale science and technology in university settings with strong ties to commercial and government sectors.

Applicants should have backgrounds in one or more of the following areas: chemistry, theoretical condensed matter and polymer physics, physics, applied physics, electrical engineering, and materials science. The selected individuals will be expected to lead frontier efforts in the emerging nanotechnologies and thus should possess exceptional technical and communication skills. A detailed letter of interest, curriculum vitae, and three references should be sent to: **Professor R. E. Smalley, CNST, MS-100, Rice University, P.O. Box 1892, Houston, TX 77251-1892.** Rice University is an Equal Opportunity/Affirmative Action Employer.

A **POSTDOCTORAL POSITION** available immediately to study cellular and molecular basis of vascular smooth muscle contraction and proliferation regulation. Individuals with a Ph.D. and experience in signal transduction, molecular biology, and biochemistry are particularly encouraged to apply. Send letter of application, curriculum vitae with bibliography, and the names of three references to: **Ming C. Gong, Ph.D., Department of Physiology, University of Kentucky Medical Center, Lexington, KY 40514.** E-mail: mcong2@pop.uky.edu.

POSITIONS OPEN

POSTDOCTORAL POSITIONS

Postdoctoral positions are available for individuals interested in cancer biology. Specific areas of interests include (1) deregulation of cellular pathways in transformation and cancer, focusing on how viral oncogenes perturb cellular regulatory circuitry; and (2) linkage between epithelial cell adhesion, cytoarchitecture, and gene expression; consequences for tumor suppression. Candidates with Ph.D. and/or M.D. and strong background in molecular/cellular biology and biochemistry are invited to send curriculum vitae and names of references to: **Dr. Daqing Liao** (e-mail: dliao@anatomy.med.ufl.edu) or **Dr. Stephen P. Sugrue** (e-mail: sugrue@anatomy.med.ufl.edu), University of Florida College of Medicine, Department of Anatomy and Cell Biology, Gainesville, FL 32610-0235. FAX: 352-392-3305. Further information regarding our research can be found at websites: http://www.med.ufl.edu/anatomy/mcb/profdetail.cgi?name=liao_d or http://www.med.ufl.edu/anatomy/mcb/profdetail.cgi?name=sugrue_s.

A POSTDOCTORAL POSITION is available immediately to investigate the cell cycle function of the budding yeast and human Cdc14 protein phosphatases. The Cdc14 phosphatase is a component of a signaling pathway that triggers the termination of mitosis. This NIH-funded position will focus on identification of substrates and characterization of the regulatory mechanisms for the human and yeast enzymes. Applicants should have a background in biochemistry and/or molecular biology and an aptitude for original and independent research. Experience with the yeast system is desirable but not necessary. Send or e-mail curriculum vitae and names of three references to:

Dr. Harry Charbonneau
Purdue University
Department of Biochemistry
West Lafayette, IN 47907
E-mail: charb@purdue.edu
FAX: 765-494-7897

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The Program in Molecular Cardiology at the University of North Carolina at Chapel Hill has positions open for POSTDOCTORAL FELLOWS to pursue innovative research in the regulation of stress-responsive events regulating protein degradation via the molecular chaperone and ubiquitin-proteasome pathways (*Molecular and Cellular Biology* 19:4535-4545; *Nature Cell Biology* 3:93-96). Applicants should have experience in basic molecular and cell biology techniques and an interest in advanced molecular techniques and transgenic models. Send curriculum vitae, a statement of research interests, and names of three references to: **Cam Patterson, M.D.**, Department of Medicine, 324 Burnett-Womack, CB Number 7075, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7075. E-mail: cpatters@med.unc.edu. University of North Carolina at Chapel Hill is an Equal Opportunity/Americans With Disabilities Act Employer.

POSTDOCTORAL POSITION in molecular and cognitive neuroscience. The Pennsylvania State University, University Park, Pennsylvania. Position available immediately to study the brain substrate of anxiety. We use molecular genetic and behavioral analysis of transgenic mice to generate novel cognitive maps (see **Crestani et al.**, *Nat. Neurosci.* 2:833-839, 1999). Strong background in behavioral genetics and/or molecular biology required. Send résumé and names and e-mail addresses of three references to: **Dr. Bernhard Lüscher**, 210 Mueller Laboratory, Department of Biology and BMB, The Pennsylvania State University, University Park, PA 16802. E-mail: BXL25@psu.edu; website: www.bio.psu.edu/People/Faculty/Luscher/. Applications accepted until position filled. Affirmative Action/Equal Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL SCHOLAR

The Division of Hematology/Oncology at University of California San Francisco is home to over 20 faculty members who conduct research in both clinical and laboratory settings as well as providing graduate-level education to students.

Postdoctoral positions are available to study mechanisms of gene delivery and expression in hematopoietic cells in culture as well as following *in vivo* gene delivery into fetal and adult rodents. Additionally, there will be potential applications to gene therapy, developmental gene regulation in transgenic models, and gene delivery vector design. Applicant should have a Ph.D. and a strong background in molecular biology and/or in hematopoiesis/murine models. Position is available as soon as possible and requires a 40-hour workweek Monday through Friday. Salary is more than \$30,000 per year. Send résumé and three letters of reference to:

Karin Gaensler, M.D.
Professor of Medicine
UCSF Division of Hematology/Oncology
FAX: 415-566-4969
E-mail: nintim@itsa.ucsf.edu

POSTDOCTORAL/RESEARCH. NIH-funded Postdoctoral Fellowships are available this summer to study the role of connective tissue growth factor (CTGF) in hepatic fibrosis. The studies will focus on the role of CTGF in hepatic stellate cell function and on hepatic delivery of CTGF genes using viral vectors. A strong background and proven publication record in molecular biology and cell biology is required. Applications from individuals with a background or special interest in fibrosis or wound healing would be particularly welcome. An opportunity will be available to interact with other Investigators in the areas of CTGF and liver disease. Interested individuals should e-mail or FAX their curriculum vitae and names of three references to: **David R. Brigstock, Ph.D.**, Children's Research Institute, 700 Children's Drive, Columbus, OH 43205. E-mail: Brigstock@pediatrics.ohio-state.edu; FAX: 614-722-2716; Telephone: 614-722-2840.

POSTDOCTORAL POSITION available at Yale University School of Medicine starting May 15, 2001, to join a laboratory studying the molecular mechanisms regulating ion transport in the kidney. This project will study recently described interactions between the Na⁺/H⁺ exchanger (NHE3) and other brush border proteins in the proximal tubule (see *J. Biol. Chem.* 276:10161, 2001). Potential candidates should have a Ph.D. with experience in molecular biological techniques and with background in cell biology and/or protein chemistry preferred. Please send curriculum vitae and three references to: **Dr. Daniel Biemesderfer**, Yale University School of Medicine, 333 Cedar Street, LMP 2082, New Haven, CT 06520. E-mail: daniel.biemesderfer@yale.edu. An Equal Opportunity/Affirmative Action Employer.

Yale University School of Medicine Vascular Biology and Transplant Program invites applications for a POSTDOCTORAL ASSOCIATE position. The position, available immediately, will focus on the mechanisms whereby T cell integrins provide costimulation and activation gene expression. Candidates with a strong background in molecular immunology are encouraged to apply. Please send curriculum vitae and three references to: **Dr. Jeffrey R. Bender**, Boyer Center for Molecular Medicine 454, Yale University School of Medicine, Box 9812, 295 Congress Avenue, New Haven, CT 06536-0812. E-mail: jeffrey.bender@yale.edu.

POSTDOCTORAL POSITION is available immediately in an NIH-funded project to study G protein-coupled receptor signaling. Experience in molecular biology is essential. Send curriculum vitae to: **Hydar Ali, Ph.D.**, Departments of Pathology/Immunology, University of Pennsylvania, 4010 Locust Street, Philadelphia, PA 19104. E-mail: ali@path.dental.upenn.edu. University of Pennsylvania is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

NIH-funded POSTDOCTORAL POSITION to study structure and function relationships in a group of amine oxidases that contain covalently bound flavin and belong to a recently recognized superfamily of prokaryotic and eukaryotic enzymes (see website: http://www.mcphu.edu/medschool/depts/biochem/mj_res.htm). Candidates should have a Ph.D. and strong background in biochemistry and molecular biology. Send curriculum vitae, summary of research experience, and the names and telephone numbers of three references to: **Dr. Marilyn Jorns, MCP Hahnemann School of Medicine, Department of Biochemistry, 2900 Queen Lane, Philadelphia, PA 19129.** E-mail: marilyn.jorns@drexel.edu.

POSTDOCTORAL POSITION is available to study the molecular mechanisms underlying development of the peripheral nervous system and heart utilizing molecular and genetic approaches. Experience in molecular biology is essential; embryo manipulation and/or ES/transgenic experience preferred. Send curriculum vitae and names of three references to: **Peter Cserjesi, Ph.D.**, Department of Cell Biology, Louisiana State University Health Sciences Center, 1901 Perdido Street, New Orleans, LA 70112. E-mail: pcserj@lsuhsc.edu. LSUHSC is an Equal Employment Opportunity/Affirmative Action Employer.

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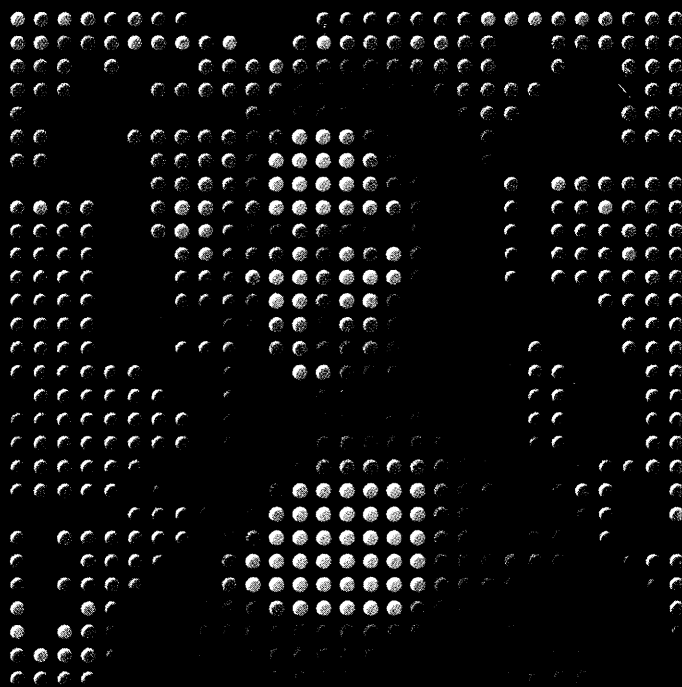
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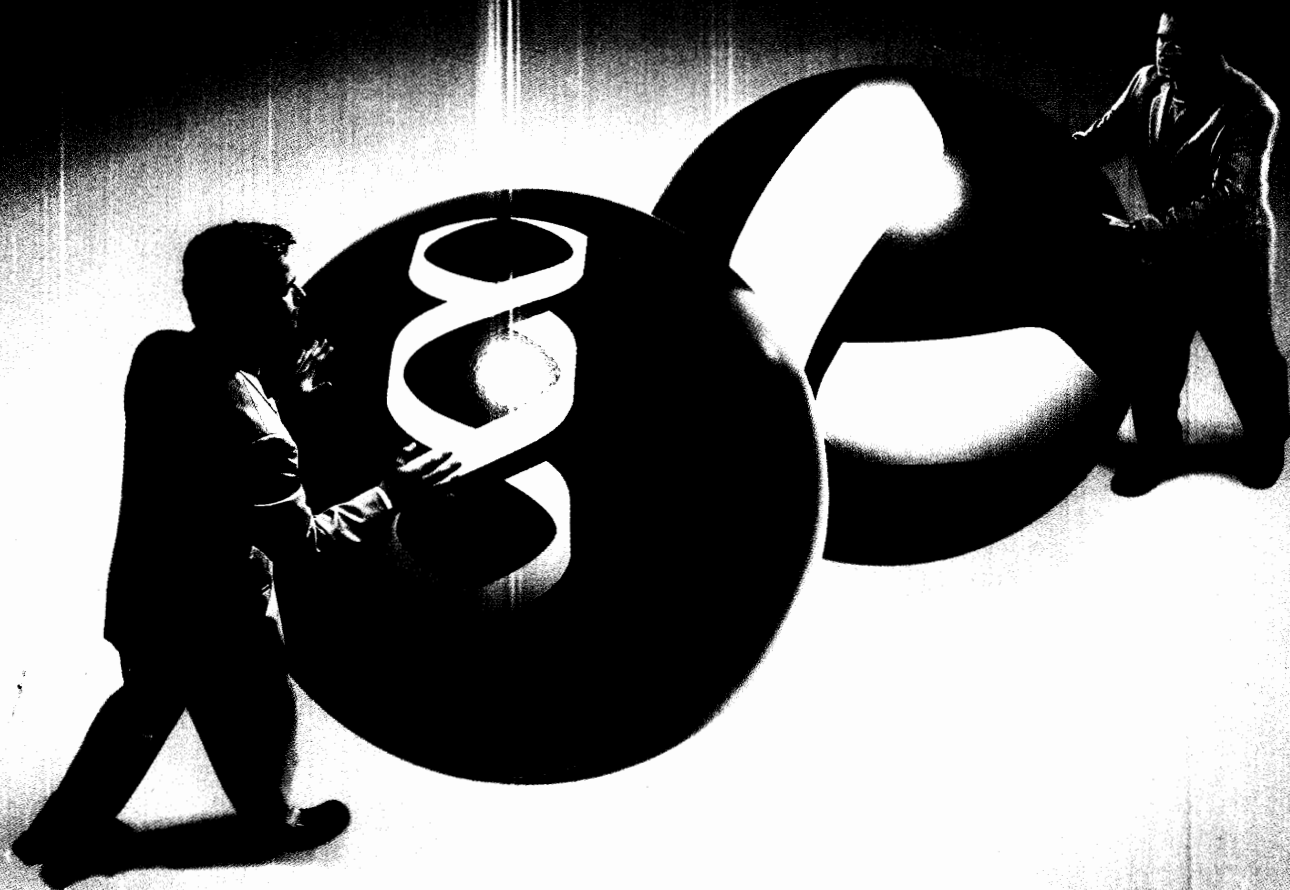
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