serous and endometrioid adenocarcinoma, Krukenberg's tumor, and uterine myoma. Normal ovarian epithelial cells are negative, and the antibody does not react with human AFP, CEA, PAP, PSA, CA-15-3 or CA-19-9. The PS1 mAb reacts with the epsilon chain of the CD3 complex, a complex associated with T cell receptors consisting of disulfide-linked glycoprotein chains on T lymphocyte surfaces. The mAb E11 reacts with CR1 (CD35), the receptor for the complement component C3b that is widely distributed on many different cells including erythrocytes, B cells, monocytes, and granulocytes. The mAb MEM55 can be used to stain CD45RB antigen on most T cells, B cells, monocytes, and macrophages. CD45RB is one of three isoforms of the CD45R subfamily. CD45 is a cell surface receptor considered to be involved in signal transduction. The mAb 9E10 reacts with an epitope of c-myc protein that may be detected in many different cancers. BioGenex. Circle 143.

■ Color Camera
The DC-330 is a three-chip color camera with a small remote head and a C-mount. It features 10-bit digital processing and resolution up to 750 TV lines. On-chip integration provides increased sensitivity in low-light conditions. Picture detail is enhanced through adjustable horizontal and vertical edge enhancement. On-screen programming of more than 40 internal camera functions simplifies adjustment for precise viewing requirements. Combinations of internal camera settings can be saved in three user-defined memories. All internal camera functions can be controlled through an RS-232 interface. Dage-MTI. Circle 144.

■ Gold Labeling Reagents
Gold particles can now be attached covalently to other molecules at specific sites. Two forms of gold are available: Monomaleimido-Nanogold reacts with thiols; and mono-N-hydroxysuccinimide ester-Nanogold couples to amines. Molecules that can be labeled include antibodies, other proteins, peptides, lipids, carbohydrates, RNA, and DNA. These gold conjugates can be used as probes for electron or light microscopy, cytochemistry, diagnostics, blots, or gels. Because NanoGold is small (1.4 nm), these probes' penetration is superior to that of larger colloidal gold probes. Nanoprobes. Circle 145.

■ Enhanced Chemiluminescence Substrate
SuperSignal Ultra Substrate is a chemiluminescent substrate for horseradish peroxidase in protein immunoblotting that detects protein bands down to the femtogram level. It results in a signal 25 times more sensitive than that of any other enhanced chemiluminescent substrate available, according to the manufacturer. SuperSignal Ultra requires antibody dilutions of 1:100,000 and higher—conserving valuable primary antibodies. It also demonstrates excellent signal duration, with 24-hour light emission. The working solution is stable for 24 hours. Pierce. Circle 146.

■ Literature
SenSys: Sensitive, Affordable, Easy-to-Use Digital Camera describes a cooled camera system with sensitivity and resolution that approaches high-priced systems. The design features a scientific grade charge-coupled device (CCD), electronics that produce minimal noise, and compact hardware that keeps the CCD operating in a consistently cool environment. Photometrics. Circle 147.

Microprocessor-Based Portable Meters includes a line of meters to measure pH, conductivity, temperature, relative humidity, and more. The 12-page brochure features all the probes, solutions, and accessories necessary to meet almost any application requirement. Cole-Parmer Instrument. Circle 148.

Worthington Enzyme Catalog contains information about enzymes, biochemicals, and kits for life-science research. It includes detailed information on many new products, including plasmid DNA purification, mRNA isolation, and random-prime DNA labeling kits. Worthington Biochemical. Circle 149.

Shodex Packed Columns for HPLC describes a complete line of high-performance liquid chromatography (HPLC) columns, detectors, degassers, and accessories. The catalog lists more than 300 different columns for separating compounds by such attributes as size, type, and application. JM Science. Circle 150.
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Biology Department: University of Northern Colorado (UNC) seeks CHAIR and PROFESSOR to lead a strong, diverse, three-support faculty. The position is tenure-track and available July 1997. Three-year term and renewable. Submit application letter, curriculum vitae, and letters of support to: Professor Richard S. Wadsworth, Biology Department, University of Northern Colorado, Greeley, CO 80639. Fax: 303-384-1365. Telephone: 970-384-6451.

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SETTING NEW STANDARDS: CAREERS FOR SCIENTISTS WITH DISABILITIES

by John Timpane

Standards are everything in science. They are the bedrock on which testing, communications, and comparison take place; by their light, scientists sort out the promising result from the happy accident and the burst of noise. In every sector of the scientific work force, employers and workers alike are proud of upholding and representing the highest possible standards.

People, however, are not standardized. What of the capable scientist who lacks vision, hearing, or the use of a limb? Can the schools train, and industry hire, the biologist who is blind, the chemist who is deaf, the brilliant performer who nevertheless needs a different bench, a modified hood, a redesigned work place?

Below, we survey the situation of scientists with disabilities. We look at the numbers, consider the issues, and meet scientists at the New Jersey Institute of Technology (NJIT) and CIBA Pharmaceuticals. Their insights suggest that both private and industrial science welcome talent in whatever form it comes. It takes hard work to become a scientist, and even more hard work to do so with a disability. But people are doing it, finding new ways to do science and to set new standards.

**Percentage of graduate students reporting a disability by field: 1989-90**

<table>
<thead>
<tr>
<th>Field</th>
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<tr>
<td>Mathematics</td>
<td>6.8%</td>
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<tr>
<td>Life Sciences</td>
<td>7.6%</td>
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<tr>
<td>Physical Sciences</td>
<td>7.7%</td>
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<tr>
<td>Computer Sciences</td>
<td>12.4%</td>
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<tr>
<td>Psychology</td>
<td>5.1%</td>
</tr>
<tr>
<td>Engineering</td>
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**Numbers and Definitions**

It is hard to be exact about the numbers of people with disabilities in the work force—largely because of the shifting definition of the word disability. Although the 1990 Americans with Disabilities Act (ADA) worked toward establishing standard definitions, there is as yet no consensus. Not all institutions, furthermore, keep records that include information on disabilities. Reporting patterns among respondents are not always reliable, and since the incidence of disability increases with age, it is difficult to use disability as a distinctive descriptor for a single group.

U.S. Census data suggest that the relative proportion of people with disabilities in the work force declined slightly between 1980 (11.8 percent) and 1990 (10.4 percent). According to studies conducted by the National Science Foundation (NSF), a parallel decline took place in the science and engineering work force, going from 3.3 percent to 2.7 percent in the same period. Less than 300 people with disabilities receive science and engineering PhDs each year. In the 1994 report Women, Minorities, and Persons with Disabilities in Science and Engineering, NSF researchers concluded that "persons with significant sensory-motor disabilities are seriously underrepresented" in the science and engineering population.

**Obstacles and Outlooks**

Many (perhaps most) scientists with disabilities would rather the rest of us kept quiet and let them do their work. All they want is to do science. Others are hesitant to speak about their experience. But scientists with disabilities clearly face special issues in finding and keeping good science jobs. Between ten and twenty percent of the U.S. population has a disability (variously defined); this number erodes to less than three percent of all scientists and engineers.

Young scientists with disabilities often face discouragement from teachers and peers. Writing in the AAAS publication Investing in Human Potential: Science and Engineering at the Crossroads, Marsha Lakes Matyas and Virginia W.
Affymax Research Institute is an innovative venture dedicated to the development of new technologies which will accelerate the process of drug discovery. Our success in the creation and screening of large combinatorial chemical libraries has created excellent opportunities at our Santa Clara and Palo Alto, California sites. We have recently become part of GlaxoWellcome plc, the largest pharmaceutical company in the world.

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**Research Associates - Organic Chemistry**

Will participate in research teams using combinatorial chemistry methodologies for the discovery of new pharmaceutical lead compounds. Work will involve development of solid-phase syntheses of heterocyclic and other small organic molecule pharmacophores, BS/MS in organic chemistry with a strong background in modern synthetic methods and at least two+ years research laboratory experience required. Previous experience in medicinal chemistry and solid-phase synthesis desirable. Must be familiar with the latest Mac computer software such as Word, Chemdraw, Excel, etc.

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Will participate in the development and application of novel high throughput screens for the rapid evaluation of combinatorial chemical libraries. Ph.D. biochemist or pharmacologist with 3+ years postdoctoral experience in assay development and a thorough knowledge of enzyme kinetics and mechanism required. Preference will be given to candidates with experience in high throughput screening for drug discovery, including assay automation and HTS data management using robotic systems. A background in antimicrobial enzymology, protein purification and a good level of chemical literacy very helpful.

**Research Associates - Biological Sciences**

Positions require BS/MS with 3+ years research experience developing biochemical and antimicrobial assays and specific experience running both cell-based and in vitro enzyme inhibition assays. Previous experience with laboratory automation is a plus.

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Stern note that for people with disabilities, "the doors to a future career in science and engineering can be closed early in adolescence." As we heard from one scientist, "I do know of people who have been discouraged in their careers. I don't know why somebody would do that, but I do know it happens." Because people with disabilities rarely get degrees in the sciences, role models are as yet scarce. Those who persist through the degree process encounter a range of attitudinal and physical obstacles. Few of us like to ask for anything special, least of all when we need it.

And when they enter the job market, some make choices based not on what they want but on what they think they can get. One respondent says, "Many scientists with disabilities seek the path of least resistance. You might have all the ability in the world but, seeing the difficulties, you'll decide to settle for a position that is really beneath your abilities because, either consciously or unconsciously, you're afraid you won't make it, or you'll be too much trouble to others."

Still another set of challenges exists in the workplace. Science requires precise handling of tools and equipment, the ability to detect and react to the tiniest changes. Will managers and employers have the patience and pocketbooks to accommodate the scientist who may not hear, see, speak, move, or manipulate in the same way as do other scientists? Will co-workers recognize excellence despite difference? Even if the answers to those questions were universally in the affirmative, the questions themselves would remain.

Consider the issue of promotion. A scientist with a speech disorder says that promotion can be a difficult issue: "Higher management work requires frequent and rapid oral communication, which is not an insuperable barrier, but does represent difficulties at times." Although this scientist has been promoted to a mid-range managerial position, her career trajectory remains somewhat beneath what one might expect based on her distinguished record of performance. Why hasn't she risen higher? "Partly because of hesitation on my own part," she says, "and partly, I am sure, because the offers were simply not there."

Encouraging scientists with disabilities requires close linkage among parents, teachers, and government and private agencies. Many organizations, such as the Association on Higher Education and Disability (AHEAD) and the Science Association for People with Disabilities, exist to inform and help those with disabilities who seek a science career. Since 1975, the AAAS Project on Science, Technology, and Disability has promoted the entry and advancement of people with disabilities into the sciences, mathematics, and engineering. Some scientific organizations, such as the American Chemical Society, have committees and programs dedicated to scientists with disabilities.

All our interviewees agreed that the major factor determining success is the individual him- or herself. "It really depends on the individual and his or her capabilities," says Jeff Liebman of CIBA. William Skawinski of NJIT thinks that the two keys are a love of science and a willingness to do a great deal of hard work. Below, two scientists with both of these attributes discuss how they crafted satisfying careers.

**Feeling and Vision:**

**Skawinski of NJIT**

One of the high points in William Skawinski's career was when a colleague at NJIT told him about rapid prototyping, a technique that employs laser stereolithography to create three-dimensional polymer models. Skawinski, a research associate in the department of chemical engineering, chemistry, and environmental science at NJIT, did something that often leads to exciting scientific work: he asked a simple question, which was "Is anybody making models of molecules?"

It turned out no one was. Working with Carol Venanzi and other colleagues, Skawinski designed a new way to produce 3-D molecular models for blind and visually impaired scientists and students. In his design, a computer-controlled laser creates a polymer model based directly on images in a computer-aided design program.

Skawinski has accomplished all this despite his blindness, which resulted from a progressive condition that left him without sight a few years after earning his BS in chemistry at the Stevens Institute of Technology in 1970. Though he went on to earn his MS from NJIT and his PhD from Rutgers, Skawinski is candid about having to do science differently because of his disability. "Science is heavily info-intensive," he says, "and I had to develop a number of skills and work hard to set up techniques for myself for acquiring and handling information and getting it when I needed it."

As his disability progressed, he benefitted from advances in assistive technologies for the visually impaired. "I've used recorded materials for years, along with Braille and molecular model kits. Today, we have talking computers, Braille printers, and Braille displays. I use them every day."

In a field in which sight and spatial understanding are so important, how has Skawinski been able to excel? "Above all, by being better organized," he says. "I keep every kind of information on computer so that it will be accessible to me. I have come very close to having that paperless office everyone's been talking about." Without question, the computer has been a godsend for scientists like Skawinski, allowing them to store and access information in new and better ways. Books on CD are easier to use than are books on tape. And the clever user, like Skawinski, can customize his or her own system. "I love the concept of the personal computer, with the emphasis on personal," he says.

While he has spoken to scientists who have encountered prejudice because of their disabilities, Skawinski himself has encountered only "tremendous people" who he says have given him excellent opportunities. "Scientists are most interested in what you can do, and they'll give you the same opportunity to succeed or fail as they would anyone else. At first, they may wonder exactly how you are going to do it. But I'd just be frank with them: I may ask for help from time to time, but I'll reach the goals by myself. Most of them simply say, 'If you can find a way of doing it, who am I to say you can't'?

All this technological advancement has allowed Skawinski to be primarily a
Wyeth-Ayerst Research, a major division of American Home Products Corporation, currently offers five opportunities available at two of their pharmaceutical research facilities. These openings are available in the Published Information and Proprietary Information Resources departments of the R&D Information Management (IM) division. The Published Information group provides both biomedical and chemical on-line search services to the entire company, leads end-user search programs and projects, and has a heavy focus on new search technologies and current awareness. The Proprietary Information Resources group is responsible for maintaining proprietary chemical and biological databases, leading Discovery IM projects, and providing user support and training for Discovery personnel. General requirements for all of the positions include exceptional communication skills, knowledge of the drug discovery process, strong desktop computing skills, and prior experience with information management.

**Princeton, NJ**

**Senior Chemical Information Scientist**

Major responsibilities: Providing journal, patent, and chemical information in response to client inquiries, which includes on-line literature searches, syntheses, analysis, and evaluation of data. Additional responsibilities include training, leading projects, coordinating end-user search programs (SciFinder, STN Express), supporting research project teams, and acting as a liaison with attorneys and other departments.

Requirements: Degree in Organic Chemistry required. Ph.D with 1-2 years relevant experience, or M.S. with 3-5 years relevant experience, or B.S. with 6-9 years relevant experience. Knowledge of chemical and patent searching, including patent fragmentation coding and STN Express is required.

Position # OPSCI-1817

**Senior Biomedical Information Scientist**

Major responsibilities: Providing biomedical and industry information support and programs, which include on-line literature searches, syntheses, analysis and evaluation of data, and current awareness information. Additional responsibilities include development and implementation of IM programs, training, leading projects, and acting as a liaison with other departments, including research and clinical development project teams.

Requirements: Degree in Biology or Biochemistry required. Ph.D. with 1-2 years relevant experience, or M.S. with 3-5 years relevant experience, or B.S. with 6-9 years relevant experience. Knowledge of biomedical searching and basic research concepts required.

Position # OPSCI-1925

**Chemical Information Analyst**

Major responsibilities: Maintaining and supporting proprietary chemical databases. This includes naming of chemical compounds, data registration, quality control of chemical data, end-user support and training, preparation of technical documentation, and participation in cross-departmental project teams.

Requirements: Degree in Organic Chemistry or Biology with a strong organic chemistry background required. M.S. with 1-2 years relevant experience or B.S. with 3-5 years relevant experience. Knowledge of chemical nomenclature, relational databases, chemical registration, and the drug development process required.

Position # OPSCI-1748

**Pearl River, NY**

**Senior Information Analyst**

Major responsibilities: Maintaining and supporting proprietary information databases for Discovery Research, including training, and preparation of technical documentation. Heavy focus on data retrieval, analysis and evaluation for end-users, and quality control of the data. Additional responsibilities include acting as a liaison with other departments and project team involvement, and leadership of and involvement in project teams.

Requirements: Degree in Organic Chemistry or Biology required. Ph.D. with 1-2 years relevant experience, or M.S. with 3-5 years relevant experience, or B.S. with 6-9 years relevant experience. Knowledge of relational databases, chemical registration and project methodology required.

Position # OPSCI-2006

**Information Scientist**

Major responsibilities: Providing chemical, biomedical and industry related information by performing on-line literature searches, client training, coordinating end-user search programs (OVID, STN Express, SciFinder) and developing, implementing and supporting IM projects, programs and services.

Requirements: MLS strongly preferred, with a degree in Organic Chemistry, Biology, or Biochemistry, with an M.S. and 1-2 years relevant experience or with a B.S. and 3-5 years relevant experience. Experience with STN Express, knowledge of biomedical/drug development terminology, and familiarity with basic research concepts are required.

Position # OPSCI-1828

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telecommuter. "I go into the office mostly for meetings and to supervise students and troubleshoot their laboratory problems," he says. The Institute has been "extremely encouraging and very cooperative" in making facilities available and helping Skawinski design his personal paperless office. "Whenever I ask for something I need, they'll get it," he says, "but there hasn't been much."

His innovative molecular models continue his professional interest in creating ways for blind students to do science. While doing his doctoral work at Rutgers in the early 1980s, he was also working at NJIT, developing laboratory accessibility strategies and devices for blind students and scientists. "I was interested in making undergraduate chemistry and physics experiments more accessible to blind students," he says. One of his inventions was a modified spectroscope with an audio information output, so a blind person could sit at a computer keyboard and operate the lab instrumentation. "Those were early days for such devices," he says with a chuckle. "Today, anybody could build these things for themselves."

These days Skawinski is working on computational studies on amiloride. "We're doing some NMR studies to ascertain the structure of this family of drugs," he says, "and we're again using stereolithography, trying to learn about the protein channel this family of drugs acts on at the molecular binding site." He speaks with enthusiasm about new developments in materials science. "Having a better understanding of molecular structures allows us to design materials, just as we design drugs, with specific properties for specific purposes," he says.

For the scientist with disabilities, Skawinski offers some practical advice. "First of all, make sure you have an interest in doing science. Second, be prepared to do a lot of extra work. You're going to have to find ways to get as much information as you can. Develop personal strategies to handle lab work, technicians, and systems. And, of course, do as much as you can yourself."

It's clear that he thinks the first piece of advice is the most important of the two. "You have to like doing the work to like science," he says. "It's not enough to be enamored of the image of the scientist. I've known people who want to be a scientist but are not willing to go through all the preparation. Eventually, they dropped out. For me, it was always the work that I found most interesting. If you enjoy the work, it's worth it."

Making It on Merit: Jeff Liebman of CIBA

"Most disabled persons who have come far enough to get a science degree understand that no one owes them anything, that they have to make it on their own merits. I've seen a few people lose sight of that axiom with the new ADA legislation—but it remains as true as ever."

Those words come from Jeff Liebman, a senior research fellow in osteoarthritis and rheumatoid arthritis in the biology group at CIBA Pharmaceuticals in Summit, New Jersey. Liebman, who is celebrating his twentieth service anniversary with CIBA this year, has built a career out of scientific excellence, a steady insistence on self-reliance, and an ability to take new directions when necessary. Such attributes, valuable for any scientist, are, as the above quotation demonstrates, indispensable for the scientist with disabilities.

Deaf since birth, Liebman received his PhD in physiological psychology—"what you'd now call neuroscience," he says—from UCLA in 1973. "From quite early in my graduate studies," he says, "I sensed that industry might be more attractive than an academic career." After three postdoctoral years working in behavioral psychopharmacology at the University of California at San Diego, Liebman joined CIBA in 1976.

Twelve years into his career, Liebman had to make a mid-course career change. Though the fact is little discussed, retooling has long been part of the life of the industrial scientist. As science changes more and more rapidly, skills, techniques, technologies, even whole fields are rendered obsolete with increasing speed. In response, an increasing number of scientists are changing directions, returning to school to gain new skills or new degrees.

For his part, Liebman was managing eleven other scientists in the behavioral neuroscience group within the neuroscience subgroup at CIBA, when in 1988 his department was terminated for business reasons. What some might see as misfortune, Liebman saw as an opportunity. "I felt at that time that my research skills and area of expertise were becoming obsolete," he says. "My company had an opportunity in another department and was very supportive of my acquiring the skills to transfer there." After working at the NIH for a little over a year to acquire the relevant molecular biology expertise, Liebman returned to CIBA.

Now he describes himself as "primarily a molecular biologist with some cell biology work sprinkled in." He has been spending the last two years expressing recombinant proteins, primarily isoforms of an enzyme believed to be involved in inflammation. Like most molecular biologists today, he speaks with excitement about genomics, molecular modeling, intracellular signalling, and combinatorial screening. "No recent graduate can enter this field without being familiar with at least one of these," he says.

Liebman spends from half to two thirds of his time in the laboratory, dedicating the remainder to literature searches, computer work, and interaction with colleagues. He is happy to report that he needs "no major accommodations at all" in his current environment: "I sought a work situation which would minimize accommodation while allowing me to pursue my scientific interests and use my abilities."

Do scientists with disabilities have to work harder to gain recognition? "Everyone here is a hard worker," Liebman says, "but as for the perception, that really varies." There still may be some scientists who harbor unconscious prejudices and expect unrealistic compensatory qualities. But Liebman quickly adds, "I think open-minded people who are able to see through to the real person behind the disability are less likely to require superhuman compensation. The vast majority of people I have encountered in my career have been in this category, I am happy to say: fair-minded and able to see me as a real person."

For scientists entering the job market, Liebman has the following recommendation: "Do not get into a situation in which you have to ask for special favors with any employer. Minimize your accommodations; seek the type of work where those will be as minimal as possible. That, of course, is in addition to having the other qualities it takes to survive in research today: a solid and broad foundation of scientific knowledge, adaptability, flexibility, good communications skills, and an outstanding attitude." His twenty years at CIBA suggest that Liebman has all these qualities in large supply.
Bayer Corporation maintains a leading worldwide position in the field of Biotechnology. We have the expertise, resources and established business infrastructure to develop, manufacture and market biotechnology products internationally. Bayer combines the broad experience and the financial and technical resources with the focused expertise, entrepreneurial spirit and flexibility of a typical biotechnology company. In your search for an exciting career opportunity, consider joining our well funded state-of-the-art biotechnology site.

**SENIOR STAFF SCIENTIST**

In this position as Senior Cell Biologist, you will lead 4-5 cell biologists to optimize productivity of genetically engineered cell lines, develop serum free production media for production cell lines, and evaluate the genetic stability of recombinant cell lines in small bioreactors. Requires close interaction with scientists in other departments including Experimental Fermentation and Molecular Biology.

**Qualifications:** Requires a PhD in cell biology with 8-10 years postdoctoral and industrial experience in mammalian cell culture. A strong background in molecular biology or biochemistry is essential. Good communication and interpersonal skills.

**VALIDATION SPECIALIST**

Directs and controls the Validation documentation system (CSRs and Protocols). Directs temporary employees in the coordination and control of document processing and clerical operations, and ensures the standardization and uniformity of the Validation documents including change control. Maintains master logs and retrieves documentation records. Conducts follow-up and writes status reports.

**Qualifications:** BS in Computer Science plus 3 years experience in change control systems and technical writing, or an equivalent combination of education and experience.

**CLINICAL DATA ANALYST/SENIOR CLINICAL DATA ANALYST**

In our Clinical Research Department, you will conduct and coordinate the clinical data for PDA submissions and other medical reports through protocol development, case report from design, data computerization and data presentation. Analyzes and develops solutions to problems in data handling created by the changing requirements in medical data processing. Ensures the quality of the data used in regulatory submissions meets FDA standards. Handles multiple projects of high levels of complexity.

**Qualifications:** Requires Bachelor's Degree and 3-4 years experience in the analysis and reporting of medical data from clinical trials or Master's Degree with 1-2 years clinical data experience.

Senior position requires a Bachelor's Degree in a scientific area and 5-8 years of experience in the analysis and reporting of clinical data trial, or Master's Degree with 3-4 years of experience. Competence in data management, tabulation, and presentation methods using SAS is required.

We offer an excellent salary and benefits package. Please submit your resume to:

BAYER CORPORATION
Human Resources Department
Attn: T.R. Cuy
P.O. Box 1986
Berkeley, CA 94701

EOE/AA/ID
THE SCRIPPS RESEARCH INSTITUTE (TSRI) invites nominations for a newly established Governors Fellowship Program at the Institute in La Jolla, California. Developed under the auspices of TSRI’s Board of Scientific Governors, the program is designed to offer a five-year fellowship in the life sciences or bioorganic chemistry to an outstanding candidate who shall be nominated by an established member of the scientific community. It is anticipated that one such appointment will be made in 1997.

The successful candidate will hold dual appointments at The Scripps Research Institute as well as Scripps’ newly established Skaggs Institute for Chemical Biology. The fellowship is designed to be independent in nature; the awardee will receive designated laboratory space and facilities, and funding to include a stipend, research support, technician support and operational expenses.

Nominations are now invited from members of the scientific community for candidates of exceptional ability. Nominations should include a letter of qualifications, curriculum vitae, as well as a formal research proposal (prepared by the candidate) not to exceed two pages. The Governors are looking for young scientists who have significant promise in their chosen fields of inquiry.

Five finalist candidates will be invited to present their scientific proposals to the Board of Scientific Governors at their annual meeting at the Institute in La Jolla on January 8-9, 1997. Nominations must be submitted by October 15, 1996.

Please submit nominations to William H. Beers, Ph.D., The Scripps Research Institute, 10550 North Torrey Pines Road, La Jolla, CA, 92037

BOARDS OF SCIENTIFIC GOVERNORS

Dr. Michael S. Brown
University of Texas Southwestern Medical School

Professor Jean-Pierre Changeux
Institute Pasteur

Dr. Samuel Danishefsky
Sloan Kettering Institute and Columbia University

Professor Mitchell Feigenbaum
Harvard University

Dr. Edmond Fischer
University of Washington

Dr. Wally Gilbert
Harvard University

Dr. Joseph L. Goldstein
University of Texas Southwestern Medical School

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Massachusetts Institute of Technology

Professor Aaron Klug
Medical Research Council

Dr. Howard Rasmussen
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Professor George Whitesides
Harvard University

Professor Semir Zeki
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Be a big fish and expand your horizons

BIOSCIENCE TEAM LEADERS

- Gene Discovery
- Metabolism
- Cancer & Cancer Immunology

Negotiable Salaries, Bonus + attractive benefits
Semi-rural Cheshire

Ever worried that developing your managerial skills will mean leaving your science behind? Then look no further - at Zeneca we know how much you enjoy Research, and these are genuine hands-on leadership roles.

With a £2 billion turnover and a global reputation for quality and innovation, Zeneca has one of the strongest drug pipelines. We rely on an innovative and challenging research environment, based within one of the biggest facilities of its kind in Europe, to push back the boundaries of drug discovery.

We now seek to strengthen our teams through the appointment of a number of Team Leaders. We will give you the freedom, the infrastructure support and collaborative links with leading institutions to enable you to conduct high quality research, and you will benefit from interacting with highly qualified colleagues from other departments and disciplines.

GENE DISCOVERY

Here's an opportunity to apply your expertise to this exciting area of research. In this newly-formed group, you will be part of the team which establishes and develops the function, in addition to guiding your group towards challenging objectives.

PhD qualified, with an interest in gene discovery, you should have a strong background in molecular/cellular biology, and experience in differential gene analysis will add weight to your application. (Ref P818).

METABOLISM

The key aspect of this role will be to grow a team which takes an integrated biochemical approach to the study of metabolism.

Your PhD in Biochemistry, Physiology or Molecular Biology will be complemented by at least 2 years' experience in metabolism and an interest in diabetes, obesity, or intermediary metabolism. (Ref P819).

CANCER & CANCER IMMUNOLOGY

We seek a PhD scientist with an established interest and expertise in cancer research and a strong desire to make a major contribution to the discovery of new cancer treatments. The desire to apply modern cell, biochemical and pharmacological skills to the process of drug discovery is essential. (Ref P820).

We also seek a PhD immunologist with experience in cell and molecular biology and a keen interest in applying modern immunological techniques to the discovery of immunomodulators to be used as new cancer treatments. You will have the responsibility of running your own project and support staff and be expected to contribute to our expanding cancer immunotherapy strategy. (Ref P821).

For all these positions, we place particular emphasis on innovation, flexibility and analytical thinking.

Salaries are negotiable according to qualifications and experience, and are geared to attracting high calibre individuals; we operate a progressive performance award system. The comprehensive range of benefits includes performance bonus, generous holidays, non-contributory family medical insurance, 12 months' notice and relocation assistance, if appropriate, to this semi-rural location close to the major commercial centres of the North and well situated for first class cultural and leisure activities.

These positions offer excellent opportunities to develop a career within a truly international business operating at the frontiers of human and technical capability.

For more information, please send full CV to Bill Cogle, Director - Consultancy Services, Austin Knight UK Limited, 98 King Street, Manchester M2 4WD. United Kingdom. Please ensure that you quote the relevant Reference Number in your covering letter.

Austin Knight

ZENECA Pharmaceuticals
The Division of Cardiovascular Diseases of the Mayo Clinic and Foundation invites applications for an established investigator position at the rank of Associate or full Professor. Applicants should have an M.D. or Ph.D. degree and an established record of accomplishment in basic cardiovascular research such as in molecular or cellular biology which focuses upon endothelial, vascular smooth muscle or cardiac myocyte biology. Excellent institutional resources and long-term support are available. Written applications including CV, three letters of recommendation and a description of research interests should be sent to: John C. Burnett, Jr., M.D., Cardiovascular Chair for Research, Director, NIH Cardiovascular Research Training Program, Mayo Clinic, 200 First Street, SW, Rochester, MN 55905. Applications will be considered until September 1, 1996. Mayo Foundation is an affirmative action and equal opportunity educator and employer.

**Staff Positions**

**GENETICS DEPARTMENT**

The Hospital for Sick Children is a health care, teaching and research centre dedicated exclusively to children; affiliated with the University of Toronto. The Genetics Department is seeking individuals with an M.D., Ph.D., or equivalent degree to conduct independent research at the Scientist or Senior Scientist level (Assistant to Full Professor ranks). Applications are invited from individuals who have demonstrated achievements in genomic approaches to disease research, analysis of complex traits, or study of mammalian gene regulation and development. Clinical geneticists with strong basic research programs are encouraged to apply. Applicants should be eligible for an academic appointment to the University.

Applicants should submit a curriculum vitae, reprints of three to five recent publications, a statement of research and future directions, along with the names, addresses, telephone and FAX numbers of three referees, by July 29, 1996, to: Dr. Lap-Chee Tsui, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario MSG 1X8. Fax: (416)813-4931. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

**Research Scientist**

**Rhône-Poulenc Rorer Research and Development**, a world leader in pharmaceutical research, has an opportunity available in the Cardiovascular Biology Department of our Collegeville, Pennsylvania research site.

Qualified candidate will use molecular, cell culture/lipid and protein biochemistry to design and conduct experiments to identify and determine feasibility of proposed atherosclerosis drug targets, interact proactively with other in-house molecular groups to achieve desired goals, and identify/develop proposals and new technologies for research programs.

Requirements include a Ph.D. in Molecular Biology/Biochemistry with 2 years postdoctoral study and 0-5 years industrial/academic experience in atherosclerosis research including tissue culture experience in generating and maintaining vascular cell cultures, lipid biochemistry training and expertise with current molecular and cell biology techniques. Strong organizational skills and excellent communication skills are required.

RPR offers a competitive compensation and benefits package including 401k plan and tuition reimbursement. Qualified candidates should submit their resume to: Rhône-Poulenc Rorer Research & Development, Human Resources, Mailstop H37, Position 616/618, P.O. Box 5093, Collegeville, PA 19426-0800. Equal Opportunity Employer, M/F/D/V.

**Be Part of the New VA**

**DIRECTOR**

Health Services Research and Development Service

The Department of Veterans Affairs (VA) invites applications for the position of Director, Health Services Research and Development (HSR&D) Service. The major challenge facing the VA in the coming decade is providing appropriate, high-quality health care to the nation's veterans at reasonable cost. The HSR&D Service mission is to participate in the search for the most cost-effective approaches to delivering quality health care. To achieve this mission, HSR&D supports health services research studies that examine the effects of organization, financing, and management of health care in terms of quality, access, and health outcomes. The program focuses on advancing and disseminating the state of knowledge regarding health services to VA and the nation.

The incumbent is responsible for policy development in addition to the management and scientific aspects of the HSR&D programs. This includes managing an appropriated budget of approximately $35 million. HSR&D programs include investigator initiated and service directed research, in addition to operational research occurring within the new Veterans Integrated Service Networks. The individual selected will play a critical role in the organizational restructuring of this program.

Applicants must be U.S. citizens and must possess an active and current license to practice in their respective discipline(s). Candidates are expected to have a strong scientific and managerial background, and to hold an M.D., D.D.S., or earned Ph.D. Salary is $129,344—$167,292 for physicians, $99,844—$124,792 for dentists, and $81,278—$100,939 for allied health professionals/non-clinician managers.

Applicants should forward a curriculum vitae to: Department of Veterans Affairs, Management and Administrative Support Office (163B), 810 Vermont Ave., NW, Washington, DC 20420. Curriculum vitae must be received no later than July 31, 1996. The Department of Veterans Affairs is an Equal Opportunity Employer.
Assistant Administrator
Office of Oceanic and Atmospheric Research
(A Senior Executive Service Position in the Federal Government)

Department of Commerce
National Oceanic and Atmospheric Administration
(NOAA)
Assistant Administrator,
Office of Oceanic and Atmospheric Research
Silver Spring, Maryland
$100,526 - $122,688 annually

The candidate selected for this highly-visible prominent position will have responsibility for the direction and administration of the Office of Oceanic and Atmospheric Research (OAR), including various national research programs.

Mandatory Professional/Technical Qualification Requirements:

• Broad background in physical science and/or engineering with experience in one or more of the following: atmospheric, oceanic and/or environmental science.

• Broad experience with basic and applied atmospheric and/or oceanographic research and related applications and policy issues.

• Broad knowledge of the technological applications and policy issues that motivate oceanic and/or atmospheric research.

• Substantial experience in research administration and direction in area(s) relevant to OAR's mission.

Please contact (301) 713-0534 / (301) 713-0973 (TDD) for an application package, including mailing instructions. Refer to announcement number NOAA#96-10. This vacancy closes on July 12, 1996

POSTDOCTORAL ASSOCIATE POSITIONS
THE UNIVERSITY OF IOWA
COLLEGE OF MEDICINE

Please contact the following departments for postdoctoral positions at the College of Medicine. Postdoctoral positions are limited to a maximum of three years. A Ph.D. or equivalent is required. Desirable qualifications are based on Project Investigator's interest for research. Send curriculum vitae and the names/telephone numbers of three references to the individual listed below. Please specify area of interest in letter of application in accordance with the categories listed under each department below. Women and minorities are strongly encouraged to apply. The University of Iowa, College of Medicine, Iowa City, Iowa 52242, is an Equal Opportunity/Affirmative Action Employer.

Anatomy—Research areas include fetal alcohol syndrome, cell and molecular biology, cancer, development, muscle including cardiovascular, and neuroscience. George McHenry, 1-577 Bowen Science Building.

Biochemistry—Research areas include biochemistry, biophysics, cell biology, and molecular biology. Dr. Alan G. Goodridge, 4-403 Bowen Science Building.

Internal Medicine—Research areas include allergy-immunology, cardiology diseases, clinical pharmacology, endocrinology, gastroenterology-heptology, general medicine, hematology-oncology, infectious diseases, nephrology, pulmonary diseases, and rheumatology. Michele Pugh, Human Resources Administrator, E400 GH.

Microbiology—Research areas include immunology, virology, pathogenic bacteriology, microbial genetics, microbial physiology, biotechnology, and medical mycology. Ms. B. K. Spence, 3-403C Bowen Science Building.

Neurology—The Department of Neurology welcomes applications for Postdoctoral Associate positions, which may be recruited in the following subspecialty areas: neuropsychology, epilepsy, cerebrovascular disease, stroke, clinical electrophysiology, neuromuscular disease, neurochemistry, and the Laboratory of Neurobiology and Circulatory Control. Antonio R. Damasio, M.D., Ph.D., Professor and Head, Department of Neurology.

Obstetrics/Gynecology/Pharmacology—Postdoctoral Associate position is available to study the molecular genetics of oncogene/tumor suppressor gene expression in ovarian cancer with a goal of establishing novel gene therapy strategies. Molecular biology experience required. Richard E. Buller, M.D., Ph.D., Associate Professor, Director, Division of Gynecologic Oncology, Department of Obstetrics and Gynecology and Pharmacology. Phone: (319) 356-2015.

Pathology—Postdoctoral research training in molecular and cellular pathology, translational research, and outcomes research. Richard G. Lynch, M.D., Professor and Head, Department of Pathology, 144 Medical Laboratories.

Pediatrics—Possible openings in pediatric specialties, i.e., genetics, gastroenterology, allergy/pulmonary. Frank H. Morriss, M.D., Professor and Head.

Pharmacology—Openings available in all areas of pharmacology, including molecular and cellular mechanisms of drug action and metabolism, signal transduction, and neuropharmacology. Dr. Gerald F. Gebhart, Professor and Head, Bowen Science Building.
TWO FACULTY POSITIONS

The Department of Biology and Molecular Biology is seeking applicants to fill two TENURE-TRACK positions. For the first position, candidates should have demonstrated ability to develop a research program utilizing molecular approaches to basic biomedical problems and an interest in teaching, and be prepared to develop a research program in the application of X-ray diffraction analysis to problems in the field of structural biology. Candidates should have a Ph.D. or equivalent in the field of their specialization. Candidates should also have a demonstrated ability to attract significant extramural funding. Interested individuals should send a curriculum vitae, outline of research interests, and the names of three references to: Chairman, Department of Biology and Molecular Biology, Wayne State University, School of Medicine, 540 East Canfield Avenue, Detroit, MI 48201. Wayne State University is an Equal Opportunity Employer. Women and minorities are encouraged to apply. All buildings, structures, and vehicles at Wayne State University are smoke-free. Wayne State University—People working together to provide quality service.

CLINICAL SCIENTIST

Human Genetics Program

Geisinger Clinic, the Henry Hood Research Program, is seeking a recently trained PHYSICIAN to practice human genetics in the Pediatrics and Obstetrics/Gynecology divisions and to do laboratory research in molecular genetics. The candidate will be a Clinical Assistant Professor in the Henry Hood Research Program with up to 25% time devoted to clinical activities. This position is funded by an endowment. Research funds include budgeted monies for supplies and technical support. Successful candidates will be expected to attract additional extramural funding collaboratively with members of the Basic Research Program. Successful candidates should be Board-certified/Board-eligible in the field of their training. The Geisinger Medical Center is the largest and most advanced integrated health care system providing care for 2.3 million in eastern and central Pennsylvania. The Medical Center is located in Danville, Pennsylvania. You can enjoy the advantages of living in a small community, good schools, and reasonable housing costs and still do research and practice medicine in a large urban style medical center. Please send your curriculum vitae along with all inquiries to: Howard E. Hamaker, M.D., Geisinger Science and Research Fellowship, Box 461, Geisinger Medical Center, 100 North Academy Avenue, Danville, PA 17822-2601. FAX: 717-271-6701. Equal Opportunity Employer. Minority/Female/Disabled/Veteran.

BIOMEDICAL ENGINEER—Conduct clinical biomedical research; apply computing and biomedical engineering knowledge to medical instrumentation, diagnostic equipment, clinical and administrative information systems. Use Mathlab, Labwindows/CVI, C, Pspice, and SAS for statistical and engineering analysis of biomedical systems. Conduct research in system identification and biological control systems using Transcendal Doppler, EEG, Cerebral Oximetry. Administer department’s computer networks and systems. Develop diagnostic methodologies for the acquisition and archival of clinical data and other SW for specific department use. Provide technical expertise for the purchase of equipment and software for biomedical engineering research; obtain competitive bid awards for new research projects. Requires Master’s degree in biomedical engineering plus one year of experience in duties described or one year of experience as graduate research assistant in biomedical engineering. Course work or experience must include modern control systems and theory; adaptive and optimal controls; system identification; computer and neural networks. Will accept Bachelor’s degree in biomedical engineering with additional years of experience in the Master’s degree. Transcripts of college work and experiential references required. Salary: $34,925 per calendar year, effective October 1, 1996. Work 8:00 a.m. to 5:00 p.m., 40 hours per week. Applications should be sent to: Virginia O. Schubert, Administration, Office of Federal Contracting, American Red Cross, 811 7th Street, N.W., Washington, D.C. 20001, Attn: Equal Opportunity Employment. United States. Resumes to: Y. Wright, Alabama State Employment Service, P.O. Box 12046, Birmingham, AL 35202-2046. Refer to Job Order Number AL 509251. Equal Employment Opportunity.

ASSISTANT/ASSOCIATE PROFESSOR

NEUROPHYSIOLOGIST

University of Florida College of Medicine

The Department of Pharmacology and Therapeutics in conjunction with the Center for Biophysics and its program in Signal Transduction and Drug Discovery invites applications for a TENURE-TRACK FACULTY position for individuals having a Ph.D. and/or M.D. with demonstrated excellence, who are supported by the Lucille P. Markey Charitable Trust. The successful candidate will be expected to develop an independent and interactive research program and contribute to the teaching of professional and graduate students. Applicants with demonstrated productivity using molecular and cellular approaches to study CNS signal transduction are particularly encouraged. Preference will be given to those who also have experience in teaching. The appointment will be for 100% of the person's time. A letter of recommendation is preferred. Applications deadline is January 30, 1997. Salary is commensurate with experience. A letter of recommendation to: Chair, Search Committee for the Markey Faculty Scholars Program, Department of Pharmacology, Box 100267, University of Florida, Gainesville, FL 32610-0267. Application deadline is January 30, 1997.

ASSOCIATE LABORATORY DIRECTOR

Fairfax Identity Laboratories, a division of the Genetics and Molecular Biology Laboratory of the University of Florida, is seeking a full-time ASSOCIATE LABORATORY DIRECTOR. Qualifications include a doctoral degree in genetics, molecular biology, or a related field with interest or experience in parenteral custody analyses. Experience in human genetics or related fields provides a stimulating environment in which leadership, innovation, and research are encouraged. We offer a comprehensive benefits package and a fine location in the Washington, D.C., metropolitan area. Fairfax Identity Laboratories invites women and minorities to apply. For immediate consideration please forward your curriculum vitae to: Dr. Daniel B. Demers Fairfax Identity Laboratories 3025 Hamaker Ct., Suite 203 Fairfax, VA 22031 FAX: 703-698-3933 Equal Opportunity Employer/Men/Female/Disabled/Veteran.

WELL-BEHAVED DISCIPLINE WITH PROBLEMS.

Interestingly, this document appears to be a collection of job advertisements and announcements, likely for academic or research positions. It includes various positions requiring different qualifications and experiences, ranging from biology and genetics to computer engineering and medical research. Each position describes the requirements, responsibilities, and the contact information for the potential applicants. The text is structured in a way that is typical for such announcements, with clear headings indicating the type of position and the specific requirements for each role.
GlaxoWellcome is the world largest research based pharmaceutical company with research centres present in eight different countries. An internationally recognized scientific tradition together with a proven track record of success in the discovery of novel and innovative drugs has been established at Glaxo Wellcome S.p.A. Medicines Research Centre in Verona.

The research centre employs over 400 scientists working on antibacterial and CNS therapeutic areas. It offers a stimulating human and scientific environment with scientists coming from many foreign countries. Novel technologies in chemistry and in biology are creating significant changes and exciting challenges in drug discovery process. The Department of Medicinal Chemistry consists of about 50 scientists, who interact closely with the biological departments. In order to exploit all the opportunities offered by the novel technologies the Department of Medicinal Chemistry is seeking motivated scientists for the following positions:

HEAD OF EXPLORATORY CHEMISTRY (Ref. n° 6/96)
The successful applicant will manage a new dynamic research group which will operate in the early phase of the drug discovery process. The Exploratory Chemistry Group will have a strong integration with the Lead Generation Unit and its main objective will be to successfully generate high quality lead compounds from the hits emerging from high throughput screens. Applicants should have a documented experience in Medicinal Chemistry and in Combinatorial Chemistry, together with a solid background in biology and analytical sciences. Experience in antibacterial and/or CNS area will be considered desirable.

RESEARCH SCIENTIST (Ref. n° 7/96)
The successful applicants, who will be involved either in the lead identification or in the lead optimization process, will have a solid background in organic chemistry and at least a 5 years post-doctoral experience either in pharmaceutical industry or within academic institutions.

The company is based in Verona (Italy) and offers a challenging and creative working environment with a remuneration package in relation to the experience of the candidates.

Please send your CV and list of publications to:

Glaxo Wellcome S.p.A. - Servizio Selezione Via Fleming 2
37100 Verona, Italy
Please quote the appropriate reference.

The Paterson Institute for Cancer Research

The Paterson Institute for Cancer Research is an independent multi-disciplinary Cancer Research Institute within the Christie Hospital NHS Trust. The Institute currently has a research staff of 180, a total staff of over 200 and total annual budget of £6.8m of which £4.5m comes from the Cancer Research Campaign. The Institute benefits from close research links with the clinical staff of the Christie Hospital and has substantial financial support from the Hospital’s Endowment Funds. It is also part of the Department of Oncology of the University of Manchester and runs a vigorous postgraduate programme. An appropriate University Title will be offered to the new Director.

The Institute’s Council is looking to appoint an individual with an outstanding record of achievement in research and proven experience of directing and managing a substantial research activity. The Director will be expected to develop and implement a scientific strategy for the Institute which both builds on its strengths and enhances its scientific standing as well as optimising its relationship with the Christie Hospital.

The salary will reflect the importance that the Paterson Council attaches to this post and the level of responsibility. Prospective applicants may contact Dr T A Hince, Director, Scientific Department, Cancer Research Campaign on 0171 224 1333 for an informal discussion and further particulars.

Applications should comprise a summary of the applicant’s views on the likely future scientific and strategic directions of the Institute, together with a curriculum vitae and the names and contact details of three referees. These should be sent to Prof. Derek Burke CBE, Chairman of the Paterson Council c/o Cancer Research Campaign, 10 Cambridge Terrace, London NW1 4JL by 23rd August 1996.
INFLAMMATION PHARMACOLOGY

Scientist

SmithKline Beecham Pharmaceuticals, a world leader in pharmaceutical research, has an opportunity for a Scientist to join the Department of Inflammation Pharmacology.

The selected candidate will participate in the drug discovery process for immunologically driven inflammatory diseases and explore new molecular targets for immunological diseases. You will also be required to help establish new in vitro and in vivo model systems to facilitate research efforts, in the department, and to participate in the writing of manuscripts.

Qualifications include a BS (or equivalent) in Immunology, Molecular Biology or Cell Biology, and 2+ years of post-doctoral experience in Immunology, immunopharmacology or related field. Candidates must also demonstrate expertise with in vitro techniques (ELISA, Northern, Southern, Western analysis, cell culture). Experience with in vivo immunological models is recommended.

Located in our technologically advanced research facility in suburban Philadelphia, SmithKline Beecham offers an excellent compensation/benefits/relocation package. Interested candidates should send CV and salary requirements to: Jobs Code HS-0498, P.O. Box 2645, Bala Cynwyd, PA 19004. We are an Equal Opportunity Employer, M/F/D/V.

SB
SmithKline Beecham Pharmaceuticals
Challenging the natural limits.

THE UNIVERSITY OF ILLINOIS
AT CHICAGO

SPECIALIZED CANCER CENTER
Faculty Positions in Cancer Research

The Specialized Cancer Center of the University of Illinois at Chicago is initiating recruitment for Ph.D. or M.D. faculty members.Preference will be given to applicants with research experience and novel programs in either tumor cell biology or experimental and molecular therapeutics, with an emphasis on the genetics of DNA repair, anticancer drug action and resistance, cell cycle or cell death regulation, or mechanisms of metastasis, with a goal of developing unique translational research opportunities. Tenure-track appointments at the levels of Assistant or Associate Professor will be made directly into the Cancer Center, with secondary appointments in appropriate academic departments of the College of Medicine. The UIC Cancer Center is part of a larger medical and cancer community in the Chicago area and affords opportunities for scientific interactions both on and off campus. The Cancer Center laboratories are located in the new, state-of-the-art Molecular Biology Research Building that houses investigators from other departments who have research programs in tumor cell biology, genetics, experimental therapeutics, experimental hematology, virology, medicinal chemistry, structural biology, and related disciplines. Applications from women and minorities are particularly encouraged. Candidates are asked to send a letter providing a brief synopsis of research interests and plans, a current curriculum vita, and the names and phone numbers of at least three references to:

William T. Beck, Ph.D. 
Director, Cancer Center (M/C 569) 
UIC College of Medicine 
900 S. Ashland Ave. 
Chicago, IL 60607-7173

The University of Illinois at Chicago is an Affirmative Action/Equal Opportunity Employer.
In May 1995, we filed for U.S. regulatory approval of a new treatment for multiple sclerosis. We are now in the process of building the infrastructure and capabilities we will need to commercialize this drug, which is our first proprietary product. Our record of success to date is based on the hard work and dedication of our employees. We are now seeking a select number of committed professionals with strong values to join the Biogen team.

**Director – Biological Science**

We are currently seeking a proven scientific leader to direct our efforts in the areas of molecular biology/molecular genetics. In this role, you will oversee the work of approximately forty talented individuals focused currently in areas of growth regulation, viruses, gene therapy and vascular biology. The successful candidate will hold a Ph.D. or M.D./Ph.D. in molecular sciences and have a minimum of ten years’ experience. He/she will have a distinguished record of scientific achievement, a strong publication history, and be well-versed in the use of molecular techniques. Industry experience is desirable, but not required.

Biogen offers what few companies in our industry can – Professional Challenge, Stability, Growth, and one of the strongest financial profiles in the industry. In addition, our compensation and benefits package, including equity participation, is one of the best in the industry and is designed to attract and retain the finest talent available. If you are one of the best, this is your opportunity to join an expanding universe. Please forward your resume to the address below.

Biogen, Dept. JT, Biogen, Inc., 14 Cambridge Center, Cambridge, MA 02142. FAX: (617) 679-2546


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**National Center for Genome Resources**

Due to unprecedented growth, the National Center for Genome Resources, a bioinformatics company based in Santa Fe, New Mexico, is seeking the following individuals to join our team:

**BIOINFORMATICS OPPORTUNITIES**

**GROUP LEADER**

- Agricultural genomics and agricultural microbiology
- Mammalian (including human) pharmacogenetics/toxicology

**GROUP LEADER**

- Bioremediation and environmental microbiology
- Signal transduction and functional neuroscience

Aggressive, entrepreneurial self-starters needed to initiate and grow significant research and development programs in biotechnology database development and information services. The successful candidates will work with experienced database and user services groups and a professional software development team. Ph.D. and relevant postdoctoral experience, high-quality publication record, and a proven ability to raise research funds are required. Experience in or with the commercial sector a definite plus.

NCGR offers a competitive salary and benefit program including a relocation package. If you are interested in being a key member of our organization please submit your C.V. including references to the address below. Please indicate position of interest. Closing date for applicants is July 15, 1996.

To find out more about NCGR, you may access our home page at www.ncgr.org.

E-mail to: hr@ncgr.org
(in ascii or postscript format)
via fax: 1-505-962-7690
via mail to: NCGR
1800 Old Pecos Trail
Santa Fe, NM 87505 EOE.

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**EMBL**

The European Molecular Biology Laboratory (EMBL), an international research organization with its Headquarters Laboratory in Heidelberg (Germany), Outstations situated in Grenoble (France), Hamburg (Germany) and Hinxton (UK), and a Research Programme at Monterotondo (Italy) is conducting an open search for:

**COORDINATOR OF THE DEVELOPMENTAL BIOLOGY PROGRAMME**

The EMBL has started a new Developmental Biology Programme in Heidelberg. The Programme is focused on pattern formation and morphogenesis in vertebrates and invertebrates using approaches that encompass genetics, cell biology, biochemistry and molecular biology. EMBL is well suited to research in Developmental Biology because of its multidisciplinary scope, its strength in related areas, its highly collaborative environment and its tradition.

The new Programme will closely interact with and occupy new space adjacent to the Cell Regulation Programme which emphasizes signal transduction, cell cycle and differentiation. Strong links are also expected with the Cell Biology and Gene Expression Programmes. Additional interactions are possible with Cell Biophysics, Structural Biology and Biochemical Instrumentation, as well as with the new Programme of Mouse Genetics at Monterotondo.

The Developmental Biology Programme was started this year with three research groups working on *Drosophila* development (S. Cohen, A. Ephrussi, M. Moddiz), formerly belonging to the Differentiation/Cell Regulation Programme. Three additional groups are to be established from early 1997 to mid-1998.

For the position of Coordinator we are seeking active scientists with outstanding accomplishments who share our vision and collaborative outlook, and who are also skilled in personal interactions and resource management.

EMBL is an inclusive, equal opportunity organization.

The short list will be completed on 15 July 1996; applications are invited until that date.

For further information please contact the Director General and Chair of the Search Committee, Professor Fotis C. Kafatos, e-mail: kafatos@embl-heidelberg.de or FAX: +49-6221-387211.

To apply please send your CV and statement of research plans, quoting ref no. 96/17 to:

Head of Human Resources, EMBL, Postfach 10.2209, D-69012 Heidelberg, Germany.

Fax: +49 6221 387555
Are you at the forefront of science?

Hewlett-Packard Laboratories in Palo Alto, California is seeking several, creative, highly motivated research scientists to initiate discovery research projects with the goal of developing novel technologies for the field of measurement based Biotechnology. Hewlett-Packard Laboratories is the non-profit, central research division for the Hewlett-Packard Company. The goal of our research groups is to develop a long-term, visionary technology base for the Hewlett-Packard Company. The Hewlett-Packard Company’s investment in research is one of the highest among Fortune 500 companies. Our research facility is located in Palo Alto California, adjacent to the Stanford University Campus.

Our current recruiting effort is dedicated to putting together a strong, internationally recognized research group focused on the Biochemistry, Molecular Biology, and Cell Biology of RNA. Qualified individuals will have the highest level of academic credentials, strong publication records, and will have demonstrated the ability to initiate and perform "cutting-edge" basic research. Members of this research group will be required to continue aggressively pursuing publications, patents and academic collaborations. Projects initiated by these individuals will lead to development of new products for laboratory researchers in the biomedical, biopharmaceutical, environmental and food science industries, and for clinicians operating in hospitals, clinics, and physicians' offices.

Positions are open for Ph.D. level researchers with several years of post-doctoral experience in the following areas:

- Biophysical Chemistry
- Physical Biochemistry
- Polymerase Biochemistry
- Oligonucleotide Chemistry
- RNA Biochemistry
- RNA Molecular Biology
- RNA Cell Biology

Hewlett-Packard Company offers a competitive salary and benefits package. To apply for these Palo Alto, California openings, please send your CV to: Hewlett-Packard Employment Response Center, Attn: Ad #4066/46419, MS20AZ, 3000 Hanover Street, Palo Alto, CA 94304-1181, fax (415) 852-8138, or e-mail to: elaine_yamani@hp2200.desk.hp.com Hewlett-Packard Company is an equal opportunity employer dedicated to affirmative action and work force diversity.

Peptor is a young, dynamic biotechnology company focused on the development of peptide-mimetic therapeutics through innovative concepts in peptide chemistry and rational drug design. Through the use of a proprietary, peptide cyclization technology, and a highly multidisciplinary team of scientists, we plan to introduce drugs that treat cancers as well as autoimmune and degenerative disorders. We are seeking creative scientists (M.S. through Ph.D. levels) in the following departments:

- Peptide Chemistry
  - Experience in organic synthesis.
  - Ability to design and implement novel research programs in the area of peptide synthesis.
- Molecular Modeling
  - Strong chemical/biological background, as well as broad experience in molecular modeling.
  - Ability to design and implement new algorithms.

Please submit application, including a list of publications and two references, to:
Peptor Ltd.
Kiryat Weizmann
Rehovot 76326
Israel
or
Fax: 972-8-940-7737
STRATAGENE is one of San Diego's largest and most stable life science research companies. With about 225 employees, the company provides significant advancement opportunities. Stratagene is located in scenic La Jolla, in close proximity to UCSD, The Salk Institute, and The Scripps Research Institute, within minutes of the Pacific Ocean and Torrey Pines State Park. Our long track record of profitability has also created a financially independent and secure organization, unlike that of many early stage biotechnology companies.

R&D STAFF SCIENTIST
Qualified candidates will possess a Ph.D. and at least 2 years of postdoctoral experience with expertise in library construction and screening, genomics, virology, vector construction and eukaryotic molecular genetics. Experience with gene transfer and vector systems is important. We are looking for excellent technology development skills. No. 21028-96RS

R&D STAFF SCIENTIST
Qualified candidates will possess a Ph.D. and at least 1 year of postdoctoral experience or equivalent or at least 8 years of relevant laboratory experience with demonstrated ability in cell culture, mammalian transfection techniques and RT-PCR primer design. No. 21024-96RS

POSTDOCTORAL SCIENTIST
Qualified candidates will possess a Ph.D. in Molecular Biology or biochemistry, extensive experience in sequencing nucleic acids and excellent quantitative skills. An understanding of physical chemistry is highly desirable. Project work is located in Washington, D.C., in collaboration with the Naval Research Laboratory. No. 21060-95A

PRODUCTION ASSOCIATE
Qualified candidates will possess a B.S. or M.S. in Biological Sciences or equivalent with 3-4 years of laboratory experience in molecular biology. Laboratory experience in RNA and DNA isolation, cloning and cDNA/genomic library construction is required and a background in gene expression, lambda phage, plasmids, and filamentous phage is preferred. Nos. 32033-96R & 32034-96R

RESEARCH ASSOCIATE
Qualified candidates will possess a B.S. in Microbiology, Molecular Biology or Biochemistry or equivalent and 2-3 years of laboratory experience. Job duties may include nucleic acid isolation and purification, radioactive and non-radioactive nucleic acid labeling, PCR, DNA sequencing, and northern and Southern hybridization. Experience cloning nucleic acids is preferred. Nos. 21029-95A & 21037-96A

SENIOR RESEARCH ASSISTANT
Qualified candidates will possess a B.S. in Molecular Biology or equivalent and relevant laboratory experience. Courses in molecular biology and genetics are essential. Good written and verbal communication skills are required. Exciting entry-level position for Genetic Systems research group. Diverse projects include PCR applications and construction and characterizations of vectors and hosts. No. 31001-96A

Stratagene offers an attractive salary and benefits package commensurate with your experience and qualifications. For consideration, please send your resume, referencing the appropriate job number, to: Stratagene, 11011 N. Torrey Pines Rd., La Jolla, CA 92037. Attn: Professional Staffing/No. ___ Principals only. Stratagene is an Equal Opportunity Employer.
MOLECULAR CYTOGENETICS
CORE FACILITY DIRECTOR

A research track faculty position is available through the Huntsman Cancer Center at the University of Utah Health Sciences Center. The primary responsibility for the successful candidate will be the direction of operations of a core service laboratory that provides state-of-the-art molecular cytogenetic techniques to investigators. Resources will also be available to support the development of an independent research program. Individuals with a background in human genetics, cancer, mapping and imaging technologies will be given priority. Applicants are expected to have completed a minimum of two years of a postdoctoral fellowship in a related area, and to show potential for the generation of extramural research support. Please send curriculum vitae, a one-page research statement, and the names of three references to:

Arthur R. Brothman, Ph.D.
Departments of Pediatrics and Human Genetics
1C204 SOM
University of Utah Health Sciences Center
Salt Lake City, UT 84132

The University of Utah is an EEO/AA employer and encourages applications from women and minorities.

AWARDS

The AAAS International Scientific Cooperation Award, presented at the AAAS Annual Meeting in February 1997 in Seattle, Washington, is given to an individual or small group working together in the scientific or engineering community who makes outstanding contributions to further international cooperation in science or engineering. The award is open to all regardless of nationality or citizenship. Nominees must be living at the time of their nomination. The recipient receives US $2500 award, a commemorative plaque, complimentary registration, and reimbursement for reasonable travel and hotel expenses. Nominations should be typed and include the following information: nominator’s name, address, phone number; nominee’s name and title, institutional affiliation, address, phone number; two letters of support; curriculum vitae (3 page maximum); a summary statement of actions that forms the basis for the nomination (250 words); a longer detailed statement of the actions for which the candidate is nominated; any documentation (books, articles, or other materials) illuminating the significance of the nominee’s achievement may also be submitted. All materials become the property of AAAS. Completed nominations should be submitted to: Awards Coordinator, Development Office, American Association for the Advancement of Science, 1200 New York Avenue, N.W., Washington, D.C. 20005, U.S.A. FAX: (202) 789-2008. All materials must be received by August 1, 1996.

JUST ADDED TO SCIENCE’S 1996 EDITORIAL CALENDAR...

Career Opportunities in Bioinformatics

12 July

SCIENCE is pleased to announce a special editorial feature on “Career Opportunities in Bioinformatics” in the 12 July issue. Don’t miss this opportunity to place your recruitment message and reach scientists with bioinformatics experience. Benefits of running an ad in this issue include:

- A “Bioinformatics” banner to highlight your organization’s career opportunities.
- A directory listing all bioinformatics advertisers.
- Placement on SCIENCE’s Internet site for two weeks at no additional charge.

For more information, or to reserve space, please call:
US: Janis Crowley, phone: (202) 326-6532; fax: (202) 289-6742.
Europe: Debbie Cummings, phone: +44 (0) 1223 302067; fax: +44 (0) 1223 576208.

http://www.sciencemag.org
HTS RESEARCH ASSOCIATE
Neurogen Corporation, a rapidly growing biopharmaceutical company focusing on the development of therapeutics for neuropsychiatric disorders, is expanding its staff in high throughput screening.

Neurogen is currently seeking a highly motivated person to fill a Research Associate position. Candidates should have either a B.S. or M.S. in biological sciences with at least 2 years of academic or industrial lab experience. Experience in recombinant DNA techniques, including gene isolation, cloning, transfections, and PCR, is essential. Hands-on experience in development of cell-based reporter assays is preferred.

Neurogen is located in Branford, Connecticut, close to New Haven. We offer a comprehensive salary, equity participation, 401K plan, health and medical programs, as well as relocation assistance.

Qualified candidates are invited to send resumes with cover letter to Personnel Department, P.O. Box 859, Branford, CT 06405-0609.

Neurogen Corporation

POSTDOCTORAL POSITIONS

The Biosciences and Biotechnology Group (CST-4) of the Chemical Sciences and Technology Division invites applications for postdoctoral appointments. Exceptional candidates will be considered for Los Alamos Postdoctoral Fellowships or the highly competitive J. Robert Oppenheimer Fellowship. CST-4 conducts research at the interfaces of biology, chemistry, biochemistry, and physics to solve complex problems in health, the environment, national security, and energy. We use state of the art methods in molecular and optical spectroscopies, time-resolved spectroscopies, NMR spectroscopy, neutron and x-ray scattering, theory and modeling, biochemistry, molecular biology, stable isotope chemistry, and synthesis to address challenging problems in the following areas:

- Stable isotope chemistry (synthesis and bioisotopic labeling of amino acids, proteins and DNA)
- Biochemical regulation and signaling
- Asymmetric synthesis
- Protein folding and protein dynamics
- Inorganic photochemistry and photophysics
- Bioorganic chemistry of oxygen activation and electron transfer
- Inorganic and toxic metal chemistry in the environment
- Materials chemistry in support of sensor development
- Biodegradation of reluctant organic compounds
- Computational modeling of mechanical properties of tissues and the human body
- Vibrational spectroscopies (ultrafast, sum-frequency generation, Raman imaging)
- Multidimensional optical spectroscopy - optical analogs of NMR
- Environmental diagnostics using molecular spectroscopy tools and sensors
- Organic, bioorganic, and inorganic structural determination by NMR and neutron and X-ray scattering

AThD. in Chemistry, Biochemistry, Molecular Biology, Biophysics, or related area within the last three years or soon to be completed is required. Annual salary ranges from $42,740 to $46,180, plus a generous comprehensive benefits package. For consideration, submit two copies of a curriculum vitae, publications list, and the names and addresses of 3 references to: Postdoctoral Programs, PD96052, MS P290, Los Alamos National Laboratory, Los Alamos, New Mexico, 87545. For more information about the Laboratory’s Postdoctoral Program and our division, access http://www.lanl.gov/icts/postdoc and http://nwnl salarié/lanl/po/CST-4_postdoc.html. The Laboratory is an Equal Opportunity Employer. Individuals with disabilities needing reasonable accommodation should call (505) 667-8822. A TDD is available by calling (505) 665-5357. Los Alamos National Laboratory is operated by the University of California for the U.S. Department of Energy.
POSTDOCTORAL FELLOW positions available August 1996 in the molecular neurobiology of crucetica and the molecular neurophysiology of olfaction. Training opportunities include recombinant DNA, biochemistry, digital imaging, and electrophysiology. Please submit a letter of interest, a research statement, curriculum vitae, and names of references to: Dr. Timothy S. McClintock, Department of Physiology, University of Kentucky College of Medicine, 800 Rose Street, Lexington, KY 40536-0884. FAX: 606-223-1070; Email: mcclint@pop.uky.edu. An Equal Opportunity/Affirmative Action Employer.

HARVARD MEDICAL SCHOOL

TWO POSTDOCTORAL RESEARCH FELLOW positions available in the Laboratory for Membrane Transport to work on two different projects: Project 1 concerns the molecular mechanisms of action of new cytostatic drugs under evaluation for treatment of cancer and other proliferative diseases. Studies include the effect of the drugs on cell cycle regulation, early mitogenic signals, protein synthesis, and the functional and chemical characterization of the drug receptors. Project 2 concerns the membrane attack complex (MAC) of complement. Students will understand the molecular interaction of MAC with homologous restriction proteins and developing new uses of the MAC. Applicants must have an M.D., a Ph.D., or the equivalent. Experience in biochemical techniques and protein chemistry is desirable. Send curriculum vitae, statement of research experience/interests, and names of three references to: Jose A. Halperin, M.D., Lab. for Membrane Transport, Harvard Medical School, 240 Longwood Avenue, C1-607, Boston, MA 02115. Email: jhalperi@warren.med.harvard.edu.

POSTDOCTORAL FELLOW or RESEARCH ASSOCIATE position is available immediately. The project involves cloning of defense genes from Brassica napus, and analysis of plant/pathogen interactions utilizing constitutive and reporter-gene constructs in transgenic plants. Applicants must have a Ph.D. in plant biology, biochemistry, or related field. Send curriculum vitae to: Dr. Brian Fristensky, Department of Plant Science, University of Manitoba, Winnipeg, Manitoba R3T 2N2 Canada. Phone: 204-474-6321; FAX: 204-474-6974. E-mail: frist@cc.umanitoba.ca. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal people, and persons with disabilities. The University offers a smoke-free working environment, set for specially designated areas. This advertisement is directed to Canadian citizens and permanent residents.

MOLECULAR IMMUNOLOGY

A POSTDOCTORAL POSITION is available immediately to study hormonal control of cytokine gene expression in T lymphocytes. This NIH-funded position will emphasize interferon-gamma promoter analysis using gel shift assays and reporter constructs. A molecular biology background is essential; an immunology background is desirable. Send curriculum vitae, a statement of research interests, and the names of three references to: Dr. Coen E. Hayes, Department of Biochemistry, University of Wisconsin, 420 Henry Mall, Madison, WI 53706.
Molecular Genetics of Drug Abuse

Tenure Track Position available to identify gene-gating program to drug abuse. candidates should have genetic and molecular biological experience. Previous work in and laboratory space. Curriculum vitae and bibliography are required.

Position: Tenure Track Position in Molecular Genetics of Drug Abuse

Requirements: PhD, or equivalent, in biological sciences, with a focus on molecular biology, genetics, or a related field. Demonstrated ability to design and conduct research on the molecular basis of drug abuse. Knowledge of relevant bioinformatics tools and software is essential. Excellent written and oral communication skills.

Responsibilities:
- Conduct research on the molecular basis of drug abuse.
- Collaborate with other researchers within the laboratory and across disciplines.
- Publish findings in peer-reviewed journals.
- Participate in graduate and undergraduate teaching.

Salary: Competitive, commensurate with experience. Benefits include health insurance, retirement plan, and professional development opportunities.

Location: Boehringer Ingelheim Corporation

Mannheim, Germany

Deadline: Applications will be accepted until the position is filled. Interviews will be conducted on a rolling basis.

Send applications to:

Dr. S. Peterson, Department of Molecular Genetics
Boehringer Ingelheim Corporation
9125 Hague Road
Indianapolis, IN 46239-0527

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Managerial Research & Development

Position: Senior Manager, Research & Development

Responsibilities:
- Lead a team of research scientists to develop new drugs.
- Manage research projects from concept to clinical trials.
- Collaborate with cross-functional teams to ensure product development.
- Work closely with regulatory agencies to ensure compliance.

Salary: Competitive, commensurate with experience. Benefits include health insurance, retirement plan, and professional development opportunities.

Location: Indianapolis, IN

Deadline: Applications will be accepted until the position is filled. Interviews will be conducted on a rolling basis.

Send applications to:

Dr. J. Smith, Department of Research & Development
Boehringer Ingelheim Corporation
9125 Hague Road
Indianapolis, IN 46239-0527

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HUMAN LIVER FOR SCIENTIFIC INVESTIGATION

NATIONAL INSTITUTE OF DIABETES AND DIGESTIVE AND KIDNEY DISEASES

The Liver Tissue Procurement and Distribution System (LTPADS) is a National Institute of Health (NIH) service contract to provide human liver from regional centers for distribution to scientific investigators throughout the United States. These USA regional centers have active liver transplant programs with human subjects' approval to provide portions of the resected pathologic liver for which the transplant is performed. Therefore frozen or fresh tissues are available from subcontracts for the usual forms of childhood and adult cirrhosis, fulminant liver failure, chronic rejection, and certain inborn errors of metabolism. Human pathologic liver prepared according to the investigator's specifications provides the opportunity to verify if animal liver investigations are relevant to human liver pathophysiology. The preparation of these livers has been excellent for the usual molecular biologic techniques for the past ten years. "Normal" liver specimens may be requested; however, the supply is appropriately much more limited and completion of proposal requests takes a longer time than for most pathologic liver specimens. NIH investigators are given preference for identical specimen requests.

Further information and proposal forms for interested investigators can be obtained from:

Harvey L. Sharp, M.D.
Principal Investigator, LTPADS
c/o Annette Robles
Box 185 UMHC
University of Minnesota Hospitals
Minneapolis, Minnesota 55455
Telephone: (612) 624-1133
Fax: (612) 624-2682

Neuroethologist

The Department of Zoology at Michigan State University is seeking a neuroethologist for a tenure-track position at the rank of assistant professor effective January 1, 1997. We seek an individual who has demonstrated the potential to be a highly productive scholar and effective teacher in our undergraduate and graduate programs. We are interested in candidates whose research interests focus on the neural mediation of behavior. Investigators with postdoctoral experience working with lower vertebrates in areas related to sensory processing, learning/memory, or neural plasticity are particularly encouraged to apply, but all qualified applicants will be considered. We anticipate that the candidate selected will complement current programmatic strengths in both neuroscience and evolutionary ecology. Send curriculum vitae, representative reprints, and three letters of reference to Neuroethologist Search Committee, Department of Zoology, 203 Natural Science Building, Michigan State University, East Lansing, MI 48824-1115. Application deadline is September 15, 1996. Late applicants may be considered. MSU is an affirmative action, equal opportunity institution.
The National Space Biomedical Research Institute (NSBRI) is a new and exciting approach to NASA's conduct of space biomedical research. NASA anticipates that the Institute will lead the nation's space biomedical research effort. Accordingly, NASA will give the NSBRI substantial independence and significant funding to enable it to develop an overall space biomedical research plan for the nation, and to carry out a significant portion of the research identified in that plan.

The individual who will fill this challenging position will have the opportunity to shape the Institute from its inception and will play a prominent role in its ultimate success.

The successful candidate will be a U.S. citizen who: (1) possesses an international reputation in a biomedical research field relevant to space biomedicine, and (2) has proven his or her ability to successfully manage a research program. Prior association with NASA is not required.

To investigate this unique opportunity, please fax or mail your resume in confidence to:

USRA, Division of Space Life Sciences
3600 Bay Area Boulevard
Houston, Texas 77058
Fax: (713) 244-2006

DIRECTOR
National Space Biomedical Research Institute

Universities Space Research Association (USRA), a non-profit association of eighty universities, is organizing the efforts of a consortium of life sciences research institutions which seek to operate the National Space Biomedical Research Institute (NSBRI) to be established by the National Aeronautics and Space Administration (NASA) within the next few months. We are seeking a director for the Institute.

The NSBRI is a new and exciting approach to NASA's conduct of space biomedical research. NASA anticipates that the Institute will lead the nation's space biomedical research effort. Accordingly, NASA will give the NSBRI substantial independence and significant funding to enable it to develop an overall space biomedical research plan for the nation, and to carry out a significant portion of the research identified in that plan.

The individual who will fill this challenging position will have the opportunity to shape the Institute from its inception and will play a prominent role in its ultimate success.

The successful candidate will be a U.S. citizen who: (1) possesses an international reputation in a biomedical research field relevant to space biomedicine, and (2) has proven his or her ability to successfully manage a research program. Prior association with NASA is not required.

To investigate this unique opportunity, please fax or mail your resume in confidence to:

USRA, Division of Space Life Sciences
3600 Bay Area Boulevard
Houston, Texas 77058
Fax: (713) 244-2006
FACULTY OF SCIENCE and ENGINEERING  
DIVISION of BIOLOGICAL SERVICES  
CHAIR OF MOLECULAR BIOLOGY  

Applications are invited for the established Chair of Molecular Biology at the University of Edinburgh, previously held by Professor Sir Kenneth Murray FRS (currently Biogen Research Professor). The University plans to strengthen and expand research in Vertebrate Developmental Biology, and the Professor will be expected to provide leadership for this initiative. The appointee will be located in high grade facilities in the Centre for Genome Research. The Centre is currently funded by the BBSRC to address fundamental questions in mammalian biology, using embryonic stem cell and transgenic approaches. The Professor is expected to develop a strong independent research programme that will complement the research of the Centre.

Candidates should have an outstanding record and excellent future potential in research. The post is tenured and salary will be on the Professorial scale.

Further information can be obtained from the Secretary to the University, or for informal enquiries, telephone Prof W G Hill (+44) (0)131-650-5525, or fax -6556 or Professor A P Bird (-5670) or Dr A G Smith (-5828).

Applications in writing (fourteen copies, except for candidates from overseas who need submit only one copy), including curriculum vitae and giving names and addresses of three referees, should be lodged with

THE SECRETARY TO THE UNIVERSITY,  
THE UNIVERSITY OF EDINBURGH,  
1 ROXBURGH STREET, EDINBURGH EH8 9TB.  
Closing date: 31 July 1996.

Professorship (C3)  
for  
Tumorvirus Immunology (Tumorvirus-Host-Interaction)  
The German Cancer Research Center (DKFZ) and the Faculty of Medicine at the University of Heidelberg will jointly appoint a scientist as head of the Division of Tumorvirus Immunology. Applicants should have outstanding scientific qualifications in the fields of tumorvirus immunology, vaccine development, and/or tumorvirus-host-interaction. Close collaboration with other departments within the Research Program Applied Tumor Virology and other Research Programs of the Center is desired. The position requires "Habilitation" or equivalent scientific achievements. Applications from women are encouraged.

Please send your application with a curriculum vitae, a list of publications, and references by July 31, 1996 to:  
Deutsches Krebsforschungszentrum, Stiftungsvorstand,  
Im Neuenheimer Feld 280, D-69120 Heidelberg, Germany.
IMMUNOLOGY
FACULTY POSITIONS
SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH

Tenure-Track positions at the Assistant or Associate Member levels are available in the Immunology Program at the Sloan-Kettering Institute. Candidates should have the ability to develop a strong, independent research program. The Immunology program has an active faculty whose research interests encompass transplantation, immunogenetics, T lymphocyte development and function, immunochemistry, gene regulation, and tumor immunology and biology. Interactions with faculty in MSKCC including other members of the Immunology Program and with the other programs in the Institute (Molecular Biology; Cell Biology and Genetics; Molecular Pharmacology; and Cellular Biochemistry and Biophysics) are encouraged. Appointment at the Cornell University Graduate School of Medical Sciences is possible. An attractive start-up package will be provided for the investigator to establish or re-establish his/her laboratory.

Applicants should send a Curriculum Vitae, bibliography, statement of research interests and names of three references to:
Dr. Alan Houghton, Chairman, Immunology Program, Box 446, Sloan-Kettering Institute, 1275 York Avenue, New York, NY 10021. EOE/AA

Memorial Sloan-Kettering Cancer Center
THE TIME IS NOW.
The best cancer care. Anywhere.

Quality Biotech Inc. is a leading international biotechnology service company engaged in contract research and biosafety testing for the biopharmaceutical industry. As part of our continued expansion, we have the following openings in our Testing & Research Department.

**Assay Validation Manager**

As Manager of our Assay Validation Group, you will oversee the design and implementation of validation protocols for biological and molecular assays. Responsibilities include the statistical analysis of validation data, preparation of validation reports and interaction with our scientific staff. In addition, you will be involved in the management of technical staff, support of our technical sales effort and interaction with clients and regulatory authorities. A Ph.D. in Virology or Molecular Biology, a solid background in biostatistics, and 3 to 5 years of relevant experience are required. Applicants with advanced degrees in statistics and experience with biological systems will also be considered.

**Senior Scientist**

**Viral Validation**

As a Senior Scientist in our Viral Validation Group, you will be involved with the design and implementation of customized protocols for validation of virus removal and inactivation by biopharmaceutical and blood product manufacturing processes. You will be responsible for the development of mammalian virus assays, the production of virus stocks, and will be involved with a wide variety of purification procedures including chromatography, filtration, and various virus inactivation methods. You should have experience in virology, cell culture, and standard protein purification methods. A Ph.D. in Virology, Microbiology, Cell Biology or Molecular Biology and postdoctoral training are required. Supervisory experience is a plus.

Quality Biotech Inc. is located in the Greater Philadelphia region - an area rich in scientific, cultural and recreational diversity. We offer excellent opportunities for professional growth, a competitive salary, relocation assistance, health benefits and a 401(k) plan. Send resume and salary requirements to: Quality Biotech Inc., Human Resources - SAVS5696, 1667 Davis St., Camden, NJ 08104. FAX (609) 542-8078. EOE.

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**Protein Chemist**

NeoRx Corporation, a Seattle-based, publicly held biotechnology company develops targeted biopharmaceuticals to treat cancer and cardiovascular disease.

We are currently seeking an innovative, experienced scientist to contribute to NeoRx's research and development projects by initiating, designing, and executing scientific research in the areas of protein isolation, purification, and characterization including scale-up and cGMP manufacturing.

The successful candidate must have a record of accomplishment in:
- Developing procedures for the isolation, refolding, and purification of proteins produced in various protein expression systems including prokaryotic and eukaryotic cell lines, plants, insects, and transgenic animals.
- Biochemical characterization of purified proteins using state of the art analytical procedures.
- Scale-up, process development, and cGMP manufacturing of clinical grade materials.
- Production of proteins using bacteria, yeast, mammalian, and insect cell lines.

The successful candidate will have a Ph.D. in biochemistry with 2-4 years' related experience, or 9-10 years' industry experience with a BS or MS degree. Record of accomplishment with examples of projects completed, impact on company, and innovations incorporated. Relevant research and development experience with pharmaceutical company is most desirable.

Interested candidates are invited to forward their resume with a cover letter, in strict confidence, to: Denise Carlson, NeoRx Corporation, 410 West Harrison Street, Seattle, WA 98119. NeoRx is an equal opportunity employer.
ASSISTANT TO EDITOR

GENETICS

This person oversee production of the journal GE- NETICS, ensuring that final copy conforms to standards and that the pre-established publication schedule is met. Strong editorial and communications skills, background in life sciences, and publications experience required. Send résumé and three letters of recommendation to: Editor designate Dr. Elizabeth W. Jones, Mellon Institute, Box 65, Carnegie Mellon University, 4400 Fifth Avenue, Pittsburgh, PA 15213. Phone: 412-386-7129, An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL FELLOWSHIPS

Molecular Basis of Vascular Disease

POSTDOCTORAL FELLOWSHIPS are available for the study of the molecular basis of vascular disease. Dr. John P. Roberts Research Institute, London, Ontario, Canada. Areas of research include: the role of growth factors and growth factor receptors in vascular smooth muscle proliferation; metabolic and mechanical stressors on smooth muscle; cell–matrix interactions; smooth muscle cell–extracellular matrix interactions; endothelial cell proliferation and differentiation; the role of cytokines and chemokines in vascular inflammation; and inhibition of vascular smooth muscle systems in vascular regulation; and the molecular mechanisms of hypertension. The Institute is located at The University of Western Ontario and houses over 40 internationally recognized scientists conducting cutting-edge research in areas ranging from vascular disease to transplantation biology. Annual salary will range from $30,000 to $43,000, depending on previous experience. Candidates possessing an M.D. and/or equivalent degree are encouraged to apply. Send curriculum vitae and three references to: Dr. John P. Roberts Research Institute, P.O. Box 5015, 100 Perth Drive, London, Ontario N6A 5K8 Canada. Email: john.rob@uwo.ca; FAX: 519-663-3799; URL: http://www.rii.rii.ca/opp/

RESEARCH ASSOCIATES

University of California and Veterans Administration Medical Center (VAMC), San Francisco, has two positions available immediately for individuals with qualifications to join a group studying the role of vitamin D and retinoids on growth and differentiation of normal and transformed keratinocytes and breast cancer cells. Applicants should have a Ph.D. in the biological sciences and be experienced with cellular and molecular techniques applicable to studies of steroid hormone action. Specific experience with keratinocytes and breast cancer cells is desired but not required. Please send curriculum vitae and three references to: Dr. Daniel Bkle, M.D., Ph.D., Department of Medicine, VAMC (111N), 4150 Clement Street, San Francisco, CA 94112.

FELLOWSHIP—Research in integrative cardiac physiology/pharmacology in the experimental research laboratory, University of Louisville, to study the mechanisms of injury to the myocardium and the role of the renin-angiotensin system in hypertension, emphasizing myocardial stunning, preconditioning, and hibernation. Also includes gene therapy and pre-clinical testing of new devices/therapies. Fellow will work under Dr. Roberta Bolli. Submit curriculum vitae, letter of introduction, and three references to: Roberta Bolli, M.D., University of Louisville, ACR Third Floor, 4050 South Jackson Street, Louisville, KY 40292.

POSTDOCTORAL POSITION: NIH-supported postdoctoral position available to study the intracellular trafficking of membrane proteins in epithelial cells. Applicants with a strong background in cell biology, molecular biology, or biochemistry are encouraged to apply. Please send curriculum vitae and three letters of recommendation to: James E. Casanova, Ph.D., Pediatric GI Unit, Massachusetts General Hospital East, 149 13th Street, Charlestown, MA 02129. FAX: 617-726-4172.

POSTDOCTORAL POSITION: available immediately to study cellular and molecular mechanisms by which the microenvironment of neuronal axons and dendrites are established. Previous experience in cytoskeleton or cellular neuroscience is required. Send curriculum vitae and three letters of reference to: Dr. Peter W. Baas, Department of Anatomy, University of Wisconsin Medical School, 1300 University Avenue, Madison, WI 53706. Email: pwbas@facstaff.wisc.edu.

DISTRIBUTING RESEARCHER

IN RESIDENCE

Mountain Research Center (MRC)

One-to-three month FELLOWSHIP is available for an internationally recognized scholar to conduct research bearing on any topic in the natural sciences, with an emphasis on synthesis, size, and disseminate knowledge on the natural and/or interrelated cultural factors influencing the future of montane ecosystems. Responsibilities: research encompassing multiple disciplines (i.e., vegetation, soils, wildlife, hydrology, forestry, etc.) to apply. Stipend up to $5000/month for three months (commensurate with experience), plus relocation and housing allowance. Accepting applications for spring 1997, September 1997, spring 1998. Submit curriculum vitae letter explaining research interests and what you hope to accomplish with the fellowship, and contact information for three references to: Distinguished Researcher Coordinator, Mountain Research Center, Box 173495, Montana State University, Bozeman, MT 59717-3490. Screening begins August 1, 1996 and continues until candidates are chosen. http://www.mrc.montana.edu for detailed job listing. ADA/Equal Opportunity/Affirmative Action/Veterans Preference.

NEUROVIOLOGY

A position is available for a POSTDOCTORAL FELLOW (U.S. citizen, permanent resident, or non-U.S. citizen) who has a Ph.D. in molecular biology, experience in molecular biology in the area of disease, and previous experience in neuronal morphology and function. The successful candidate will contribute to a project investigating the role of calcium and calmodulin in neuronal function. Send curriculum vitae, letter of introduction, and three letters of reference to: Dr. John S. Mitchell, University of California, San Francisco, CA 94143. Equal Opportunity Employer.

UNIVERSITY OF CALIFORNIA

SAN FRANCISCO

Division of Nephrology and Biomedical Sciences Program

POSTDOCTORAL position available immediately for individuals with interest in mechanisms of transcriptional regulation by steroid receptors. Background in molecular biology and genetic techniques is essential. Experience in identification of target genes and characterization of steroid receptor action in vitro and in vivo. Excellent environment, salary, and benefits. Send curriculum vitae to: Dr. David Pearce, Box 1341, UCSF, San Francisco, CA 94143. Email: david Pearce@quickmail.ucsf.edu.

RESEARCH ASSOCIATE/POSTDOCTORAL

For molecular studies of regulation of cytokine, prostaglandin, and nitric oxide production in cell lines and primary cultures. Requires experience with quantitative mRNA analysis, RT-PCR, nuclear protease assays, nuclear run-on, EMSA, and affinity purification of functional cell culture and animal models of focal cerebral hypoxia-ischemia or with cultures of synovocytes and models of arthritts x said to the NIH-supported salary of up to $30,796 and 51% funding is available. Send curriculum vitae plus names and telephone numbers of three references to: Personnel, New York State Institute for Basic Research in Developmental Disabilities, 1050 Forest Hill Road, Staten Island, NY 10314. Reference number 3088.

POSTDOCTORAL POSITION: available to study the mechanism of transmembrane signal transduction and cellular responses in memory and antigen-reactive T-cells. Experience with recombinant DNA technology, cell biology, and signal transduction is advantageous. Send curriculum vitae and names of three references (plus addresses and telephone numbers) to: Dr. Robert F. Todd, Division of Hematology/Oncology, 3119 Taubman Center, University of Michigan Hospital, Ann Arbor, MI 48109-0374.

POSTDOCTORAL POSITION

TBP and TAF

Structure-Function Studies

An NIH-funded POSTDOCTORAL POSITION is available to examine the role of the TATA-Box Binding Protein TBP and its associated factors (TAFs) in transcription initiation with Dr. James E. Beach (see J. Biol. Chem., 269:23315; 269:2835; Proc. Natl. Acad. Sci. USA, 92:8224; Biochemistry, 34:8005). We are currently using a combination of biochemical, genetic, and biophysical methods to study the interactions of these proteins with TBP, DNA, and other transcription factors. Interested parties should send a curriculum vitae and three letters of reference directed to: Dr. Tony Weil, Department of Molecular and Cell Biology and Biophysics, Vanderbilt University, School of Medicine, Nashville, TN 37232-8165. FAX: 615-343-7356. Email: tony weil@mcmail.vanderbilt.edu.

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RESEARCH POSITIONS

The Immunohematology/Immunohistochemistry Research Program of the Blood Research Institute seeks qualified individuals (M.D., Ph.D., M.D./Ph.D.) with research interests in vascular biology plus experience/proficiency in protein chemistry, molecular biology, or cell biology. Candidates for postdoctoral positions training in cell biology or in immunohistochemistry will be considered. Interested applicants should submit a letter of interest and three letters of recommendation. Please send resume and references to: Peter J. Sims, M.D., Ph.D., Associate Director, The Blood Center of Southeastern Wisconsin P.O. Box 2178 Milwaukee, WI 53201-2178 Equal Opportunity Employer.

POSTDOCTORAL POSITION

DISTICTOSTYLET CYTOSKELETON

A variety of projects are available for a POSTDOCTORAL scientist interested in the cytoskeleton. Projects include mutagenesis of actin binding proteins, characterization of kinase-like proteins, and genetic and biochemical approaches to interactions between cytoskeletal components. The candidate should be competent in recombinant DNA and protein purification methods. Familiarity with one or more of the following would be advantageous: Dictyostelium, yeast, biochemistry of actin or tubulin, fluorescence microscopy. Competitive salary for one to two years. More information available at URL: http://www-mrc.mcm.edu/~hostos/. Interested applicants should send a resume to: Dr. L. de Hostos, Department of Biochemistry and Cell Biology, MS 140, Rice University, 6100 South Main Street, Houston, TX 77005-1892, U.S.A. Rice University is an Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL ASSOCIATE

Fox Chase Cancer Center, an NCI-designated Comprehensive Cancer Center, is seeking a POSTDOCTORAL ASSOCIATE to study the importance of drug induced modulation of thalidomide (with emphasis on glutathione) on gene expression in model systems. Backgrounds in molecular biology or pharmacology will be an asset. Interested individuals would be offered an academic position. Interested candidates please send resume to: Dr. Kenneth Tew, Ph.D., Chairman, Pharmacology, The Fox Chase Cancer Center, e/o Human Resources, 7701 Burholme Avenue, Philadelphia, PA 19111. Telephone: 215-728-3137. Equal Opportunity Employer.

ENHANCED POSTDOCTORAL POSITION

Opportunity for Ph.D. with proven experience in molecular biology and cell biology to join an extremely well-funded group investigating the molecular basis of cardiopulmonary signal transduction using transgenic mice that carries an extremely well-funded group investigating the molecular basis of cardiopulmonary signal transduction using transgenic mice. Position provides a dedicated full-time technician and an excellent research facility that carries out injections, clamps, animal care, etc. Excellent salary and benefits. Potential for advancement to faculty status. Send curriculum vitae and three letters of recommendation to: Dr. Stephen B. Liggitt, University of Cincinnati Medical Center, 231 Bethesda Avenue, Room 7511 MSB, Cincinnati, OH 45267-0564.
NEUROSCIEN TIST FOR THE NUN STUDY

The Nun Study, a longitudinal study on aging and Alzheimer's disease, is recruiting a POSTDOCTORAL scholar with strong neurohistological and neuropathological skills, and training or experience in morphological and molecular biology of the central nervous system. The successful candidate will work with an epidemiologist (David A. Snowdon, Ph.D.) and a neuropathologist (William R. Markesbery, M.D.) in the analysis of autopsied normal and Alzheimer's research environment.

Current interests of the NIH-funded staff include: generation and function of T cell subsets, innate and acquired immunity to infectious diseases, antigen processing and presentation, and regulation of somatic mutation in the antibody response.

A competitive salary and fringe benefits are offered. Please send your curriculum vitae and a brief description of your research experience and interest in Alzheimer's disease to:

Dr. Brian J. Rogers, Ph.D., Trudeau Institute, Inc., P.O. Box 59, Saranac Lake, NY 12983.

POSTDOCTORAL POSITIONS

POSTDOCTORAL POSITIONS available immediately at the National Institutes of Health (NIH), National Heart, Lung, and Blood Institute (NHLBI), National Institute on Aging (NIA), and the National Institute for Environmental Health Sciences (NIEHS) for laboratory research in the areas of: Alzheimer's disease, aging, and cardiovascular disease.

Eligibility:

- Must have a Ph.D., M.D., or equivalent degree.
- Must have at least one year of postdoctoral experience in the field of biomedical research.
- Must demonstrate a strong record of scientific accomplishment.

Please send your curriculum vitae and a brief description of your research interests to:

Dr. Anthony J. Lefkowitz, NIA, National Institutes of Health, Building 31, Room 3A10, MSC 7050, Bethesda, MD 20892-7050, or email: lefkowiak@nia.nih.gov

Postdoctoral Positions

POSTDOCTORAL POSITION

Vanderbilt University

A POSTDOCTORAL position is available in Immunology to study somatic hypermutation of antibody genes using modern techniques in molecular biology and biophysics. Experience in molecular biology and/or biophysics is preferred. Please send the curriculum vitae and names of three references to:

Dr. Emily F. Ward, Department of Microbiology and Immunology, Vanderbilt University, 1211 21st Avenue South, Nashville, TN 37232-8756. E-mail: ward@vanderbilt.edu

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