**Positions Open**

### Position Wanted

**Biologist, M.S. Computer Scientist, M.S. Recent degree in biology, 8 years of professional experience in scientific programming. Background in artificial intelligence, programming language semantics, developmental genetics, and chromosome dynamics. Interest in biological and molecular aspects of research. Required: M.S. in computer science, or Ph.D. in biology. Will consider candidates with more than 8 years of experience. Send résumé and letter of recommendation to Box 129, SCIENCE.**

**Biostatistician/Computer Scientist, clinical trials, medical decision-making, mathematical models, experimental design, grant preparation/administration, 70+ publications. Scholarships available to domestic or non-domestic students. Available position Texas or Northwest. Box 129, SCIENCE.**

### Positions Open

**Assistant Professor/SLSTP Program Director**

An assistant professor position is open at Florida A&M University (FAMU) in the NASA-sponsored Space Life Sciences Training Program (SLSTP). Duties include serving as a Program Director in conducting the day-to-day operations of the SLSTP, which is located in the Kennedy Space Center. An applicant must possess a Ph.D. degree in life sciences or related area and some experience in teaching and research at a college or university. Please submit a detailed curriculum vitae and three letters of recommendation before September 30th, 1989.

**Assistant Professor, Molecular Biology**

The Department of Biology and Immunology invites applications for a tenure-track assistant professor position. Minimum requirements for the position include a Ph.D. or M.D. and no less than 2 years of postdoctoral experience. Establishment of an independent research program funded by extramural support is expected, as is participation in the education of both medical and graduate students in the department. Applications are invited from individuals whose research interests fall within the areas of immunology, immunology, and molecular biology. Interested candidates are encouraged to visit the FAMU/SLSTP website at <http://www.famu.edu> for more information.

**Assistant Professor, Biochemistry**

The Department of Chemistry at The University of Texas at Austin solicits applications for a tenured assistant professor position, beginning Fall 1990. The department is interested in candidates who can make significant contributions to the area of biochemistry and molecular biology. Applicants should have a strong background in biochemistry and molecular biology, and experience in teaching and research. The successful candidate will be expected to develop an active research program and to contribute to the teaching mission of the department. Applications should include a letter of application, a curriculum vitae, and three letters of recommendation. Position available immediately. Send applications to: Committee, Department of Chemistry, The University of Texas at Austin, Austin, TX 78712. Equal Opportunity/Affirmative Action Employer.

**Assistant Professor—Biochemistry**

Seek tenure-track faculty member starting August 1990. Requires Ph.D., subsequent postdoctoral experience is preferred. Will be expected to establish a vigorous program of research related to biochemistry. Experience in the application of NMR to biochemical problems would be welcomed. Applications, including a complete résumé, a brief description of research plans, and three letters of recommendation should be sent by 15 October 1989 to: Professor John C. Gilbert, Chairman, Department of Chemistry, The University of Texas at Austin, Austin, TX 78712. Equal Opportunity/Affirmative Action Employer.

**Assistant Professor, Cellular and Developmental Biology (CDB)**

The Department of Cellular and Developmental Biology is recruiting faculty. Applicants should be active in research, have a Ph.D. and a minimum of 3 years of postdoctoral experience. The successful candidate will be expected to establish an independent and vigorous research program. Applicants should provide a letter of interest, curriculum vitae, and three letters of recommendation. Applications are due by 15 October 1989 to: Professor John C. Gilbert, Chairman, Department of Chemistry, The University of Texas at Austin, Austin, TX 78712. Equal Opportunity/Affirmative Action Employer.
ASSISTANT PROFESSOR DEVELOPMENTAL OR EVOLUTIONARY BIOLOGY UNIVERSITY OF MINNESOTA The Department of Plant Biology invites applications for a tenure-track assistant professor position beginning 16 September 1990. We especially encourage applications from minority sources.

The successful candidate will be expected to develop a strong independent research program in evolutionary or developmental biology, and to participate in undergraduate and graduate education. Minimum qualifications for the candidate is a Ph.D. in plant biology or related field. Preliminary applications will be considered after two years of postdoctoral research experience by the starting date is strongly preferred.

Applicants should submit curriculum vitae, a two-page statement of research and teaching interests, one or more representative publication(s), and three letters of reference sent by 16 October 1989 to:

Dr. Mark Breuer
Department of Plant Biology
220 BioScience Center
University of Minnesota
Minneapolis, MN 55415
Telephone: 612-626-1234
FAX: 612-626-5784

The University of Minnesota is an Equal Opportunity Educator and Employer and specifically invites and encourages applications from women and minorities.

ASSISTANT OR ASSOCIATE ADJUNCT PROFESSOR: The University of California, Davis School of Medicine, in the Department of Pediatrics has an opening for an assistant or associate adjunct professor who has a specific interest in the field of pediatric neurology. Applicants must be board eligible in neurology. The successful candidate will be expected to establish an independent research program. The position is available as of 1 July 1990. Curricula vitae, publication lists, and three letters of reference should be submitted by 15 January 1990 to:

Professor Charles A. Davis, Chief, Division of Neurology
University of California, Davis School of Medicine
5200 College Circle
Sacramento, CA 95819

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

DEPARTMENT OF ZOOLOGY UNIVERSITY OF HAWAII AT MANOA ASSISTANT/ASSOCIATE PROFESSOR IN MOLECULAR BIOLOGY We seek an assistant/associate professor in molecular biology with research interests in the biology of nucleic acids, proteins, or lipids. Applicants should have an active research program focusing on basic biological questions at the molecular level such as gene action and regulation, molecular evolution, or adaptive metabolism and have an interest in teaching in the area of molecular biology. We are particularly interested in individuals who enjoy interacting with biologists of diverse backgrounds and whose research will thrive in the unique environment of the Hawaiian archipelago. Position will be available 1 January 1990 or 1 August 1990. Send curriculum vitae, copies of research and teaching experience and philosophy, selected reprints, and the names and addresses of three references to:

Dr. Fred I. Kaminsky, Chairman
Department of Zoology
2538 The Mall, University of Hawaii at Manoa
Honolulu, HI 96822. Deadline of application is 1 October 1989. The University of Hawaii is an Equal Opportunity/Affirmative Action Employer. Women and minorities are encouraged to apply.
BIOTHERMAL SCIENCES: ENDOCINOL- OGEIST—The Reproductive Physiology Laboratory, Department of Biological Sciences at Kent State University is seeking applications for a tenure- track position at the assistant professor level to start 8 January 1989. The position will involve research in a number of endocrinology-related areas, with emphasis on basic and clinical research. The appointee will be expected to develop a research program, to conduct on-going research activities, to seek extramural funding, and to participate in the recruiting and advising graduate students. Applicants should have an active research program, including publications, and have potential for extramural funding. Salary is dependent upon qualifications and experience. The deadline for receipt of applications is 30 September 1989. Submit applica- tions to: Dr. Walter C. Adams, Professor, Chair, Search Committee, Kent State University, Depart- ment of Biological Sciences, Box 22-CHH, Kent, OH 44242.

An Equal Opportunity/Affirmative Action Employer.

CHAIRMAN OF BIOLOGICAL, CHEMISTRY UNIVERSITY OF HEALTH SCIENCES/ THE CHICAGO MEDICAL SCHOOL (UHCS/CMCS)

Applications and nominations are invited for the Chair of the Department of Biological Chemistry. The Chair will report to the Dean of the Medical School and is responsible for coordinating and administrative leadership in research as well as teaching of graduate, postgraduate, and medical students. The Chair will have a strong influence on the magnitude and direction of research within the Department, including the immediate are filling of several faculty vacancies with the possibility of additional positions in the near future. The successful candidate will have strong administrative, national and international reputation for contributions to biochemistry or closely related fields; a demonstrated interest and ability in effective teaching; and the capability to persuade the department's centers to extend the department's strengths in research, teaching, and service.

UHCS/CMCS is a 75-year-old private medical school located in modern new facilities in an elegant suburb north of Chicago. The location combines a suburban environment with the cultural advantages of proximity to a large metropolitan area. Individuals from all subdisci- plines are welcome to respond. Applications should include: curriculum vitae, a summary of current research, copies of publications, a description of teaching and administrative experience, and the names of three or more referees. Mail applications to: Professor Richard Hawkins, Chair of Search Committee, Department of Biological Sciences, UHCS/ CMCS, 3333 Green Bay Road, North Chicago, IL 60064. Telephone: 312-578-3280. 

Affirmative Action/EQUAL OPPORTUNITY EMPLOYER.

CLINICAL/MOLECULAR MICROBIOLOGIST POSITION, Mayo Clinic in the Bacteriology Labora- tory, Department of Laboratory Medicine and Pathology. Incumbent will direct a special area test in the clinical laboratory and will develop applications of molecular biology to clinical diagnostic testing. Applica- tions must have a doctorate (M.D. or Ph.D.), appropriate postgraduate training, and experience with clinical microbiology. Applicants should be familiar with the principles and the techniques of medical microbiology, etiologic diagnosis, and antimicrobial susceptibility testing. Salary is commensurate with experience and qualifications. Interested individuals are invited to send curriculum vitae and three letters of reference to: George C. Klee, M.D., Ph.D., Chairman, Clinical Microbiology Search Committee, Division of Laboratory Medicine, Mayo Clinic, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.

CYTOTHEKGENETICS LABORATORY DIRECTOR—M.D. or Ph.D., ABMG BC/BE, to direct clinical cytogenetics laboratory at Department of Pathology, University of Missouri School of Medicine, Columbia. Excellent opportunity for a well-qualified cytogeneticist. Strong laboratory orientation in methods development and interest/experience in molecular genetics preferred. Tenure-track position. Start November 1989. Send curriculum vitae with reference letters to: John Townsend, M.D., Pathology Department, University of Missouri School of Medicine, Columbia, MO 65212. Affirmative Action/EQUAL OPPORTUNITY EMPLOYER.
POSITIONS OPEN

FACULTY POSITION IN PHARMACOLOGY

A faculty position in pharmacology is available on or before 1 January 1989 at the research assistant professor level. Applicants should have a strong background in biochemical and immunological techniques and experience in culturing mammalian cells. Experience in recombinant DNA techniques and protein purification is preferred. Demonstrable expertise and continuing interest in the study of cell surface receptors for hormones, and growth factors is required. Interested persons should send their curriculum vitae to: Dr. John Perkins, Department of Pharmacology. The University of Texas Southwestern Medical Center at Dallas, 5323 Harry Hines Boulevard, Dallas, TX 75235. An Equal Opportunity Employer.

FACULTY POSITION: MOLECULAR AND CELL BIOLOGY UNIVERSITY OF CALIFORNIA, BERKELEY

The University of California at Berkeley is seeking an immunologist to join the Division of Immunology in the Department of Molecular and Cell Biology. The appointment may be at the level of assistant, associate, or full professor depending on the candidates' experience and achievements. Minimum qualifications include: a Ph.D. and postdoctoral training in immunology or related fields, evidence of independent research in molecular and cellular immunology, and effective communication skills. Duties include participation in graduate and undergraduate instruction in immunology and maintenance of a strong research program to provide training for graduate students and postdoctoral fellows, and involvement in the administration of the newly formed Division of Immunology.

Applications/nominations along with curriculum vitae, statement of research interests and representative reprints, and the names of three references should be sent by 1 September 1989 to: Dr. Marian E. Koshland Chairperson, Search Committee Life Sciences Annex, Box 439 University of California Berkeley, CA 94720

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

FACULTY POSITION: ORGANIC CHEMISTRY The Department of Chemistry at Penn State University has an opening for a tenure-track faculty position starting August 1990. Candidates must possess a doctorate, and subsequent postdoctoral experience is preferred. The appointee must establish a vigorous program of research in any field of organic chemistry. Commitment to excellence in undergraduate and graduate teaching is essential. Application with complete résumé, undergraduate and graduate transcripts, a description of research plans, and three letters of recommendation. Deadline for receipt of applications is 17 October 1989, or until a suitable candidate is identified. Send applications to: Chairman of the Search Committee, Department of Chemistry, 152 Davey Laboratory, Box 2, Penn State University, University Park, PA 16802. An Affirmative Action/Equal Opportunity Employer. Women and minorities are encouraged to apply.

FACULTY POSITIONS IN NEUROBIOLOGY

The Department of Cell Biology and Anatomy of The University of Texas Southwestern Medical Center at Dallas seeks applications for tenure-track positions at the level of assistant, associate, or full professor. Applicants must have a relevant Ph.D. or M.D. degree and appropriate postdoctoral training, and show evidence of firm commitment to a career in independent research. We are particularly interested in considering individuals who wish to apply the techniques of biophysics, electrophysiology, biochemistry, or molecular biology to fundamental problems in cellular neurobiology. Responsibilities will also include teaching of medical and graduate students after the first year of employment. Send curriculum vitae, a brief description of proposed research, and three letters of reference to: A. J. Hudspeth, Ph.D., M.D., Chairman, Department of Cell Biology and Anatomy, 5323 Harry Hines Boulevard, Dallas, TX 75235-9039. An Equal Opportunity/Affirmative Action Employer.

The Biological Process Sciences Department of Smith Kline and French Laboratories (a division of Smith Kline Beecham), is expanding into a new Biopharmaceutical Pilot Plant and is seeking several highly qualified B.S., M.S., and Ph.D. level candidates to fill positions in our Cell Culture, Bioreactor Scale-up, Bioprocesses and Microbial Fermentation groups. We offer both the opportunity and challenge to become an active member of a team of scientists and engineers who research focuses on the development of state-of-the-art processes and technologies for production of Biopharmaceuticals.

Positions are available in the following areas:

The Cell Culture group concentrates on cell physiology, process development in small scale bioreactors, and the development of new cell culture technologies. Candidates with experience in mammalian cell culture, biochemical/analytical techniques, and with high mechanical and electronic aptitudes are encouraged to apply. (H0108)

The Bireactor Scale-up group is responsible for the development of large scale fermentation and cell culture processes, as well as, the implementation of novel process control strategies. We are seeking individuals with cell culture experience, preferably in bioreactors, with an understanding of process control. (H0108)

The Bioprocesses group focuses on development of large scale protein recovery processes and studies new purification technologies. Successful candidates must have a strong background in protein chemistry and experience in protein purification, and/or biochemical or chemical engineering. (H0110)

The Microbial Fermentation group is seeking a postdoctoral fellow. This individual will be involved in the optimization of the production of HIV protein in recombinant E.coli. This scientist will be a member of a multidisciplinary team involved in the structural and functional analysis of the proteins of HIV. The successful candidate must have a Ph.D. in Microbiology, Molecular Biology or a related field and less than three years of postdoctoral experience. Expertise in microbial genetics, physiology, and/or fermentation is highly desirable. (H0111)

Our new, state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge. Smith Kline and French provides a stimulating and challenging work environment with opportunity for professional growth. We offer an attractive compensation and benefits package. For confidential consideration, please forward your resume, indicating appropriate position number, to Nancy Hanson, Smith Kline and French Laboratories, Research & Development, P.O. Box 1539, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer. M/F/H/V.

Sigma Diagnostics, a division of Sigma Chemical Company, is a world renowned manufacturer of diagnostic reagents.

Excellent opportunities exist for innovative researchers in our Clinical R&D Department. We are currently seeking highly knowledgeable and experienced professionals for the following key positions:

MANAGER: IMMUNODIAGNOSTIC REAGENTS

Requires Ph.D. in Biochemistry, Immunology Clinical Chemistry or related fields. One to three years industrial experience in research and development of nonisotopic assay procedures for therapeutic drugs, hormones or antibodies is essential. Supervisory experience and prior experience with assay procedures for drugs of abuse would be helpful.

CHEMIST: IMMUNODIAGNOSTIC REAGENTS

Candidate should have M.S. degree in Biochemistry or related fields with one to two years experience with Immunoassay procedures.

We provide a competitive salary and a full company-paid benefits package. Send your confidential resume and salary history to: Diagnostic Positions (R&D), SIGMA CHEMICAL COMPANY, P.O. Box 14508, St. Louis, MO 63178.
DEAN
College of Natural and Agricultural Sciences
University of California, Riverside

The Dean oversees the Land-Grant mandate in teaching, public service, and research in the College and normally serves as the Director of the Division of Agriculture and Natural Resources (DANR) on the Riverside campus, including the Agricultural Experiment Station. The College has 15 academic departments and research units containing 240 ladder-rank FTE, 30 other academic FTE, and 475 non-academic staff FTE. The annual College/DANR budget is over $30 million. The campus is growing rapidly and is surrounded by a supportive and rapidly growing external citizenry.

Applicants must have a distinguished record of research, teaching and service appropriate to an academic appointment at the level of full professor in the College department of the candidate’s discipline as well as a record of successful leadership and creative management. Salary will be commensurate with experience and qualifications. The negotiable target starting date is July 1, 1990.

A curriculum vitae and the names and addresses of six references are required from each applicant. The search will continue until the position is filled.

The University of California, Riverside is an equal opportunity/affirmative action employer. Women and minorities are encouraged to apply.

Nominations and applications will be reviewed starting October 1, 1989 and should be addressed to:

Professor Irwin P. Ting, Chair
Search Committee for the Dean
Office of the Chancellor
University of California, Riverside
Riverside, CA 92521.

Cell and Molecular Biology
Faculty Position
University of Connecticut School of Medicine

The Department of Microbiology is seeking to fill a tenure-track position, preferably at the rank of assistant or associate professor. We are looking for persons interested in developing a high quality research program applying genetic, biochemical and molecular approaches to a fundamental area of modern biology. Additional responsibilities will include teaching graduate and medical students. The School of Medicine, located in a superb New England setting, offers an intellectually exciting environment and modern support facilities for cell and molecular biological research.

Applicants should have a doctoral degree and at least two years of postdoctoral experience. The application should include a description of future research plans, copies of the candidate’s most significant publications, and the names of at least three individuals willing to write letters of recommendation. It should be addressed to: The Search Committee, Department of Microbiology L 2034, University of Connecticut School of Medicine, Farmington, CT. 06032. The review of applicants will begin in early October; application deadline is December 1, 1989.

AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER M/W/H
Clinical Research Associates

Where Research Is The Driving Force, There's Never a Shortage Of Exciting New Discoveries.

IMODIUM®, NIZORAL®, SUFENTA®, HISMANAL®, ALFENTA®: These are just some of the important new drugs that have been developed here at Janssen Research Foundation. And we continue to make new discoveries at an extraordinary pace. In fact, we're the world's most prolific discoverer of new therapeutic agents.

We recognize that our success is based upon the vital contribution made by every member of our research team, including our Clinical Research Associates. From writing protocols to training investigators, the work you'll do here as a Janssen CRA is critical.

And you'll be rewarded accordingly.

Working for a member of the Johnson & Johnson Family of Companies, you'll enjoy a competitive salary and a comprehensive benefits package including our on-site total health facility, the Live For Life Wellness Center. And with the frequency with which new discoveries are made here, there's ample opportunity for career advancement.

Biostatisticians, Medical Writers, and professionals in Regulatory Affairs and Professional Services will find rewarding career opportunities here as well. If you're excited at the prospect of working where new discoveries are continually taking place, we invite you to send your resume and salary history to: Janssen Research Foundation, Employment Office, Box S889, 40 Kingsbridge Road, Piscataway, New Jersey 08854. An Equal Opportunity/Affirmative Action Employer M/F/H/V.

JANSSEN RESEARCH FOUNDATION

"Where Research Is The Driving Force"
A Johnson & Johnson Company
Senior Research Scientist

Fenwal, a division of Baxter Healthcare Corporation, is the market leader in the blood collection and separation industry. Fenwal, Santa Ana, is the Division of Fenwal responsible for automating this process. We are looking for a Senior Research Scientist to conduct both fundamental and applied research on blood. The candidate must have a Ph.D. in mechanical engineering, chemical engineering, chemistry or the life sciences. A formal background in hematology and general medical sciences is essential. Experience including a minimum of three years in post doctoral research or industrial research is also required.

Specific areas of research will be directed at understanding the mechanism of anticoagulation as it applies to blood collection and separation and understanding the effects of storage of blood components outside the body.

Applicant must be an individual prepared to make a strong personal commitment to this field. A high level of scientific curiosity uninhibited by convention is a prerequisite.

Qualified individuals should submit a C.V. to: Human Resources, Baxter Healthcare Corporation, Fenwal Division, 2807 Catherine Way, Santa Ana, California 92705. We are an equal opportunity employer m/f/h.

Fenwal Division

Baxter

UNIVERSITY OF COLORADO SCHOOL OF MEDICINE DEPARTMENT OF PHYSIOLOGY FOUR TENURE TRACK POSITIONS

The Department of Physiology at the University of Colorado School of Medicine is undergoing a major expansion. Space and resources are available for four new tenure track faculty, three at the Assistant Professor level, one Associate Professor or Professor. Although applications may be submitted at any time, candidate selection will begin on or about 2 October, 1989.

The present Department has strong research interests in cellular neurobiology, epithelial function, and reproduction. The Department will consider applicants with interests in these or other areas of cellular and molecular physiology, such as endocrinology, developmental biology, muscle physiology and epithelial transport.

The University of Colorado School of Medicine is strongly research-based, with active interdisciplinary programs in molecular biology, cell biology, neurobiology, endocrinology and immunology.

Successful candidates will be expected to conduct a vigorous independent research program and to participate in graduate and professional teaching. Applicants should send a Curriculum Vitae and the names of at least three referees to:

Dr. S.R. Levinson
Chair, Faculty Search Committee
Department of Physiology, G240
University of Colorado Medical School
Denver, CO 80262

The University of Colorado is an Equal Opportunity/Affirmative Action Employer. Minorities and women are especially encouraged to apply.

PROTEIN FOLDING

Post Doctoral Scientist

Smith Kline and French Laboratories (a division of SmithKline Beecham), a worldwide leader in Pharmaceutical Research, has an exciting opportunity for a postdoctoral scientist in its expanding Macromolecular Sciences Department.

The position involves engineering the gene(s) for protein folding factors for expression in E.coli. These systems will be used to investigate effects on correct folding of other gene products in vivo and in vitro.

The selected candidate will have:

- Ph.D. in Chemistry, Biochemistry or Microbiology.
- Experience in microbiology and molecular cloning.
- Additional experience in protein purification and characterization desirable.

Our new, state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge. Smith Kline and French provides a stimulating and challenging work environment with opportunity for professional growth. We offer an attractive compensation and benefits package. For confidential consideration, please forward your resume to: Nancy Hasson, H0107, Smith Kline and French Research & Development, P.O. Box 1530, King of Prussia, PA 19406-0539. We are an Equal Opportunity Employer, M/F/H/V.

SK&F

ANIMAL PRODUCTION PLANNING

T HE JACKSON LABORATORY, located on the coast of Maine on the fringe of Acadia National Park, is a world renowned center and resource for mammalian biology and genetics. We distribute over two million mice yearly.

We have a position open for an Assistant Manager of Production Planning. Major duties include gathering, analyzing and reporting mouse production related information for our breeding facility; making recommendations for new systems and programs in our facility which relate to animal rearing and inventory distribution.

BS in Biological Sciences and AAALAS certification as a Technologist required along with an understanding of basic genetics, animal husbandry and various breeding systems.

This unique opportunity on the coast of Maine at our well known institution offers a competitive salary and excellent benefits. Please contact:

The Jackson Laboratory
Attn: Harold R. Wheeler
Employment Manager
600 Main Street
Bar Harbor, ME 04609
207/288-3371

EOE/Affirmative Action Employer
TOXICOLOGY/PHARMACOLOGY RESEARCH

Battelle, a world leader in contract research and technology development, is expanding in toxicology and pharmacology research, and additional professionals are needed. These positions will be filled by ambitious scientists who will work closely with a multidisciplinary group of talented peers in modern, well-equipped facilities. The specific positions are:

GENERAL TOXICOLOGISTS — Opportunities are available for a toxicologist who has just completed relevant academic training at the PhD level, and a second toxicologist with a PhD and 3 - 6 years of experience in general toxicology. The latter position requires preclinical toxicology experience related to drug safety and/or chemical registration. A thorough working knowledge of GLP and regulatory guidelines is essential.

INHALATION SCIENTIST — Requires a relevant advanced degree and a minimum of 5 years of inhalation laboratory experience in exposure chamber atmosphere generation and monitoring. Applied understanding of test atmosphere generation, delivery and monitoring is required.

INHALATION TOXICOLOGIST — Similar requirements to the Inhalation Scientist, but must have strong toxicological orientation as evidenced by education and experience. Position will emphasize study direction and management of inhalation safety programs.

IMMUNOTOXICOLOGIST — Requires a relevant PhD with 3 - 5 years experience with various in-vivo cellular immunology assays and cytokine assays. Must have demonstrated leadership skills and publications in immunotoxicology or immunopharmacology.

METABOLISM/PHARMACOKINETICS — Requires a relevant PhD and several years of experience conducting pharmacokinetic and metabolism studies in various species. Involves GLP study design, conduct, data interpretation, and supervision of technical staff.

Battelle offers competitive salaries, comprehensive benefits and significant opportunities for professional growth. If interested, send your resume or C.V. to: Richard Shaw, Battelle, Dept. F-3, 505 King Ave., Columbus, OH 43201-2693. An Equal Opportunity/Affirmative Action Employer M/F/H.

Key research appointment for Principal Scientist with Immunopharmacology Department of this new company within The Johnson & Johnson Family.

We're the R.W. Johnson Pharmaceutical Research Institute, a new member of The Johnson & Johnson Family of Companies. Our strategy is to maintain a fast-growing pharmaceutical business by providing a clear focus and direction to managing R&D resources so that we obtain optimum results and provide opportunities for our employees to grow.

The candidate we seek will have a PhD or equivalent in Immunopharmacology or Biochemistry with postdoctoral training and a research background in these fields. You must have experience in establishing novel models to evaluate the action of agents that interfere with the biosynthesis and action of inflammatory or allergic mediators (cytokines, eicosanoids). 2 or more years' experience in industrial pharmacology desired.

You will plan, direct and conduct research to study the biochemistry of cell activation including arachidonic acid metabolism, PLA and signal transduction following receptor-ligand interactions. Excellent written and verbal communication skills are required, as well as interpersonal skills to interact with other scientists and senior staff and effectively advance our drug discovery process. Attendance at scientific meetings and publishing in appropriate journals are encouraged.

We offer a competitive salary and the comprehensive benefits you would expect from a Johnson & Johnson Company including our on-site LIVE FOR LIFE WELLNESS program designed to make you a healthier, happier, and safer person. Please forward resume, including salary history, to: Mrs. Beatrice Allen, Dept. 46, R.W. Johnson Pharmaceutical Research Institute, P.O. Box 300, Raritan, New Jersey 08869-0602.

An Equal Opportunity Employer, M/F
JPL/NASA VISITING SENIOR SCIENTIST

Microgravity Science and Applications Biological Sciences

The Jet Propulsion Laboratory is seeking a senior scientist to lead and coordinate the NASA Microgravity Science and Applications Biological Sciences Program. The position would allow the appointee to bring scientific expertise to bear on the planning, execution and coordination of broad-based programs in biological sciences for ground-based and space-based research. The responsibilities include the coordination of ongoing programs, evaluation of proposals for new efforts and the participation in the overall programmatic planning. Frequent travel and residence in the Washington, DC area will be required. A PhD or equivalent experience and training in biological sciences is required, with emphasis in mammalian cells or solution crystallography desirable. Tenured faculty members are the preferred choice although qualified individuals from nonprofit research institutions may also be considered. This position is open for immediate filling. Normal assignment in the Visiting Senior Scientist Program does not exceed two years. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following the NASA assignment. Please provide Curriculum Vitae, bibliography and names of four references to:

Dr. Harry Ashkenas 180-900
Department T-15
Jet Propulsion Laboratory
4800 Oak Grove Drive
Pasadena, CA 91109
(818) 354-8251

An Equal Opportunity Employer

University of Alberta
Edmonton

Henri M. Toupin Chair in Neurological Sciences

The Divisions of Geriatric Medicine and Neurology in the Department of Medicine invite applications for the newly established Henri M. Toupin endowed Chair in Neurological Sciences. Applicants will be MD scientists or PhDs with defined achievement in the neurological sciences related (but not confined) to the geriatric age group. The successful applicant will be expected to establish and develop research and educational programs to improve the care of patients with neurological problems. The appointment will be at the senior associate professor ($40,810–$50,954) or professor ($52,150 upward) rank plus appropriate market supplement and research supplement along with the privileges and benefits of rank, and will be located at The General Hospital (Grey Nuns) of Edmonton. Applications, complete with curriculum vitae and the names, addresses and telephone numbers of three referees, should be submitted by September 20, 1989 to:

Dr. E. Garner King, Professor and Chairman
Department of Medicine
University of Alberta
2F1 W.C. Mackenzie Centre
Edmonton, Alberta, Canada T6G 2R7

The University of Alberta is committed to the principle of equity in employment.
Faculty Positions in Biochemistry and Molecular Biology
Department of Biochemistry
University of Missouri-Columbia

The Department of Biochemistry at the University of Missouri-Columbia invites applications for four tenure-track positions at the level of Assistant Professor. The Department has excellent programs in the biochemistry and molecular biology of plant and animal cells and provides a stimulating environment for productive research and for training students. Extensive interactions with other departments in the School of Medicine, the College of Agriculture, and the College of Arts and Sciences support interdisciplinary research. Eminence Programs in Molecular Biology and Food for the 21st Century provide funds for research, for core facilities, and for graduate student and postdoctoral training.

Three positions will be in the Medical School. Candidates should have a strong research background in eukaryotic (preferably animal cell) molecular biology and biochemistry. One of these positions will be a joint appointment with the Department of Ophthalmology in the Medical School.

One position will be in the College of Agriculture. Candidates should have a strong research background in vegetable molecular biology or biochemistry. Applicants for any of these positions should provide a curriculum vitae, a description of research experience and interests, and have three letters of reference sent to Dr. Tom J. Gulliford, 321A Chemistry Building, Department of Biochemistry, University of Missouri, Columbia, MO 65211.

Deadline for receipt of applications is October 1, 1989.

The University of Missouri is an Affirmative Action/Equal Opportunity Employer and specifically invites and encourages applications from women and minorities.

Clinical Molecular Geneticist

The Kettering Medical Center (KMC) and the Wright State University School of Medicine (WSUSOM) seek a faculty member who will work with academicians and clinicians to develop a clinical molecular genetics laboratory. The successful applicant will have a Ph.D. or postdoctoral training in molecular genetics and clinical laboratory experience. A joint appointment will be offered in an appropriate Academic Department of the WSUSOM (e.g., Biochemistry, Pathology) and in the Pathology Department at the KMC. Faculty rank and salary will be commensurate with professional experience. Duties include setting up a diagnostic testing service, directing graduate research (Ph.D. and M.D.) in the WSUSOM and the KMC and establishing independently funded research program with emphasis on oncology. The appointee's activities will include the opportunities to collaborate with other faculty members and to participate in the educational program of the WSUSOM and KMC for medical students, graduate residents, residents and practicing physicians. Applicants should send their current curriculum vitae and the names of three (3) references to:

Emil W. Peterson, M.D., Chair
Clinical Molecular Genetics Search Committee
c/o Office of Faculty Affairs
Wright State University School of Medicine
P.O. Box 927
Dayton, Ohio 45401-0927

Applications will be received until the position is filled; applications received prior to October 1, 1989 will be given full consideration. Kettering Medical Center and Wright State University are EEO/AA employers.
POSITIONS OPEN

CORNELL UNIVERSITY: MICROBIOLOGISTS—TWO LM AND EM POSITIONS

Applications are invited for two positions, one at the assistant professor level and one rank open, in the Department of Microbiology, College of Agriculture and Life Sciences, Cornell University. Both positions are tenure-track, 12-month appointments available 1 July 1990. Women and minority candidates are encouraged to apply. Applicants should possess a strong background in prokaryotic genetics and/or molecular biology. Areas of interest include but are not limited to: molecular approaches to environmental microbiology, bacterial photochemistry, terrestrial developmental systems, beneficial plant-bacterial interactions and other aspects of microbial diversity. Qualifications: (i) Ph.D. in microbiology or a closely related field; (ii) postdoctoral research experience; (iii) demonstrated research ability; (iv) interest in graduate and undergraduate education. Please submit letter of application, curriculum vitae, statements of current and future research interests and teaching goals, and arrange to have three letters of reference sent by 15 October 1989 to: Dr. Stephen H. Zinder, Chairman, Search Committee, Department of Microbiology, Stocking Hall, Cornell University, Ithaca, NY 14853. Cornell University is an Equal Opportunity/Affirmative Action Employer.

POSITIONS OPEN

MOLECULAR IMMUNOLOGY ASSOCIATE PROFESSOR

Three postdoctoral positions are available in The Division of Basic Immunology to study the molecular basis of the functions of MHC class I and II molecules and of the recognition of hapten-MHC by hapten-specific cytotoxic T-lymphocytes. Individuals with backgrounds in immunology/biochemistry, cellular immunology, and molecular biology are invited to apply. The candidate will be expected to perform the following duties: (i) to carry out and send current curriculum vitae and three letters of reference to: Dr. Ralph Kubo, or Dr. John H. Freed, National Jewish Center for Immunology and Respiratory Medicine, 1400 Jackson Street, Denver, CO 80206. An Equal Opportunity/Affirmative Action Employer.

MOLECULAR PHARMACOLOGY—POSTDOCTORAL FELLOWSHIPS

Mayo Medical School invites applications for a tenure-track FACULTY POSITION in the Department of Pharmacology, available 1 January 1990. Candidates should have primary interests in pharmacology and be pursuing these interests with the methods of molecular biology. Mayo will provide generous space and start-up funds in addition to an attractive package of salary and benefits. The academic rank will be determined by qualifications; established investigators are also encouraged to apply. Submit curriculum vitae with names and addresses of three or more references to: Stephen Brimmijn, Ph.D., Department of Pharmacology, Mayo Medical School, Rochester, MN 55905. An Equal Opportunity/Affirmative Action Employer.

NEUROGENETICS. The Michigan State University Department of Zoology, in cooperation with the Genetics, Neuroscience, and Cell and Molecular Biology Graduate Programs, announces an ASSISTANT PROFESSOR, tenure-track position in Genetics of the Nervous System to begin 1 September 1990. Teaching responsibilities after the first year will be in introductory genetics and an advanced, specialty course. Development of an active, extramurally funded research program is expected. The Department is particularly interested in women and minority applicants. Applicants should submit curriculum vitae, a statement of present and future research activities, all reprints, and should have four letters of reference sent to: Genetics Search Committee, Department of Zoology, 203 Natural Science Building, Michigan State University, East Lansing, MI 48824—1113. Submit applications by 1 December 1989. An Affirmative Action/EQUAL Opportunity Employer.

POSTDOCTORAL ENZYMATOLOGIST—POSITION AVAILABLE

Postdoctoral position available immediately to conduct laboratory and field studies on biological control, management and ecology of ash whitely. Experience in insect physiology, biochemistry, molecular biology, and genetics is desirable. Send curriculum vitae, transcripts, dissertation abstract, and three letters of reference by 1 September 1989 to: Dr. T. J. R. Ihle, Department of Entomology, University of California, Riverside, CA 92521.

POSITIONS OPEN

PH.D. POSITION IN FLOW CYTOMETRY

The pathology department is seeking an assistant/associate professor with experience in flow cytometry. Responsibilities include the development of clinical applications of flow cytometry/sorting, and supervision of a Flow Cytometry lab equipped with a FacScan and an Epic V. Experience in DNA analysis is desirable but not essential. Development of an independent research program is expected. Send curriculum vitae with three letters of reference to: Arthur H. Tatum, M.D., Ph.D., Director, Immunopathology, Clinical Pathology, SUNY Health Science Center at Syracuse, 770 East Adams Street, Syracuse, NY 13210. Applications will be accepted until the position is filled. Equal Employment Opportunity/Affirmative Action Employer.

PLANT MOLECULAR BIOLOGY/ BIOCHEMISTRY ASSISTANT PROFESSOR

The Department of Biology at the University of Rochester, New York, invites applications for a position on the tenure track at the level of assistant professor. We seek applicants from individuals who utilize the techniques of plant molecular biology/biochemistry in attacking significant problems related to growth, development, or metabolism in plants or algae. The department is now in a period of rapid growth, and an additional position will be housed in modern laboratories. In addition, the Matthaei Botanical Gardens, a unit of Biology, provides excellent facilities, and the Biolo Centre for Greenhouse Botany and Agriculture, in cooperation with the Department of Chemistry, has facilities for oligonucleotide synthesis and molecular graphics; peptide-sequencing facilities are close at hand in the Medical School. The successful candidate will be expected to conduct an active research program and participate in the graduate and undergraduate teaching programs of the department. Applicants should send a current curriculum vitae and brief statement of research plans, and should also request letters of recommendation from three references. Application materials should be addressed to: Chair, Plant Molecular Biology Search Committee, Department of Biology, University of Rochester, Ann Arbor, MI 48109—1048. Evaluation of applications will begin on 15 October 1989 and continue until this position is filled. The University of Michigan is an Affirmative Action/EQUAL Opportunity Employer.

VERSAR, INC., ESM OPERATIONS POPULATION/ECOSYSTEM MODELER BIOSTATISTICIAN

Versar, Inc., a leading environmental consulting company, requires a highly skilled individual in (i) mathematical representation of population and ecosystem dynamics, and (ii) application of statistical principles to the analysis of ecological data. These individuals will have a general understanding of the conceptual basis of systems ecology or statistics and the desire to implement these principles in aquatic, estuarine, and terrestrial environments. Successful applicants must have the ability to work well within a team of ecologists, toxicologists, and fisheries biologists, and must be able to convey ideas clearly and write well. Ph.D. degree is preferred. Please send resume in confidence to: Ms. Glynda Squingins Versar, Inc., ESM Operations 1820 Rand Road Skokie, IL 60076-9200 Telephone: 301—964—9200 Equal Opportunity Employer.

POSTDOCTORAL ASSOCIATE for epilepsy research at Department of Surgery, Yale University School of Medicine. Applications are invited for a postdoctoral position to work on regulatory mechanisms of neuronal gene expression. Responsibilities include developing and applying cloned cDNA expression systems to study mechanism of action of injected peptides. Experience in cloned cDNA expression systems is essential. Send curriculum vitae and references to: Dr. I. J. Taback, Department of Neurology, Yale University School of Medicine, 333 Cedar Street, New Haven, CT 06510. An Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL FELLOWSHIP—The University of Utah Pathology Department has a 2-year postdoctoral fellowship position available. This individual will have opportunity to rotate through the general chemistry, chemical pathology, toxicology, RIA, and drug testing laboratories at ARUP, a national reference clinical laboratory. This individual will be able to select faculty members to work with on research projects. Please contact: Dr. James T. Wu, University of Utah, ARUP, 500 Chipeta Way, Salt Lake City, UT 84108. Telephone: 801—583—2787.

POSTDOCTORAL FELLOWSHIP

Applicants will study a variety of aspects of neurobiology and the role of calcium in cell function, morphology and behavior. Experience in basic experimental neurobiology is required. Send curriculum vitae and brief description of research background and interests to: Dr. J. R. Glickson, Division of NMR Research, The Johns Hopkins Hospital, M&I Room 110, 600 North Wolfe Street, Baltimore, MD 21205.

THE UNIVERSITY OF AUCKLAND, NEW ZEALAND

POSTDOCTORAL FELLOWSHIP IN CHEMICAL KINETICS/CANCER RESEARCH (TWO-YEAR TERM) DEPARTMENT OF CHEMISTRY AND CANCER RESEARCH LABORATORY

Applications are invited for a postdoctoral research fellowship, tenable for 2 years, associated with a study of the kinetics of nitro group reduction in a new class of nitro aromatics which have activity as radiosensitizers of hypoxic tumor cells and as hypoxia-selective cytotoxins. A background in chemical kinetics and an awareness of the concepts of bio-organic chemistry would be preferred. The project will be carried out collaboratively within the Department of Chemistry, the Cancer Research Laboratory and the Section of Oncology, Auckland School of Medicine.

Remuneration is a stipend of NZ$8500 per annum, and an economy round-trip airfare will be paid for the appointment.

Applications in the form of curriculum vitae including names and addresses of two scientific referees should be sent to: Professor C. J. O’Connor, Department of Chemistry, University of Auckland, Private Bag, Auckland, New Zealand (Fax 64 9 302 1795) from whom further information is available.

Applications should be forwarded as soon as possible but not later than the closing date 30 September 1989. The University of Auckland An Equal Employment Opportunity Employer.

POSTDOCTORAL FELLOWSHIPS AVAILABLE

Postdoctoral fellowships are available dealing with the molecular mechanisms of gonadotropin-releasing hormone (GnRH) action. Projects currently underway deal with regulation of receptors, coupling, desensitization, activation, receptor-effector coupling, the calcium-calmodulin and IP-1,2,4,5-diacylglycerol-protein kinase C effector systems, and other related systems. We welcome applications from individuals who have completed (or will complete, prior to starting) the M.D. or Ph.D. degree. Competitive salaries are offered. Applicants should provide curriculum vitae and the names of references.

Contact: Dr. P. Michael Conn, Professor and Chairman, Department of Neurology, University of Iowa College of Medicine, Iowa City, IA 52242—1109.

The University of Iowa is an Affirmative Action and Equal Opportunity Employer. Minorities and women are encouraged to apply.
LABORATORY LIAISON COORDINATOR

TWO POSITIONS
Los Alamos National Laboratory, New Mexico
Lawrence Livermore National Laboratory, California

The Office of the President of the University of California is expanding its Office of Laboratory Affairs in order to improve the effectiveness of University management of its Department of Energy National Laboratories. The Liaison Coordinator will be the focus of the enhanced liaison activities between the Office of the President and the Laboratory.

The Liaison Coordinator will maintain a thorough familiarity with the operation and management of the Laboratory and will recommend ways in which information exchange can best occur among the laboratories, the Office of the President, and the University campuses. The Coordinator will work with University and Laboratory senior management to advance the University's goals of sound, objective research, free inquiry, effective dissemination of information, protection of dissent, and public service. The Coordinator will analyze and advise on all issues at the Laboratory that are relevant to sound management by the University. He/She will coordinate with and assist University oversight committees reporting to the President of the University and the Board of Regents. The Coordinator will promote collaborative research between Laboratory staff and campus faculty and students, and develop new opportunities for increased interactions.

The University requests applications from individuals interested in creating and formulating this unique and challenging new position.

REQUIREMENTS: Individuals should possess a combination of technical experience, extraordinary interpersonal skills, good managerial judgment, and an aptitude for independent and innovative thought. Technical background and experience must be sufficient to understand the broad range of Laboratory research. The applicant selected will possess the ability to interact successfully with high-level administrators, managers, faculty members and technical personnel, and the capacity for innovative, consultative and collaborative work. A Department of Energy "Q" Clearance will be required. Although the Liaison Coordinator will be stationed at the Laboratory a majority of the time, frequent travel to Oakland, California, will be required.

SALARY RANGE: Commensurate with qualifications and experience. The University of California offers excellent benefits, which include a relocation package.

APPLICATIONS: Please direct an introductory letter, resume, and salary history, before September 15, 1989, to the following address (for Los Alamos location, send to the attention of Screening Committee A; for Livermore location, send to the attention of Screening Committee B): Director of Personnel, University of California, Office of the President, 300 Lakeside Drive, 9th Floor, Oakland, California, 94612-3550. EO/EAA

Manager, Agricultural Toxicology

Hoechst-Roussel Agri-Vet Co., a joint venture of the multi-national concerns, Hoechst AG and Roussel UCLAF, and a division of Fortune 100 Hoechst Celanese Corporation, currently has a position available in Somerville, NJ for a Manager of Agricultural Toxicology.

The successful candidate will develop toxicological/health effects protocols, contract and monitor studies, as well as summarize and submit data packages to the EPA. This individual will also interact and respond to EPA questions regarding toxicological data packages. In addition, the position is responsible for preparing label statements on safe use and emergency treatments of our pesticide products.

Applicants must have a Ph.D. in Toxicology or a related discipline and minimum of 3-5 years' toxicology experience, preferably pesticide field. Knowledge of toxicology and human risk assessment required. Excellent verbal and written communication skills are required to participate with multi-disciplinary teams in pesticide registrations.

We offer a competitive salary, excellent company benefits including dental, 401(k) Savings Plan and Performance Sharing Plan. For prompt confidential consideration, please direct your resume with salary history/requirements to: Manager, Human Resources, Hoechst-Roussel Agri-Vet Co., Inc., Route 202-206, Somerville, NJ 08876-1258. An affirmative action employer M/F/H/V.

Hoechst

Hoechst Celanese

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POSITIO NS OPEN

POSTDOCTORAL FELLOWSHIPS: Applications are invited for postdoctoral fellowship positions to study excitation-contraction coupling in cardiac and vascular smooth muscle. Techniques include muscle mechanics, laser-activated photolysis of caged compounds, and the analysis of ion-containing lipids using HPLC. Applicants should have a background in either physiology or biochemistry. Send curriculum vitae to: Edward F. Lauffen, Ph.D., Rocke Research Institute, The Graduate Hospital, 415 South 19th Street, Philadelphia, PA 19146.

POSTDOCTORAL POSITION available immediately for a recent Ph.D. in biochemistry with experience in receptor and phospholipid metabolism. Projects involve studies on biochemical and functional interactions between the AMP and Ca signaling systems in smooth muscle. Salary is negotiable. Please send curriculum vitae and names and addresses of three references to: Dr. A. A. Abdel-Latif, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-1890. An Equal Opportunity/Affirmative Action Employer.

POSTDOCTORAL POSITION available immediately for a recent Ph.D. in biochemistry with experience in receptor and phospholipid metabolism. Projects involve studies on biochemical and functional interactions between the AMP and Ca signaling systems in smooth muscle. Salary is negotiable. Please send curriculum vitae and names and addresses of three references to: Dr. A. A. Abdel-Latif, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-1890. An Equal Opportunity/Affirmative Action Employer.

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DEAN COLLEGE OF LETTERS AND SCIENCE UNIVERSITY OF CALIFORNIA, DAVIS

The University of California, Davis invites applications and nominations for the position of Dean of the College of Letters and Science. The College, with more than 500 faculty, currently enrolls approximately 11,000 students in 47 undergraduate and 36 graduate programs leading to BA, BS, and advanced degrees through the PhD in the arts, humanities, social sciences, and natural sciences.

The Dean is responsible for academic leadership of the College, coordination of instruction and research, management of resources, administration of the College's affirmative action program, and coordination of the College's outreach and development efforts.

We seek candidates committed to academic excellence who can lead the College during a sustained period of growth and development. Qualifications include a distinguished record of research, teaching, and service in a research university or equivalent setting; demonstrated capability for academic administration and leadership; and ability to foster an environment in which creativity can occur. Commitment to undergraduate education of the highest quality and to expanded outreach and development efforts to provide additional resources for the College are also among the qualifications we seek.

Salary will be commensurate with experience and qualifications. The starting date will be 1 July 1990, or as negotiated.

Nominations and applications consisting of a current curriculum vitae and the names, addresses, and telephone numbers of five references are desired by 1 October and should be sent to Chancellor Theodore L. Huller, Office of the Chancellor, University of California, Davis, CA 95616. The position will remain open until filled. An equal opportunity, affirmative action employer.
**Cardiovascular Research Scientist**

The Research Institute at The Hospital for Sick Children is offering a staff position in its Division of Cardiovascular Research with the opportunity for a cross-appointment to a Basic Science Department at the University of Toronto. We are seeking a scientist (Ph.D. or M.D.) with post-doctoral training and expertise in molecular biology who is capable of establishing a vigorous independent research programme within the context of a team of five investigators. The programme's focus is the developmental biology of the myocardium and blood vessels and their adaptation to stress. Excellent facilities and space are available.

Please send curriculum vitae, including three references and quoting file number D075, to: Marlene Rabinovitch, M.D. Director of Cardiovascular Research, The Hospital for Sick Children, 555 University Avenue, Toronto, Ontario, Canada M5G 1X8

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**DIRECTOR**

**Science and Policy Programs**

American Association for the Advancement of Science (AAAS)

Nation's leading general science and engineering association, based in Washington, D.C., seeks Director for its new Directorate of Science and Policy Programs. Directorate encompasses programs on national science policy issues, including internationally recognized analysis of research and development spending; science, engineering and human rights; interaction between law and science (in cooperation with the American Bar Association); professional ethics; and other areas at the interface of science, technology and society. Directorate's budget currently on order of a million dollars per year.

Candidates should have a doctorate in an appropriate field of science or engineering, extensive experience in areas relating science and technology to policy, proven leadership and administrative qualities, and experience in working with foundations, government agencies and other grant-making organizations. Salary and benefits competitive for such a high-level position. Please send letter expressing interest together with current resume to ... Debra Wright

AAAS

1333 H Street, N.W.

Office of Human Resources

Suite 854

Washington, DC 20005

AAAS is an Equal Opportunity Employer

The closing date for receipt of application is 8 September 1989

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**Research Associate**

Nova Pharmaceutical Corporation, a leading research and development company in Baltimore, MD, has two postdoctoral opportunities available in its Pain and Inflammation Division.

Responsibilities will be to perform pharmacological studies of the molecular aspects of inflammation at either the cellular or enzyme level.

Recent PhD in Pharmacology, Immunology or Biochemistry is required.

Nova Pharmaceutical Corporation offers a competitive salary and benefits package, including relocation. Baltimore offers a wide array of cultural and recreational opportunities. For immediate consideration send CV with cover letter to: Nova Pharmaceutical Corp., Personnel-PD/RB, 8200 Freeport Centre, Baltimore, MD 21224-2788. EOE.

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**Research Coordinator Oncology Department**

American International Hospital, located near the Illinois-Wisconsin border, is internationally known for dedication to excellence in patient care and progressiveness in oncology treatment. We now have a position available for a professional interested in oncology research.

You will coordinate oncology research projects with experts in the field, manage data bases, integrate research data with other programs/systems and prepare data and scientific papers.

We require a degree in a medical or biochemical discipline, proven ability to manage data bases (especially "C" and Advanced Basic), demonstrated success in authoring scientific papers and experience managing scientific projects.

Our new salary rates allow us to offer a very competitive salary and benefits package. To apply, send your resume and salary requirements to our Human Resources Department at: American International Hospital, 1816 23rd Street, Zion, IL 60099 or call us at (312) 746-4257. An Equal Opportunity Employer.
POSITIONS OPEN

POSTDOCTORAL POSITION available immediately for candidates with a background in molecular biology and/or virology to study molecular biology of bovine respiratory syncytial virus. Deadline: 15 October 1989. Send curriculum vitae and names of three references to: Dr. Siba K. Samal, Regional College of Veterinary Medicine, University of Maryland, College Park, MD 20742-2025.

POSTDOCTORAL POSITION available for 2 years to study population genetics of spiny lobster and fish. Population biology background and experience with mtDNA methods are assets. Send curriculum vitae and names of references to: Dr. Patrick J. Walsh, Division of Biological and Living Resources, Rosenstiel School of Marine and Atmospheric Science, University of Miami, 4600 Rickenbacker Causeway, Miami, FL 33149.

POSTDOCTORAL POSITION. Available in the fall of 1989 to study the crystallization kinetics of peptides and proteins and the segregation of additives. Background in biophysics, physical biochemistry and familiarity with the characterization of crystal properties is desirable. Position available for 2 to 3 years. Please send curriculum vitae and three letters of reference to: Dr. Nair Rodrigues, College of Pharmacy, The University of Michigan, Ann Arbor, MI 48109-1065, Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in DEVELOPMENTAL NEUROSCIENCE available to study pharmacological and electrical properties of mammalian spinal motoneurons during development and after injury. Send curriculum vitae and the names of three references to: Dr. Lea Ziskind-Conhaim, Department of Physiology and Center for Neuroscience, 1300 University Avenue, University of Wisconsin, Madison, WI 53706. Telephone: 608-263-3382.

POSTDOCTORAL POSITION in MOLECULAR BIOLOGY available immediately to study the expression of genes controlling mevalonate metabolism in rat liver. Experience in standard molecular biology techniques required. Send curriculum vitae and names of three references by 14 September 1989 to: Dr. R. Kennedy Kao, University of South Florida College of Medicine, Department of Biochemistry and Molecular Biology, I2901 Bruce B. Downs Boulevard, MDC Box 7, Tampa, FL 33612-4799. The University of South Florida is an Affirmative Action/Equal Opportunity Employer.

POSTDOCTORAL POSITION in MOLECULAR/CELLULAR IMMUNOLOGY: To study mechanisms of receptor-mediated initiation of macrophage activation for tumor cytotoxicity and the relationship of autocrine modulation of effector and tumor target cells by complement subcomponents. Applicants should have background and interest in cellular immunology, immunobiology, and molecular biology. Send curriculum vitae to: Richard W. Leu, Ph.D., Head, Immunology Section, Biomedical Division, The Samuel Roberts Noble Foundation, Inc., P.O. Box 2180, Ardmore, OK 73402.

POSTDOCTORAL POSITION in MOLECULAR GENETICS OF HYPERTENSION is available for the identification and characterization of genes controlling blood pressure in genetically hypertensive rats. Techniques include library construction, cloning, gene regulation, RFLP analysis, and transgenic animals. Applicants must have Ph.D., M.D., D.V.M., or equivalent degrees and be citizens of permanent residence in the United States. Experience in molecular biology is not required, but experience in biochemistry is desirable. Send curriculum vitae to: Dr. John Rapp, Department of Medicine, Medical College of Ohio, P.O. Box 10008, Toledo, OH 43699. An Equal Opportunity Employer.

POSTDOCTORAL POSITIONS are available at the Guthrie Research Institute. Position A: Macrophage biology and regulation of cytokine secretion (Dr. D. Beehold). Position B: Surface antigens (biochemistry/ molecular biology) and mechanisms of NK and macrophage-mediated cytotoxicity (Dr. R. Hall). Position C: Molecular cloning of macrophage-derived cytokine factor(s) (Dr. N. Chang). Send curriculum vitae and names of three references to: Guthrie Research Institute, Guthrie Square, Sayre, PA 18840.

NEUROSCIENCE POSITIONS

THE UNIVERSITY OF KANSAS MEDICAL CENTER

MOLECULAR, CELLULAR, OR INTEGRATIVE

The University of Kansas Medical Center is seeking applications for two tenure track faculty positions in the areas of developmental neuroscience, neural plasticity or mental retardation. Appointment will be at the assistant or associate professor level, depending on qualifications and experience. Recruitment for these positions is through academic departments and the Smith Mental Retardation Research Center. Departmental affiliation will be based on the candidate's interests. The Smith Research Center emphasizes multi-disciplinary approaches to basic research relevant to the broad areas of mental retardation and developmental disabilities. Minimum requirements include the Ph.D., M.D. or equivalent degree and two years of postdoctoral experience. Initial review of applications will be on September 29, 1989 but the search will remain open until the positions are filled. Candidates should send curriculum vitae, description of research activities, representative reprints and names of three references to:

Paul D. Cheney, Ph.D.
Neuroscience Search Committee
Smith Research Center
University of Kansas Medical Center
Kansas City, KS 66103

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

JPL/NASA VISITING SENIOR SCIENTIST

Microgravity Science and Applications

Materials Science

The Jet Propulsion Laboratory is seeking a senior scientist to lead and coordinate the NASA Microgravity Science and Applications Materials Sciences Program. The position would allow the appointee to bring scientific expertise to bear on the planning, execution and coordination of broad-based programs in materials sciences. The responsibilities include the coordination of ongoing programs, evaluation of proposals for new efforts and participation in overall programmatic planning. Frequent travel and residence in the Washington, DC area will be required. A Ph.D or equivalent experience and training in materials sciences is required with emphasis in electronic materials desirable. Tenured faculty members are the preferred choice although qualified individuals from non-profit research institutions may also be considered. This position is open for immediate filling. Normal assignment in the Visiting Senior Scientist Program does not exceed two years. Appointees must be U.S. Citizens or Permanent Residents and are expected to return to their home institution following the NASA assignment. Please provide Curriculum Vitae, bibliography and names of four references to:

Dr. Harry Ashkenas 180-900
Jet Propulsion Laboratory
Department T09
4800 Oak Grove Drive
Pasadena, California 91109
(818) 354-8251

An Equal Opportunity Employer
ADDIS ABABA ETHIOPIA
INTERNATIONAL LIVESTOCK CENTRE FOR AFRICA
DEPUTY DIRECTOR GENERAL (RESEARCH)
VACANCY INT/007/89

POSITION
Applications are invited from outstanding scientists of proven leadership capacity for the post of Deputy Director General (Research). This is the most senior position in ILCA after the Director General. It is a post with the potential for making a considerable impact on livestock research and development in Africa.

The Deputy Director General (Research) reports directly to the Director General and is responsible for the management of a total of 80 professional research staff and 450 other staff at ILCA Headquarters and regional research sites. The annual budget of the Research Department is currently about $13 million. The position requires the incumbent to act for the Director General in his absence.

The Deputy Director General (Research) is responsible for the direction and coordination of ILCA’s research programs with particular reference to:

- providing intellectual and management leadership to ILCA research scientists;
- ensuring that goals, objectives and ideals of the centre are properly communicated and understood;
- advising the Director General on policies and actions that will increase research efficiency and maintain an environment encouraging professional vitality and high staff morale;
- coordinating the planning and implementation of research programs together with coordinators of ILCA’s Research Thrusts;
- coordinating the expansion of ILCA’s collaborative research programs.

QUALIFICATIONS
- A PhD or equivalent in livestock related research with a demonstrated ability in research management.
- A proven record of research achievements and publications.
- Fluency in English or French; good understanding of the other language highly desirable.
- Ability to lead a team of scientists from different disciplines and nationalities.
- Sensitivity to the national and regional priorities in livestock related research in sub-Saharan Africa.

GENERAL
The International Livestock Centre for Africa (ILCA), with headquarters in Addis Ababa, Ethiopia is one of the 13 international agricultural research organizations which are supported by the Consultative Group on International Agricultural Research (CGIAR). The Centre has research activities throughout sub-Saharan Africa and regional offices in Kenya, Nigeria, Niger and Mali.

ILCA’s goal is to achieve measurable and sustainable increases in livestock output in sub-Saharan Africa, and its major activities are research, training and information.

With purpose-built offices and research facilities on a large landscaped site close to Addis Ababa’s international airport, the Centre’s headquarters provide a secure and pleasant working environment, and sports and leisure facilities. The city, which enjoys pleasant weather throughout the year, has a large, diverse expatriate community and diplomatic missions from more than 75 nations. It is also the seat of the Organization of African Unity (OAU) and the United Nations Economic Commission for Africa (UNECA). There are several international schools covering American, British, French, German and Italian systems, among others.

Salary and related benefits of international staff are paid in USS, and will be in line with comparable international organizations. Initial salary will be determined by qualifications and experience.

Applicants should send current Curriculum Vitae, recent salary history, names and addresses of three professional referees and photocopies of supporting documents (not returnable) before 10 September 1989 in confidence to the Personnel Manager, ILCA, P.O. Box 5689, Addis Ababa, Ethiopia.
FIRST CALL FOR PAPERS

First International Symposium on the Biological Processing of Coal

May 1–3, 1990
Orlando Hyatt
Orlando, Florida U.S.A.

Cosponsored by
Electric Power Research Institute
U.S. Department of Energy

Due to the importance of securing clean fuels for the future and the potential that biotechnology has for yielding cost-effective alternatives in material processing, the Electric Power Research Institute and the U.S. Department of Energy are cosponsoring a symposium on biological processing of coal. This symposium is intended to foster increased activity in this area, identify pertinent new biotechnologies, and promote technology development and implementation.

Topics to be addressed include: coal structure and bioreactivity; coal analysis; coal biosolubilization, biogasification, and biobeneficiation—including biodeashing, biodesulfurization, biodenitrification and bio-assisted flotation; bioconversion of syngas and coal combustion gases; biobleaching of ash, and bioprocessing of coke, tars, and sludges.

Persons wishing to have their papers considered for presentation are requested to submit a 200–400 word mat-ready abstract in Courier typeface by October 18, 1989.

Please address abstracts and other inquiries to: Dr. Kee Rhee, U.S. Department of Energy, Pittsburgh Energy Technology Center, P.O. Box 10940 MS 141/L, Pittsburgh, PA 15236 U.S.A., (412) 692-5913.

POSTDOCTORAL ASSOCIATE POSITIONS

THE UNIVERSITY OF IOWA

Please contact the appropriate department to express your specific interest:

ANATOMY — Dr. Joe Dan Coulter, Professor and Head, Bowen Science Building.

ANESTHESIA — John H. Tinker, M.D., Professor and Head.

BIOCHEMISTRY — Alan G. Goodridge, Professor and Head, Bowen Science Building.

DERMATOLOGY — John S. Strauss, M.D., Professor and Head; or Kenzo Sato, M.D., Professor; 2 Boyer Tower, General Hospital. A postdoctoral research associate for the study of electrophysiology of cultured cells.

INTERNAL MEDICINE — Openings available in all disciplines in the Internal Medicine Department, College of Medicine, University of Iowa. Contact Francois M. Abboud, M.D., Professor and Head; or Dennis Goertt, Administrator. Phone 319/335-2800.

MICROBIOLOGY — Dr. Irving P. Crawford, Professor and Head, Bowen Science Building.

NEUROLOGY — Postdoctoral associate positions are available in Cognitive Neuroscience, Neurophysiology, Neurobiology, Cerebrovascular Disease, Epilepsy, Sleep, and Neuromuscular Disease. Antonio R. Damasio, M.D., Professor and Head, 2151 Roy Carver Pavilion.

PATHOLOGY — Dr. Richard G. Lynch, Professor and Chairman, 144 Medical Laboratories, Research activity in all areas of pathology.

PEDIATRICS — Dr. Frank H. Morris, M.D., Professor and Head.

PHARMACOLOGY — Dr. P. Michael Conn, Chairman and Head, Bowen Science Building. Openings available in all areas of pharmacology and toxicology.


URINOLOGY — Dr. Richard D. Williams, Professor and Chairman, Carver Pavilion. A postdoctoral position is available for physicians interested in the study of immune modulation of penile/urethral cancer cells in vitro and in animal models.

A Ph.D. or equivalent is required. Desirable qualifications are based on Project Investigator’s interest for research. Women and minorities are encouraged to apply. The University of Iowa, College of Medicine, Iowa City, Iowa, 52242, is an Equal Opportunity/Affirmative Action Employer.
Genetics Institute is seeking candidates with expertise in macromolecular structure/function, pharmaceutical development and protein purification to undertake projects involving studies of blood cell differentiation factors, thrombolytic agents, coagulation factors, etc. Opportunities currently exist for motivated and talented individuals with the following expertise:

**Protein Stability/Pharmaceutical Development**

Genetics Institute's Pharmaceutical Development Department is undergoing expansion that includes the formation of a new Stability Group. This group will be responsible for designing, performing, and maintaining bulk and final product stability protocols in support of preformulation research, formulation development, INDs, PLAs, and marketed products. To develop the core of this new and vital group, we need to fill the following positions:

**MANAGER** — Ph.D. + 2 yrs, MS + 2-4 yrs, BS + 4-6 yrs. The ideal candidate for this position will be experienced in the design and execution of stability protocols used to support development of new protein pharmaceuticals. This includes short and long term studies of protein stability that become integral parts of INDs and PLAs, as well as studies that support preformulation groups and clinical trials. In addition to being skilled as a manager, the candidate must possess excellent organizational abilities and be able to rapidly integrate into the company. He or she will be an analyst who understands protein functional assays and can assess their usefulness as indicators of stability. Writing stability sections of the regulatory documents will be required. Experience with statistical analysis and/or computerized organization of protocols, sample tracking, and data collation is desirable.

**ANALYSTS (3)** — BS/MS in Analytical Biochemistry, Analytical Chemistry, Physical Biochemistry, Biochemistry, Chemistry, or Pharmacy + 2-4 yrs. These individuals will be responsible for generating extremely reliable analyses of new protein pharmaceuticals being assessed for stability. They must be very good bench scientists who understand the significance or insignificance of variations in the analytical methods they will perform for proteins such as electrophoresis, chromatography, enzyme assays, and spectroscopy. They will also be responsible for keeping abreast of new developments in the field. If stabilizing protocols change as a product moves through the development pathway toward the marketplace, they must be flexible in adjusting to the new protocols and the ability to interact with personnel in other disciplines, especially engineering and production. There will also be considerable opportunity to interact with peptide and carbohydrate chemists, as well as cell biologists in exploring structure/function relationships of proteins of interest.

**Structural Protein Chemistry**

Two Research Associates (B.S./M.S.) ideally with laboratory experience in structural protein chemistry (e.g. protein sequencing, amino acid composition, peptide mapping, chemical modification, SDS-PAGE). The successful candidates will be responsible for the design, execution and interpretation of experiments and maintaining laboratory equipment. In addition to excellent interpersonal and communication skills, candidates should have at least one year of relevant laboratory experience and the ability to work both independently and as a member of a team.

A Scientist (Ph.D.) with experience in macromolecular structural analysis, preferably with a background in exploring functionally important domains of mammalian and bacterially expressed proteins. The successful candidate will be expected to assume responsibility for the design and execution of scientific projects. Since this position involves substantial interaction with scientists from other disciplines (e.g. carbohydrate chemistry, protein purification, cell biology), applicants must have excellent interpersonal skills as well as excellent oral and written communication skills. The ideal candidate will have at least 1-2 years of Postdoctoral or industrial experience in macromolecular structural analysis although other qualified candidates will be considered.

**Carbohydrate Chemistry**

Two research associates (B.S./M.S.) to take part in the analysis of protein-linked oligosaccharides utilizing LC, GC, and GC/MS. Successful candidates will be responsible for participating in the design, execution, and interpretation of experiments. The ideal candidate should have a minimum of one year of laboratory experience, preferably in analytical carbohydrate chemistry, although other candidates with experience in the techniques described above are encouraged to apply. All candidates should possess excellent written and verbal communication skills.

A scientist at the Ph.D. level with experience in the structural analysis of glycoconjugates and an interest in pursuing structure/function studies of glycans in recombinant proteins. Candidates with additional experience in any of the following are especially encouraged to apply: spectroscopic analysis of glycoconjugates, glycogen biosynthesis and processing, enzymology of lysosomal glycosyltransferases, or chromatographic separations of glycoconjugates. A minimum of two years of postdoctoral experience is desirable, but other outstanding candidates will be considered.

The Macromolecular Structure Group utilizes state-of-the-art technology and instrumentation for the structural characterization of recombinant glycoproteins including high mass, four-sector mass spectrometry and high field nuclear magnetic resonance spectroscopy. These and associated laboratories are housed in our new suburban Boston facility located in Andover, Massachusetts. Genetics Institute offers an attractive compensation and benefits package including equity participation and an excellent opportunity for personal and professional growth. Qualified applicants should forward their resumes, in confidence, to Peter Lasky, Genetics Institute, One Burdi Road, Andover, MA 01810-5901.

Genetics Institute is an equal opportunity employer, M/F/H/V.
POSITIONS OPEN

POSTDOCTORAL POSITION IN NEUROBIOLOGY

Position available to study the biochemistry and physiology of the precursor proteins in the LDL receptor complex. Experience in the isolation and characterization of the precursor proteins is desirable. Applicants should have a Ph.D. in molecular biology or biochemistry.

Expected salary: $30,000 per year.

Send vitae and references to: Dr. J. A. Smith, Department of Biochemistry, University of California, Berkeley, CA 94720.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE

A position is immediately available for an individual with a Ph.D. and experience in molecular biology and cell biology to study the regulation of the LDL receptor gene. Experience in molecular biology, genetics, and cell biology is required.

Salary: $30,000 per year.

Send vitae and references to: Dr. J. A. Smith, Department of Biochemistry, University of California, Berkeley, CA 94720.
Molecular Biologist

Somatix Corporation is seeking a molecular biologist for a position as staff scientist. The individual selected will be involved in the development of retrovirus vectors optimized for expression in a variety of cell types. The successful candidate will have a Ph.D. with 1 to 3 years of postdoctoral or industrial experience. Research experience should include design of new vectors, cell culture and high level expression in mammalian cells.

Cell Biologist

The successful candidate will be expected to contribute to the development of somatic-cell based delivery systems. Candidate should possess a Ph.D. and have extensive experience in cell biology, biomatrix materials or angiogenesis. Experience in artificial organs and cell implantation systems also desirable.

We offer a competitive salary and benefits package including stock options. Somatix combines a stimulating research environment with the opportunities found in a start-up company. Somatix provides excellent career potential for its employees. Qualified individuals should apply to: Somatix Corporation.

BROOKHAVEN NATIONAL LABORATORY

Protein Data Bank

The Protein Data Bank (PDB) has an opening available in Fall 1989 for a staff scientist. The PDB has excellent dedicated computer facilities, including three micro-VAX IIs and a Silicon Graphics IRIS workstation. The principal duties of the successful candidate will be to prepare atomic coordinate entries for newly deposited structures. This work will involve the analysis of atomic coordinate data to identify ambiguities and potential errors in the structures. Applicants should hold a Ph.D. or equivalent degree in biology, chemistry or a related field. Experience in crystallography is highly desirable.

Applicants should submit a curriculum vitae and names of three references by September 15, 1989 to: Dr. T.F. Koetzle, Chemistry Department, Brookhaven National Laboratory, Associated Universities, Inc., Upton, L.I., NY 11973. Equal Opportunity Employer m/f.

DIRECTOR

International Programs

American Association for the Advancement of Science (AAAS)

Nation’s leading general science and engineering association, based in Washington, D.C., seeks Director for its new Directorate of International Programs. Directorate encompasses programs on global environmental change; coordination of international activities of U.S. scientific and engineering societies; strengthening science and engineering in developing countries; science, arms control and national security; interaction between science, engineering and foreign policy; and a variety of international professional activities involving scientific and engineering societies in many parts of the world.

The International Science Directorate’s budget of several million dollars per year is composed of AAAS and grant funds from private foundations and government and international agencies. An immediate priority is the development of a major program in the global environmental change field, an area in which the new Director should have a distinguished record of accomplishment.

Candidates should have a doctorate in an appropriate field of science or engineering, extensive experience in international affairs and in global environmental issues, proven leadership and administrative qualities, and experience in working with foundations, government agencies and other grant-making organizations. Salary and benefits competitive for such a high-level position. Please send letter expressing interest together with current resume to . . .

Debra Wright
AAAS
1333 H Street, N.W.
Office of Human Resources
Suite 854
Washington, DC 20005

AAAS is an Equal Opportunity Employer

The closing date for receipt of application is 8 September 1989

PROTEIN ENGINEERING

ASSOCIATE SCIENTISTS/SCIENTISTS

Smith Kline and French, a worldwide leader in Pharmaceutical Research has exciting opportunities for Scientists to join a protein engineering effort in its expanding Macromolecular Sciences Department.

The selected individual(s) will design, conduct and interpret experiments to elucidate protein structure-function relationships and to develop improved protein analogs.

The successful candidate(s) will have:
- BS or MS in Chemistry or Biochemistry, with 3-5 years current laboratory experience required.
- Experience in DNA mutagenesis and sequence analysis required.
- Experience in protein purification and characterization highly desirable.
- Good mathematical and communication skills required.
- Experience in chemical modification of proteins desirable.
- Experience with computer data management and analysis desirable.

Our beautiful, new, state-of-the-art research facility is located in suburban Philadelphia, near Valley Forge. Smith Kline and French provides a stimulating and challenging work environment with opportunity for professional growth. We offer an attractive compensation and benefits package. For confidential consideration, please forward your resume to: Nancy Hanson, HR112, Smith Kline and French Research & Development, P.O. Box 1339, King of Prussia, PA 19406-0939. We are an Equal Opportunity Employer. M/F/H/V.

BROOKHAVEN
NATIONAL LABORATORY
ASSOCIATED UNIVERSITIES INC.
POSTDOCTORAL RESEARCH ASSOCIATE—Seek Ph.D. in neuroscience, cell culture, or molecular and cell biology to develop new model systems. Motile genes are to be transferred using retroviral vectors. This is a non-tenure, full-time, 2-year position. Send letter of application and research interest to Dr. John Brumbaugh, Coordinator of Research, Center for Molecular Biology, Master Hall, University of Nebraska–Lincoln, Lincoln, NE 68888–0118. Affirmative Action/Equal Opportunity Employer.

PRE- AND POSTDOCTORAL FELLOWS The National Institutes of Mental Health (Neurosciences Research Center) and The Center for Complex Systems at Florida Atlantic University announce a new, nationwide training program in Complex Systems and the Brain Sciences. The aim is to blend emerging concepts in complex systems (e.g., in nonlinear dynamics and so-called "chaos theory") with specific experimental model systems in the behavioral and brain sciences. Graduate training consists of a core curriculum in the mathematics of nonlinear dynamical systems, neuroscience (including neural networks and cognitive science) and computational neuroscience leading initially to a Ph.D. degree in a cognate area and eventually to a fully interdisciplinary degree. Ample opportunities are available for workshops, for short-term training, and collaborative work with other nodes in the network. University of California, Berkeley, Medical College of Pennsylvania, University of California, San Diego, and Cornell University are involved. Fellowships are for an initial period of 3 years with possible extension to five. Level of support is determined by current NIH guidelines. Prospective graduate fellows with an undergraduate degree in any of the behavioral and natural sciences and postdoctoral candidates should send a letter of application, GRE scores (proctored only), curriculum vitae and four letters of recommendation to: Dr. Joseph A. Selko, Director, Program in Complex Systems and Brain Sciences, Center for Complex Systems, Florida Atlantic University, Raton, FL 33461. F.A.U. is an Affirmative Action/Equal Opportunity Employer.

RESEARCH SCIENTIST to grow and genetically manipulate bacteria to produce large quantities of specific isotope-labeled proteins—dihydrofolate reductase; purify protein from bacteria using column chromatography techniques; synthesis of specific isotope-labeled drugs and bioactive chemicals; perform and analyze solid- and liquid-state nuclear magnetic resonance (NMR), experiments to study drug-protein interactions; compute and interpret sequence of drug-protein interactions. Required: Ph.D. in chemical physics. Demonstrated ability to perform stated duties by prior research or publication. Salary: $21,500 per year. Apply with résumé to: Georgia State University, 1101 Ponce de Leon Avenue, S.W., Atlanta, GA 30315, or to the nearest Georgia Job Service Center. Control GA5738047.

STAFF MOLECULAR BIOLOGIST desired by a pharmaceutical company in Texas. Research and development of novel human pharmaceutical using recombinant DNA technology. Cloning and characterization of novel genes having commercial interest. Construction of DNA library. Screening of recombinants, DNA sequencing, expression of recombinant products using microorganisms (E. coli and yeast). Cloning of new hypothetical hormone genes from porcine brain extracts. Develop methods of producing these hormones in usable and practical quantities so their potential can be evaluated in human clinical trials. Maintain scientific contacts with collaborator's work at world renowned universities. Must stay on schedule and meet our standards for quality. Requires additional contacts to further advance the possibility of having the new genes with clinical significance. Requires a Ph.D. in molecular biology. Must have at least 1 year of experience in the job offered or 3 years of experience in DNA research laboratory. Must also have at least 6 months of experience with E. coli and yeast expression systems in producing recombinant DNA proteins. Salary: $45,000 per annum for a 40-hour week. Apply at: The Texas Employment Commission, Dallas, Texas, or send résumé to: The Texas Employment Commission, Employment Services Building, Austin, TX 78778, J.O. Order #5515392. Ad paid by an Equal Employment Opportunity Employer.

POSITIONS OPEN

POSTDOCTORAL RESEARCH ASSOCIATE—Seek Ph.D. in neuroscience, cell culture, or molecular and cell biology to develop new model systems. Motile genes are to be transferred using retroviral vectors. This is a non-tenure, full-time, 2-year position. Send letter of application and research interest to Dr. John Brumbaugh, Coordinator of Research, Center for Molecular Biology, Master Hall, University of Nebraska–Lincoln, Lincoln, NE 68888–0118. Affirmative Action/Equal Opportunity Employer.

RESEARCH CHEMIST VACANCY Zip 23320-1111 (288,852 to $43,000) The Reactor Radiation Division, National Institute of Standards and Technology has a vacancy for a research chemist performing research in the area of chemical materials using neutron scattering and complementary methods of chemical spectroscopy and processing. Candidates must demonstrate a knowledge of elastic and inelastic neutron scattering methods as applied to chemical systems and materials containing metallic and inorganic catalysts, nonlinear optic materials and molecules in solids; infrared spectroscopic methods and high- vacuum, gas phase techniques for process monitoring and molecular insertion in catalytic and microporous materials; properties of hazardous inorganic and organic chemicals; and have the ability to organize a chemical materials program. Applicants must have a Ph.D. in chemistry or equivalent work experience and education to meet minimum requirements. Starting salary is in the range of $28,852 to $43,000 and will depend on the qualifications of the applicant. Please send Personal Qualifications statement (SF-171) and a narrative resume to: Brian Peden, Ph.D., National Institute of Standards and Technology, Department of Commerce, Gaithersburg, MD 20899. NIST is an Equal Employment/Affirmative Action Employer located in Gaithersburg, Maryland. U.S. citizenship is required.

RESEARCH POSITIONS IN MOLECULAR/IMMUNOLOGY Three positions open in Transplantation Immunobiology laboratory at Wayne State University headed by Dr. Lawrence Lum. Study the molecular immunology of T and B cells after human BMT. Areas of emphasis include immunology of allograft rejection, immunity, graft vs. host disease, and manipulation of specific immunity. Positions include: Postdoctoral Fellowship (Ph.D. or M.D.), Research Assistant (Ph.D.), and Research Assistant (B.S. or M.S.). Strong background in biochemistry, immunology, or molecular biology required. Send curriculum vitae and references to: Personnel, Division of Hematology and Oncology, 3800 Woodward, Suite 218, Detroit, MI 48201 or call 313-745-8149.

TENURE-TRACK POSITION—BIOCHEMISTRY: The Department of Chemistry and Biochemistry at Northern Illinois University at Normal seeks candidates for a continuing, tenure-track assistant professor position to begin August 1990. Applicants should hold the Ph.D. degree and have postdoctoral experience. The individual will hold a cross appointment in the School of Medicine carrying with it an additional three month summer salary and will teach biochemistry in both the Department and the School of Medicine. Preference will be given to individuals who apply organic or inorganic chemical approaches and physical principles to the investigation of important problems. A letter of application, résumé, statement of research plans, and at least three letters of recommendation should be sent to: Dr. G. J. Bisgard, Department Chair, Department of Chemistry and Biochemistry, Southern Illinois University at Carbondale, Carbondale, IL 62901. The closing date is 16 October 1989. Southern Illinois University at Carbondale is an Equal Opportunity/Affirmative Action Employer.

RESEARCH ASSISTANT PROFESSOR to join research group investigating ECM turnover by retinal pigment epithelium and trabecular meshwork. Intern support available immediately for Ph.D. with funding potential; medical genetics, ECM protein chemistry, molecular biology experience preferred. Curriculum vita, names of three references, and summary of research achievements to: Dr. Ted Assott, Department of Ophthalmology (L58), College of Health Sciences University of Portland, OR 97201. An Equal Opportunity/Affirmative Action Employer.

RESEARCH POSITIONS IN MOLECULAR/IMMUNOLOGY Three positions open in Transplantation Immunobiology laboratory at Wayne State University headed by Dr. Lawrence Lum. Study the molecular immunology of T and B cells after human BMT. Areas of emphasis include immunology of allograft rejection, immunity, graft vs. host disease, and manipulation of specific immunity. Positions include: Postdoctoral Fellowship (Ph.D. or M.D.), Research Assistant (Ph.D.), and Research Assistant (B.S. or M.S.). Strong background in biochemistry, immunology, or molecular biology required. Send curriculum vitae and references to: Personnel, Division of Hematology and Oncology, 3800 Woodward, Suite 218, Detroit, MI 48201 or call 313-745-8149.

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SMALL NUCLEAR RNA'S A postdoctoral position is available to join studies of the transcription, 3' processing, RNP assembly and intracellular trafficking of the U small nuclear RNA's. Send curriculum vitae and the names of two referees (with telephone numbers) to: Personnel Office, Attention: Thors Pederson, Ph.D., Worcester Foundation for Experimental Biology, 222 Maple Avenue, Shrewsbury, MA 01545. An Equal Opportunity/Affirmative Action Employer.

CONFERENCES GLAXO-UNC CONFERENCES FRONTIERS IN IMMUNOLOGY AND MEDICINE SYMPOSIUM "RECEPTOR AND ENZYME-BASED DRUG DESIGN" will be held 20-22 November 1989. Chapel Hill, North Carolina For information, contact: George M. Wyman, Department of Chemistry, Duke University, North Carolina, Chapel Hill, NC 27519.


TRAINING PROGRAM PRE- AND POSTDOCTORAL TRAINING POSITIONS IN PULMONARY PHYSIOLOGY AND PATHOPHYSIOLOGY. Training is offered at the University of Wisconsin–Madison under the terms of an NIH training grant. Training facility includes G. E. Bisgard, J. A. Dempsey, G. S. Mitchell, J. B. Skatrud, and B. H. Vidruk. Research includes chemoreceptor physiology, neural regulation of tracheal smooth muscle, exercise and sleep effects on neural-mechanical regulation of breathing, and respiratory muscle regulation. Write to: J. A. Dempsey, Ph.D., Department of Preventive Medicine, 304 North Walnut Street, Madison, WI 53706, for University of Wisconsin is an Affirmative Action/Equal Opportunity Employer.

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SCIENCE, VOL. 245
HUMAN GENOME I
An International Conference On The Human Genome
1st Annual Meeting – October 2-4, 1989
Town & Country Hotel
San Diego, CA

Co-Chairman:
Charles R. Cantor, Ph.D.
Director of Human Genome Center
Lawrence Berkeley Laboratory

PROGRAM
KEYNOTE ADDRESSES
Opening Welcome:
Richard Atkinson, President, American Association for the Advancement of Science.
Role of the Meeting:
Charles Cantor, Director, Human Genome Center, Lawrence Berkeley Laboratory.

CURRENT STATUS OF THE GENOME PROJECT
THE GENETIC MAP: Raymond White, Howard Hughes Medical Institute, University of Utah.
RESTRICTION MAPS: Cassandra Smith University of California, Berkeley.
CLONING: Ronald Davis, Stanford University School of Medicine.
APPLICATIONS: Thomas Caskey, Howard Hughes Medical Institute, Baylor College of Medicine.
SOCIETAL IMPLICATIONS: Daniel Koshland, University of California, Berkeley.

TECHNIQUE INNOVATIONS
PCR OF SINGLE SPERM: Norman Amheim, Ahmanson Center for Biological Research, University of Southern California.
SEQUENCING METHODS: George Church, Harvard Medical School.
DNA CLONING: Peter Dervan, California Institute of Technology.
RADIATION HYBRIDS: David Cox, University of California, San Francisco.
IN SITU HIBRIDIZATION: Jeanne Lawrence, University of Massachusetts Medical Center.
RAPID MAPPING: Glen Evans, Salk Institute.

INTERESTING REGIONS
CYSTIC FIBROSIS: Francis Collins, Howard Hughes Medical Institute, University of Michigan Medical Center.
TELOMEREs: Robert Moyzis, Los Alamos National Laboratory.
IMMUNOGLOBULINS: Takao Honjo, Kyoto University Faculty of Medicine.
IMMUNOGLOBULINS: Hans Zachau, Institute for Physiological Chemistry, University of Munich.
T-CELL RECEPTORS: Leroy Hood, NSF Science and Technology Center for Biotechnology, California Institute of Technology.
FRAGILE X: Jean-Louis Mandel, Institut de Chimie Biologique, Strasbourg.

APPLICATIONS
HUMAN EVOLUTION: Allen Wilson, University of California, Berkeley.
MULTIGENE DISEASES: Eric Lander, Whitehead Institute for Biomedical Research, Cambridge, Massachusetts.
HUMAN DIVERSITY: Jean Dausset, Human Polymorphism Study Center (CEPH).
SEX DETERMINATION: David Page, Whitehead Institute for Biomedical Research.
UNSTABLE SEQUENCES: Michio Oishi, University of Tokyo.
INTERPRETING SEQUENCE: Russell Doolittle, University of California, San Diego.

ORGANIZATION – DIFFERENT VIEWS OF CURRENT AND FUTURE SCIENCE AND PROCEDURES
HUGO: Victor McKusick, Johns Hopkins University School of Medicine; President, The Human Genome Organization (HUGO).
NIH: James Watson, Cold Spring Harbor Laboratory; NIH Human Genome Project.
DOE: Charles Cantor, Human Genome Center, Lawrence Berkeley Laboratory.
ECC: Peter Pearson, Johns Hopkins University School of Medicine.
JAPAN: Nobuyoshi Shimizu, Keio University School of Medicine.
INFOMATICS: David Lipman, National Library of Medicine.
OVERVIEW: Renato Dulbecco, Salk Institute.

POSTER SESSIONS AND EXHIBITS
Registrants of the meeting may submit abstracts for poster sessions by requesting abstract forms on the registration tear-off below. Exhibits will be open to all attendees and interested researchers Monday, Tuesday and Wednesday.

REGISTRATION FEES:
Make checks payable to: Scherago Assoc., Inc./Human Genome
$250 ON-SITE REGISTRATION – Includes Abstract Booklet.
$200 ADVANCED REGISTRATION – (Received by Sept. 1, 1989) Includes Abstract Booklet.
$75 STUDENT REGISTRATION – Student status must be confirmed in writing by department chairman.

Please print
Name __________________________________________ Street ______________________________
Dept. __________________________________________ City __________ State ______ Zip _____
Affiliation ______________________________________ Telephone: ( ) ________________

Return to: Human Genome I/Scherago Associates, Inc., 1515 Broadway, New York, NY 10036, Tel: (212) 730-1050
Fax: (212) 382-3725

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Here’s why Gilson may be the only source you need for liquid handling, LC and HPLC instruments

Whether you’re considering a new instrument or putting together a complete HPLC system, start with Instruments for Liquid Chromatography and Sample Preparation. You’re likely to find everything you need in this new guide to Gilson instruments and systems. It presents an overview of the entire line—our well-known fraction collectors and Minipuls® peristaltic pumps, plus HPLC systems, detectors and automated sample processors. Here are a few examples.

A fraction collector with 98% problem-free performance
Most people associate Gilson with reliable fraction collectors. Many FC 80 and FC 100 micro-fractionators have been in use more than 15 years. But reliability doesn’t stop with these instruments. Our newest collector, the FC 203, has a 98% problem-free performance record. A stationary rack system is one feature that assures reliable performance. Other features simplify operation. A special HELP key gives on-line instruction for time, drop or peak mode operation. And the FC 203 is just one of five Gilson fraction collectors.

A versatile detector with 254/280 nm built-in
Among the five Gilson detectors, one of the more versatile is the 112 UV/VIS detector. It has built-in 254 nm and 280 nm wavelengths to meet the most common detection requirements. And with optional lamp/filter assemblies, it can detect at 214 nm, 229 nm, and in the visible range of 340-640 nm. A choice of flow cells is offered for prep and analytical sample loads. Other Gilson detectors include variable wavelength UV, electrochemical, refractive index and fluorometric detectors.

A new system that automates solid phase extraction
The ASPEC system is one of the newest Gilson products. It automates sample cleanup with extraction columns...and then automatically injects the prepared sample into an on-line HPLC system. Other Gilson systems and instruments for sample prep and injection range from simple sample changers to large capacity auto-sampling injectors for up to 540 samples.

Eight complete HPLC systems to meet specific needs
Besides individual instruments, we also offer complete HPLC systems. Eight complete series are offered. These are based on gradient or isocratic elution, analytical or prep sample loads, automatic or manual injection. System controllers and software provide both control and data analysis. And peripheral components such as fraction collectors and detectors can be easily added. In fact, the modular system design facilitates upgrading at any time.

Request your free guide today
Instruments for Liquid Chromatography and Sample Preparation provides an overview of these and other Gilson instruments. It includes general specifications to help you determine the suitability of an instrument for your application. For your free copy, call toll-free 1-800-445-7667 (in Wisconsin, 608-836-1551). Or mark the reader service number below.

Gilson Medical Electronics, Inc., Box 27, 3000 W. Bellline Hwy., Middleton, WI 53562 USA, Tel: 608-836-1551, TLX: 26-5478, FAX: 608-831-4451
Gilson Medical Electronics (France) S.A., 72 rue Gambetta, B.P. No. 45, 95400 Villiers-le-Bel, France, Tel: (1) 34.29.50.00, TLX: 606682, FAX: (1) 39.94.51.83

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