TNF α enzyme immunoassay kit. Olympus Corporation has an enzyme immunoassay (EIA) kit for the quantitative measurement of tumor necrosis factor α in human serum or tissue culture fluid. The 2-hour test uses a two-point calibration curve and is calibrated to National Biological Standards Board recombinant TNF α. No overnight incubations or plate coating are required to achieve a sensitivity of 10 picograms per mL. The research kit contains one pre-coated microplate and all specimen diluents, calibrators, and developing reagents for 96 determinations. Circle 56 on Reader Service Card.

Integrated integral chromatograph. The new Integral 4000 from Perkin-Elmer is a fully integrated liquid chromatograph designed for the routine analysis laboratory. It was developed in direct response to the need to validate the HPLC system as well as the analytical results. With a built-in four-solvent pump, a multi-wavelength detector, a 109-position random access autosampler, a column oven and extensive data manipulation software, the Integral 4000 minimizes the potential for error in both the generation and interpretation of data. Each method is automatically validated with respect to analytical parameters, such as column type, mobile phase, and wavelengths.

The suitability and effectiveness of the chromatographic system, together with the repeatability of the method, are automatically checked to ensure complete compliance with the various regulatory and laboratory standard protocols.

The Integral 4000 also includes user diagnostics for easy trouble shooting to establish the significance of isolated calibration errors or performance variations encountered during routine analysis. The real time chromatographic display offers full dual channel quantitative analysis using multi-level calibration. Sample chromatograms, spectra, reports, deviations, and methods can be viewed on the screen or output to a printer, stored on a PC for further evaluation or sent to a LIMS. Circle 48 on Reader Service Card.

IBM SciBench.

IBM SciBench is a general-purpose laboratory data acquisition and analysis package, allows a user to write simple data acquisition programs for displaying and plotting data on an OS/2 system. This scientific/engineering "work bench" allows users to acquire, display, edit and analyze data, reducing the need to develop data acquisition and analysis software for every piece of laboratory equipment. IBM SciBench provides a library of software routines that may be linked to provide unique solutions for each type of equipment. Routines include: standard plotting, add, subtract, baseline smooth, differentiation, log, FFT, integral, square and square root as well as curve fitting routines such as: least square, smooth, spline, and polynomial fit. SciBench supports various industry-standard data acquisition boards, and allows for image acquisition and processing with 3D representation and wire frame drawing. Text, graphics and image can be combined into composite documents for technical publication and journal articles. Circle 51 on Reader Service Card.

Portable fume hood for thin layer chromatography. The Analytech portable fume hood helps reduce the amount of harmful or nuisance vapors produced when applying samples to TLC plates, when drying developed TLC plates, or when spraying TLC plates with reagents. The unit measures just 12" x 9" x 17" and plugs into any standard 115 volt outlet. A 100 CFM fan draws vapors and overspray through an activated carbon filter. Circle 67 on Reader Service Card.

Sequential unispense. Wheaton's sequential unispense is a microprocessor controlled liquid dispenser that offers repetitive dispensing for petri-dish, vial, bottle, and ampule applications. It can also dispense aqueous liquids and medium syrups. The dispenser contains a heavy-duty, 2-speed peristaltic pump and has a wide dispensing range of 0.5 mL to 8000 mL per dose with flow rates of 2 mL/sec. to 40 mL/sec. An adjustable delay can be set from 0.5 to 5 seconds between doses to accommodate user dexterity and work load. A foot-switch is included for manual operation. Accuracy and reproducibility are in the ± 1% range. Features include continuous recycling, slow start, slow finish, and solenoid driven gates. Circle 68 on Reader Service Card.
Nonradioactive RNA labeling kit. The GeniusRNA Labeling kit from Boehringer Mannheim is the first one designed for generating nonradioactive RNA probes, providing all essential reagents for labeling RNA with the steroid hapten digoxigenin (dig). RNA probes are labeled using SP6 or T7 RNA polymerase catalyzed in vitro transcription reactions. The dig-labeled probes can be used in almost all hybridization reactions, including Northern and Southern blotting and in situ hybridizations. Hybrids formed between probe and target nucleic acid are detected with anti-digoxigenin, alkaline phosphatase-conjugated antibodies. Kits and reagents for nonradioactive DNA labeling and nucleic acid detection are also available. Circle 58 on Reader Service Card.

Plant protein kinase inhibitor. Two potent inhibitors of plant Ca-dependent protein kinases are available from Kamiya Biomedical. K-252a and Staurosporine inhibit Ca-dependent protein kinase isolated from pea and from the green alga, Dunaliella salina. The Ca-dependent protein kinase from pea chromatin was inhibited with Ki values of 7-50 nM. The reagents are readily soluble in DMSO or DMF and are stable for 1 year. Circle 49 on Reader Service Card.

Blotting detection systems. Bio-Rad provides a complete line of blotting grade immune detection reagent, Immun-Blot® assay kits, enzyme substrate kits, total protein stains, and blotting standards. All of Bio-Rad's blotting grade antibody conjugates are affinity isolated and further purified by affinity chromatography, to provide highly specific results while eliminating false positive reactions in blotting immunoassays. All blotting grade reagents are quality tested in actual blotting experiments. Circle 75 on Reader Service Card.

Patch clamp micropositioning system. Burleigh Instruments, Inc. has introduced a fully integrated micropositioning system designed for patch clamp cellular recording techniques. The PCS-1000 Patch Clamp Micropositioning System combines 25mm of manual coarse positioning range with 70 microns of piezoelectric fine motion in a complete 3-axis mechanical assembly. The system facilitates rapid pipette exchange with a unique pivot assembly that allows the entire headstage and pipette to swing away from the preparation while maintaining coarse position integrity. The approach angle of the pipette is adjustable between 0 and 45° to accommodate different microscopes and hardware arrangements. The compact design and remote control capability provides superior thermal and mechanical stability. Circle 70 on Reader Service Card.

Powder-free latex gloves. Safeskin announces the first complete line of powder-free latex examination, sterile surgical and procedure gloves. As the glove-wearing market has been steadily moving toward the increased use of powder-free gloves, Safeskin's product introduction comes in response to the market's demand for high quality powder-free latex gloves that are also hypoallergenic, durable, and cost-effective. The gloves require no preoperative surgical washing and are specially treated to ensure excellent fit and ease of donning, and provide dermatological protection for the wearer's hands and cuticles from the dryness associated with powder. Circle 46 on Reader Service Card.

Literature

Laboratory Furniture, an 8-page guide to Fisher Scientific's Contempra Furniture Division, features Contempra furniture, fixtures, and fume hoods based on the building block concept that allows customers to individually design their labs. Offering a variety of colors and materials, Contempra's modular furniture system combines flexibility and functionality with beauty and versatility to provide a task-efficient customized lab. Circle 89 on Reader Service Guide.

STAR Biochemicals presents its first catalog, which lists standard biologically active peptides, synthetic enzyme substrates, Boc-amino acids, Fmoc-amino acids, and resins for solid phase peptide synthesis. STAR specializes in custom synthesis of peptides and maintains a fast turnaround time. Custom orders are sold by net peptide weight as determined by amino acid analysis. As an introductory offer, STAR is pleased to announce a 10 to 25% discount on all catalog items. Circle 52 on Reader Service Card.

The FisherBiotech Immunoagents 12-page catalog features more than 440 polyclonal and monoclonal, labeled and unlabeled immunoreagents, including goat anti-mouse, goat anti-human, goat anti-rat, and goat anti-rabbit immunoglobulin reagents; goat anti-mouse IgG subclass reagents; clonotyping systems; streptavidin; rabbit antibodies; mouse anti-human monoclonal reagents; genetically distinct collagen; affinity purified goat anti-collagen antibodies; and substrates. Circle 66 on Reader Service Card.
POSITIONS AVAILABLE — Classified advertisement: $25.00 per line (70 characters), $200.00 (8 line) minimum. Display advertisement: $600.00 for ¼ page, 3½ inches x 4½ inches; $900.00 for ½ page, 3½ inches x 9½ inches (vertical) or 7½ inches x 4½ inches (horizontal); $1200.00 for full page, 7½ inches x 9½ inches. (For display ads, add 5% if mechanical not submitted.) Advertisements will be published in next available issue unless otherwise specified. Deadline for receipt of copy is 5th day of month before publication. Payment or purchase order is required with insertion copy. Advertisements are noncommissionable to agents; no cash discounts are allowed. Blind advertisements are not accepted.

POSITIONS DESIRED — Candidates registered with FASEB Placement Service are allowed one advertisement of five lines, each containing 70 characters including spaces. The issue in which advertisement appears will be based on date of receipt of copy. Fee for publication in additional issues: $10.00 per issue.

Primary employers desiring identification and additional details concerning Positions Desired advertisers should write to address below, indicating hyphenated number appearing as last element of advertisement; a one-page application from advertiser(s) will be provided immediately. Advance telephonic determination of availability of advertisers from earlier-than-current issues is recommended. Employers not currently registered with Placement Service for annual meeting participation are charged a minimum fee of $30.00 for identification of up to 10 advertisers, plus $3.00 for each above 10, payable in advance to FASEB Placement Service.

Some registered candidates do not prepare Positions Desired advertisements; some advertisements are published at times not coinciding with employer recruitment activities. Primary employers not finding advertisements that appear to match current or projected needs are invited to request a search of all active candidate files. Telephone a description of the desired qualifications; results of search will be discussed telephonically with requesting official, and applications from candidates declared suitable will be forwarded. Employers not currently registered with Placement Service for annual meeting participation are charged a minimum fee of $30.00 for up to 10 applications, plus $3.00 for each above 10.

In publishing these advertisements FASEB assumes no obligations as to qualifications of prospective employees or responsibility of employers, nor shall FASEB obtain further information concerning positions advertised or those seeking employment. Accuracy and completeness of all listings are the responsibility of the submitting party.

Various U.S. national and state laws against discrimination, including the Federal Civil Rights Act of 1964, prohibit discrimination in employment in the United States because of race, color, religion, national origin, age, sex, or any reason not based on a bona fide occupational qualification. The Federation of American Societies for Experimental Biology endorses these principles and reserves the right to edit all copy and to refuse advertisements not in consonance therewith.

Employment in countries other than the United States may be restricted by government visa and other policies. Moreover, it is suggested that the generally accepted employment practices, the cultural conditions, and the exact provisions of the specific positions being considered be investigated thoroughly. The U.S. Embassies in countries of interest to potential employees should be able to provide up-to-date data concerning internal conditions.

For a description of operation at annual meetings, please refer to the January or February issue or contact the Placement Service.

Address all correspondence to FASEB Placement Service, 9650 Rockville Pike, Bethesda, MD 20814. (301) 530-7020

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POSITIONS AVAILABLE

RESEARCH FELLOWSHIPS, PULMONARY PHYSIOLOGY. Ph.D. or M.D. Specific areas: respiratory muscle mechanics and blood flow, heart-lung interactions, adaptation and growth after pneumonectomy, ventilatory control, human and animal exercise studies. Multidisciplinary approach involving Departments of Biochemistry, Bioengineering, Medicine, Pediatrics, Pathology and Radiology. Send CV to Robert L. Johnson, Jr., M.D., Department of Medicine/Pulmonary Research, University of Texas Southwestern Medical Center, 5323 Harry Hines Boulevard, Dallas, TX 75235-9034.

PHARMACOLOGIST/PHYSIOLOGIST. Monsanto Company is expanding exploratory pharmaceutical research and we are seeking a pharmacologist/physiologist. This position requires a Ph.D. in pharmacology or physiology with experience in isolated smooth muscle, cellular and whole-animal assay techniques. A working understanding of biochemistry, cell and molecular biology will facilitate collaborative research. This is an excellent opportunity to apply your skills to new discoveries and challenges. Please send CV and names of three references to Philip Needleman, Ph.D., Vice President, Research and Development, Monsanto Company, AA4-PN, 700 Chesterfield Village Parkway, St. Louis, MO 63198. Equal opportunity employer. M/F/H/V.

JUNIOR FACULTY POSITION (NTT). Available to operate the Hybridoma Facility at the Medical College of Georgia. The applicant should have experience in generating murine hybridomas, cloning, producing monoclonal antibody in ascites, ELISA, Western blot, peptide synthesis and cell culture techniques. A Ph.D. degree and experience in hybridoma methodology are required. Qualified applicants should apply with resume to Dr. Fred A. Garver, Department of Cell and Molecular Biology, Medical College of Georgia, Augusta, GA 30912-2100. EOE/A. Females/minorities encouraged to apply.

POSTDOCTORAL TRAINEESHIPS. Available immediately in a multidisciplinary NIAAA-funded research training program to study the genetic basis of alcoholism. The scientific disciplines include molecular biology, enzymology, biochemistry, immunology and neurosciences (neurochemistry, neuropharmacology, neuroanatomy, neuroendocrinology, electrophysiology and behavioral genetics). Annual stipend is $17,000-$30,000. Faculty includes 13 preceptors with long history of collaborative research. Applicants should send research interest, a CV and three letters of recommendation to Dr. Lawrence Lumeng, Indiana University School of Medicine, Departments of Medicine and Biochemistry, Medical Research & Library Building, 975 W Walnut Street, Room 424, Indianapolis, IN 46202-5121. Indiana University is an equal opportunity/affirmative action employer.
National Institutes of Health
THE DIVISION OF RESEARCH GRANTS
HEALTH SCIENTIST ADMINISTRATORS

The Division of Research Grants invites inquiries into special employment opportunities as Health Scientist Administrators of study sections in various scientific fields. Study sections, managed by Health Scientist Administrators, provide the initial review for technical and scientific merit of research grant applications submitted to NIH.

We are seeking individuals with proven independent research experience in the biological, clinical or behavioral sciences. Individuals must be U.S. citizens and have a Ph.D. degree or equivalent in an academic field of health or pertinent sciences allied to health or health-related research. At least one year of experience in research program administration and a Health Scientist Administrator rating from the Office of Special Examiner, NIH, is required.

Further information and qualification requirements can be obtained by contacting the:
Personnel Office, DRG
National Institutes of Health
5333 Westbard Avenue, Room 438
Bethesda, MD 20892
(301) 496-7577

NIH is an Equal Opportunity Employer

RESEARCH OPPORTUNITIES

Opportunities to conduct research at the National Center for Toxicological Research, a Food and Drug Administration laboratory near Little Rock, Arkansas. Research efforts at NCTR focus on testing the assumptions used in assessing risks posed by toxic chemicals emphasizing studies in biomarkers, modulators of toxicity, and extrapolation/exposure assessment.

POSTGRADUATE RESEARCH

- Up to 3 years of support for recent MS or PhD recipients
- U.S. citizenship or permanent resident alien status required

Postgraduate Research Program at NCTR
Science/Engineering Education Division
Oak Ridge Associated Universities
P.O. Box 117
Oak Ridge, TN 37831-0117
(615) 576-3190

U.S. DEPARTMENT OF ENERGY • U.S. FOOD AND DRUG ADMINISTRATION
DIRECTOR
MOLECULAR BIOLOGY LABORATORY

We seek a qualified individual with experience in molecular biology to head a research laboratory with a primary interest in the molecular biology of reproductive processes. Prior experience in the investigation of signal transduction processes is essential. Additional expertise in cellular and humoral immune processes would be beneficial. Expertise with ELISA on a supervisory level will be required. Academic appointment and salary commensurate with experience. Interested candidates are requested to submit CV with covering letter to:

N. Gleicher, M.D.
Chairman, Department of Obstetrics and Gynecology
Mount Sinai Hospital Medical Center
California Avenue at 15th Street
Chicago, IL 60608
(312) 650-6459
FAX (312) 650-6953

ASSISTANT PROFESSOR. Applications are invited for a tenure-track position. Applicant must have an earned doctorate in cell biology, biochemistry, molecular biology, poultry science, animal science or closely related area. The successful candidate will have a joint teaching (30%) and research (70%) responsibility and will be required to develop an innovative and productive research program that utilizes state-of-the-art molecular biology techniques with emphasis on the protein and amino acid regulation of growth and development in poultry. Teaching responsibilities will include participation in a graduate course in protein and amino acid metabolism. Applicants should submit a letter of interest, college transcripts, a detailed resume and three letters of recommendation to Dr. K. R. Robbins, Professor and Head, Department of Animal Science, The University of Tennessee, Knoxville, TN 37901-1071 (615) 974-7286. Applications accepted until September 28, 1990 or until position is filled. Salary commensurate with training and experience. The University of Tennessee is an equal opportunity/employer.

SESNON PROFESSOR OF ANIMAL SCIENCE. Applications are invited for the Sesnon Professor of Animal Science, an endowed chair in the Department of Animal Science/Agricultural Experiment Station (eleven months), University of California, Davis. Applicants should have made distinguished research contributions in the field of animal science relevant to the production of livestock or aquaculture species. Contributions may have been in a basic discipline (biochemistry, genetics, nutrition, physiology, behavior or an interdisciplinary area of animal science). The successful applicant will be expected to develop a research program, contribute to undergraduate and graduate instruction, assist with outreach programs and provide intellectual leadership to the Department, College of Agricultural and Environmental Sciences and Campus. Appointment will be one of the higher steps of the full professor rank. Professorship open until filled. Review of applicants will be September 15, 1990. Applications, with the names and addresses of three referees, should be submitted to William N. Garrett, Search Committee, Sesnon Professor of Animal Science, Department of Animal Science, University of California, Davis, CA 95616 (916) 752-1250. The University of California is an equal opportunity/affirmative action employer and invites applications from all qualified persons.

CHAIRMAN. Nominations and applications are requested for the position of Professor and Chairman of the Department of Pharmacology and Therapeutics at the University of Florida College of Medicine. The College seeks an individual who possesses and has demonstrated strong leadership abilities. The candidate should have an established and continuing record of major research productivity and a commitment to the further development and strengthening of the research and teaching programs of the Department. Applications and nominations are invited at this time. Outstanding candidates with M.D. and/or Ph.D. degree will be considered. Applications including CV, bibliography and the names and addresses of at least three references should be sent by September 1, 1990 to James E. McGuigan, M.D., Chairman, Search Committee for Pharmacology and Therapeutics, Chairman, Department of Medicine, University of Florida College of Medicine, J-277, Gainesville, FL 32610. An equal opportunity/affirmative action employer.

RESEARCH ASSISTANT PROFESSOR, Department of Medicine, University of Vermont (UVM). Responsibilities: conduct research in energy expenditure and substrate metabolism in humans; develop an IRMS facility for the doubly labeled water technique. Qualifications: Ph.D., biochemistry/metabolism; three years relevant postdoctoral training; publishing track record. Full-time, starting August 1, 1990; $32,000/year. Send CV, three references and research proposal by July 1 to State of Vermont, Department of Employment & Training, P.O. Box 488, Montpelier, VT. Women and minorities are encouraged to apply.

Virologists, immunologists, protein/peptide chemists. Faculty positions are available at the rank of assistant professor, associate professor and professor, due to significant expansion of the Department of Microbiology and Immunology at Vanderbilt University School of Medicine. We seek scientists or physician-scientists holding Ph.D., M.D., or M.D./Ph.D. degrees in the fields of virology (retroviruses or herpesviruses), immunology (cytotoxic T lymphocytes) and protein/peptide chemistry (isolation, sequencing, characterization and synthesis of peptides). Vanderbilt University School of Medicine is a research-oriented institution with a tradition of excellence in both basic and clinical sciences. Persons interested in these positions are invited to submit a CV with a synopsis of their ongoing research and three names of references to Dr. Jacek Hawiger, Oswald T. Avery Professor and Chairman, Department of Microbiology and Immunology, Vanderbilt University School of Medicine, Nashville, TN 37232-2363.

POSTDOCTORAL POSITIONS. Available immediately in the field of immunology. Emphasis will be on molecular and function analysis of the major histocompatibility complex or on the biochemistry/toxicology of lymphocytes. Applicants must have a Ph.D. or M.D. with training in biochemistry, immunology or molecular biology. Send CV, a brief statement of current and future research interests and three letters of reference to Dr. Lorraine Flaherty or Dr. Donal Murphy, The Wadsworth Center for Laboratories and Research, New York State Department of Health, Empire State Plaza, Albany, NY 12201 or to Dr. David Lawrence, Department of Microbiology & Immunology, Albany Medical College, Albany, NY 12208. Equal opportunity/affirmative action employers.

MICROBIOLOGIST. To join a leading team of clinicians and research scientists at a major university. Exceptional environment for an accomplished microbiologist with an active interest and extensive experience in flow cytometry. The position requires a Ph.D. and a successful research funding history. The position will start at the rank of Associate Professor of Medicine, tenured. Competitive salary and generous benefit package. Send CV and reply to William J. Koopman, M.D., Director, Division of Clinical Immunology and Rheumatology, The University of Alabama at Birmingham, Birmingham, AL 35294. UAB is an affirmative action/equal opportunity employer.

POSITIONS DESIRED
Ph.D., 1982; Food science, nutrition; Experienced in metabolism using HPLC, HPLC-MS, radiotracers, food chemistry, kinetics, quality assurance tests, molecular biology and biotechnology, business administration; Avail. April 1990; Research/teaching (biochemistry/food science); Salary negot. 5-0296

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Ph.D., 1983; Molecular biology, protein/lipoprotein chemistry, immunology; Cloning (Lambda II Zac, Bacillus), PCR, Northern/Southern/Western blotting, protein/lipoprotein purification (all forms of chromatography, gel electrophoresis), enzyme kinetics, tissue culture; Avail. September 1990; Academia/industry/government; Salary negot. 2-0335

Ph.D., 1979; Biochemistry, enzymology; Membrane transport kinetics and regulation in cells and after reconstitution in liposomes, preparation and characterization of membrane fractions, enzyme purification and kinetics, Western blot, heart perfusion; Research position in Northeast; Salary negot. 2-0363

Ph.D., 1984; Biochemistry; Plasma membrane & calpain preparations, protein/enzyme purification, conventional & affinity chromatography, FPLC, gel electrophoresis, Western blotting, HPLC, isoelectric focusing, autoradiography, ELISA, clotting assays; Avail. August 1990; Research in industry/government/academia; Salary negot. 5-0437

Ph.D., 1967; Pharmacology, endocrinology & metabolism; Diabetes, alcohol, isolated islets & adipocytes, RIA, HPLC, GC, protein purification, glucose-clamp technique, antiserum production, classical pharmacological techniques, animal surgery, teaching pharmacy, dental & medical students; Avail. August 1990; Research & teaching. 3-0307

Ph.D., 1990 (expected); Nutritional biochemistry, analytical chemistry, human and protein nutrition; Vitamin research, method development for GC and HPLC, extraction and isolation procedures, laboratory animal feeding studies, radiotracer research, teaching skills; Avail. September 1990; Research/teaching or postdoc. in academia/industry. 3-0410

Ph.D., 1965; Tumor immunology, immunochemistry; Hybridoma technology, recombinant DNA; Teaching experience; Independent position; Salary negot. 6-0430

Ph.D., 1986; Cell physiology, enzymology, endocrinology; Cell culture, enzyme purification & characterization, membrane ATPase assays, pharmacological methodology, column chromatography, hormone receptor assays, ELISA technology; Avail. June 1990; Research/teaching. Salary negot. 1-0433

Ph.D., 1985; Physiology, membrane biochemistry; Membrane transport, lipid analysis, HPLC, GLC, physiology of aging, food restriction, neuropharmacology, model of Alzheimer's disease, brain phospholipid and arachidonic acid turnover, neurotoxin, cholineric parameters; Avail. August 1990; Academia/industry; Chicago area; Salary negot. 1-0436

M.S., 1990; Nutrition; Metabolic principles of nutrition, nutritionally related disease in infants & adolescents, perspectives in public health nutrition; B.S., 1988, biology; Avail. April 1990; Research; Salary negot. 8-0443

Ph.D., 1990 (expected); Cancer/molecular biology, pharmacology; Tissue culture, HPLC, protein biochemistry, enzymology, animal studies/surgery, cloning, cDNA library screening, construction of expression vectors, transfection, oncogene studies, Northern/Southern/Western blotting; Avail. September 1990; Postdoc.; New England, D.C., West coast. 2-0456

Ph.D., 1990 (expected); Molecular biology, biochemistry; Protein and plasmid purification, mRNA isolation, cDNA synthesis, native and SDS gel electrophoresis, footprinting, gel retardation, Western blotting, MAb production, tissue culture, ELISA; Avail. December 1990; Postdoc.; Salary negot. 2-0457

M.S., 1990 (expected); Immunology, nutrition; In vitro bioassays, cell isolation, tissue culture, protein purification; Avail. November 1990; Research position in industry/academia; Salary negot. 8-0458

Ph.D., 1978; Physiology, cellular and tissue level; Noradrenaline uptake, release and metabolism, smooth muscle pharmacology, skeletal muscle physiology, oxygen radical production and detection; Avail. September 1990; Washington DC and Metro area; Research or academic position; Salary negot. 1-0459

Ph.D., 1985; Neurophysiology, electrophysiology; Intracellular Ca** measurements using fura-2, seconuorin, or "Ca**", mechanical and electrical properties of skeletal muscle recorded in vivo, in situ and in vitro; Avail. July 1990; Research/teaching; Tenure track; Salary negot. 1-0460

Ph.D., 1977; Endocrinology; Director, Endocrine Core; M/F reproduct., pituitary function, steroid/insulin/catecholamine receptor signaling, molecular biology of steroid-sensitive hepatic proteins, endocrine mechanisms in lipid metabolism, atherosclerosis, hyperinsulinemia, fat partitioning; 60+ publications; Salary negot. 1-0461

Ph.D., 1990 (expected); Cardiovascular physiology; Endotoxemia, ischemia/reperfusion, in vivo cardiac function studies, mechanism of endotoxin action, effects of antioxidants on infant size and contractile function; Avail. June 1990; Postdoc. position in academia or industry; Salary negot. 1-0462

Ph.D., 1981; Physiology, perinatal; Hyperoxic/hypoxic modulation of chick embryo growth, metabolism, hemodynamics, O2 transport, O2 toxicity, free radicals, aging, multiple animal models, teaching experience in human/comparative anatomy/physiology; Avail. July 1990; Research/teaching, academia/government/industry; Salary negot. 1-0463

Ph.D., 1980; Biochemistry, nutrition, pharmacology; Enzymology, purification, kinetics, mechanism of action, chemical model studies, organic synthesis, spectroscopic and chromatographic methods, metabolism, in vivo studies, radiotracers, vitamins and anticoagulants; Avail. June 1990; Research in academia/industry; Salary negot. 2-0466

Ph.D., 1975; Biochemistry, enzymology/protein chemistry; Large-scale purification and characterization, 2D electrophoresis, Western blotting, antibody production, HPLC, FPLC, drug and xenobiotic metabolism, brain proteins, autoantibodies; Avail. July 1990; Research and/or regulatory work in government/industry. 2-0468

Ph.D., 1978; Biochemistry, cell biology; Tissue culture (brain cells, fibroblasts), receptors, gel electrophoresis, Western blotting, cDNA and mRNA isolation, PK-C assay, phosphorylation; Avail. July 1990; Research/teaching in academia/government/industry; Salary negot. 2-0469

Ph.D., 1989; Biochemistry, metabolism, metabolic control; In vivo and in vitro techniques, HPLC, protein purification, radioisotopic tracers, NMR, GC-MS, small animal surgery, small scale organic synthesis; Avail. September 1990; Research/teaching; Salary negot. 2-0470

Ph.D., 1985; Biochemistry, pharmacology; Anticancer drugs, animal tumor models, biochemical mechanisms of drug action and resistance (MDR), in vivo tumor therapy, toxicity, pharmacokinetics, in vitro drug cytotoxicity, metabolism, transport, binding, tissue culture, HPLC, isotopes; Avail. June 1990; Northeast; Research scientist. 3-0474

Ph.D., 1990 (expected); Human nutrition, therapeutic nutrition, clinical nutrition; Biochemical research in lipid metabolism, enzyme quantitation and qualification, parenteral-enteral nutrition and infant-maternal nutrition; Avail. January 1991; Teaching/research, academia; Salary negot. 5-0480

Ph.D., 1990 (expected); Cell biology of growth factors, signal transduction, biochemical pharmacology; Animal surgery, tissue fractionation, protein kinase assay, SDS-PAGE/Autoradiography, RNA isolation, slot blot, Northern analysis, nuclear runoff; Avail. January 1991; Postdoc. in academia/industry; Salary negot. 7-0483

Ph.D., 1986; Physiology, cell biology; Cellular enzyme and barrier function influenced by pharmacologic agents, stress and aging, ex vivo and in culture, cell culture, morphology, TEM, SEM, immunohistochemistry, spec;ular; Avail. July 1990; Research/teaching in academia/government/industry; Salary negot. 1-0488

Ph.D., 1990 (expected); Molecular biology, immunology, microbiology; DNA cloning, sequencing, hybridizations, monoclonal antibodies, ELISA, cell culture, computer literate; Avail. August 1990; Research associate in academia/research position in industry; Salary negot. 2-0489

Ph.D., 1985; Experimental pathology, cell biology, biochemistry; Funded through 1994; Mechanisms of pulmonary fibrosis, chemotaxis, tissue culture, animal surgery, receptor binding, HPLC, ELISA, EM, subcellular fractionation; Research/graduate teaching; Salary & avail. negot. 4-0490
Ph.D., 1990 (expected); Bioengineering, chemical engineering; Cell culture, RIA, ELISA, MAb purification/characterization, autoradiography, immunohistochemistry, animal surgery, histology, microtomy, fluorescent and light photomicroscopy, tumor characterization, modeling of protein transport in tumors; Avail. December 1990; R&D in industry. 6-0491

Ph.D., 1983; Biochemistry, protein/peptide chemistry; HPLC, purification and characterization, electrophoresis, Western blotting, amino acid analysis and sequencing, monoclonal antibody techniques; Research and development in industry or academy; Salary negot. 2-0492

Ph.D., 1985; Cell biology, comparative immunology, parasitology; Tissue culture, immunohistochemistry, fluorescence and video microscopy, 1- and 2-D PAGE, HPLC, protein purification, teaching experience; Research/teaching; NW or SW. 7-0493

Ph.D., 1980; Cardiopulmonary physiology, pharmacology; Acute and chronic disease models of cardiovascular and allergic airway disease with emphasis on pharmacologic modification, isolated perfused organs, organelle isolation, isotope methodology; Avail. July 1990; Industry, academia or government. 1-0494

MB, ChB, 1979; Ph.D., 1990 (expected); Anesthesiology, animal surgery, in vivo/in vitro techniques on changing pH & cardiovascular responses to Ca-antagonists, intracellular pH/Ca2+ measurement; Avail. January 1991; Postdoc. research/teaching; Salary negot. 3-0495

Ph.D., 1986; Nutritional biochemistry; Antioxidants and carcinogenesis/toxicology, nutrient transport, pancreas, liver, lung, intestine, HPLC, enzyme and nutrient assays, lipid peroxidation, RIA, protein purification, gel electrophoresis; Research and/or teaching, academia, government or industry; Salary negot. 5-0496

Ph.D., 1990 (expected); Molecular biology, biochemistry, biophysics; Site directed mutagenesis, cloning, DNA sequencing, gel electrophoresis, protein purification, modification, expression, fluorescence, FPLC, HPLC, membrane ion transport, immunoblotting; Avail. September 1990; Postdoc. in academy/industry; Salary negot. 2-0671

Ph.D., 1990 (expected); Biochemistry, molecular biology; PCR, subcloning, DNA sequencing, CDNA library screening, computer data bank searches, protein purification, HPLC, antibody production, Westerns, ELISA; Avail. December 1990; Postdoc. in academy/industry; Salary negot. 2-0672

Ph.D., 1990 (expected); Immunology, microbiology; Cellular immunology, tissue culture, cell separation, functional assays of T and B cells, neutrophils and platelets, animal surgery, immunizations, biochemical assays for serum products; Cytokine research in drug or disease model; Avail. September 1990; Salary negot. 6-0673

Ph.D., 1990 (expected); Immunology, molecular biology, cell biology; Tissue culture, MA b production, in vitro bioassays, column chromatography, colony hybridization, gel electrophoresis, DNA sequencing, vector construction, Northern/Southern/Western blotting, DNA transfection; Avail. September 1990; Postdoc. in academy/industry. 6-0674

Ph.D., 1990 (expected); Biochemistry, cell biology, chemistry; Cell culture, protein and peptide purification and modification, HPLC, TLC, column chromatography, RIA, animal immunization, gene cloning, sequencing, kinetics of enzymatic reactions; Avail. January 1991; Research/teaching; Salary negot. 2-0675

Ph.D., 1983; Pharmacology, biochemistry, physiology; Receptor binding, in vitro bioassays, Western blotting, tissue culture, enzyme/protein characterization, purification and kinetics, affinity labeling and chromatography, HPLC, bio-organic synthesis; Avail. September 1990; Industry; Salary negot. 3-0676

Ph.D., 1985; Protein and peptide chemistry, enzymology; Protein purification, immunopurification, ligand-directed modification, HPLC methods development, ⁴¹P-peptide mapping and sequencing, solid phase peptide synthesis, in vitro bioassay, receptor interactions; Avail. July 1990; Research/teaching; Salary negot.; L.A. or So. Cal. 2-0677

Ph.D., 1982; Biomedicine and theoretical biology, plant biology, biochemistry; Teaching (university), computer modeling, biomathematics, gel electrophoresis of proteins, vaccines, DNA and intact viruses, isolation and structural analysis of hormone metabolites; Avail. October 1990; Research/teaching; Salary negot. 2-0678

Ph.D., 1987; Biochemistry, microbiology, enzymology; Cysteine chemical modification, protein chemistry of an integral membrane protein, HPLC, purification and SDS-PAGE of hydrophobic transmembrane peptide; Avail. October 1990; Academia/industry; Salary negot. 2-0679

Ph.D., 1987; Virology, immunology, microbiology; Tissue culture, virological assay, immunocytochemistry, in situ hybridization, antibody production and purification, radiolabeling, immunoprecipitation, 1-D and 2-D SDS-PAGE, Western blot, histology, immunossays; Avail. November 1990; Research/teaching; Salary negot. 6-0680

Ph.D., 1991 (expected); Molecular biology, biochemistry, microbiology; DNA-protein cross-linking, site-directed mutagenesis, cloning, PCR, Southern/Western blotting, protein modification, gel shift assay, kinetic study on DNA-protein interaction; Avail. January 1991; Postdoc. in academy/industry; Salary negot. 2-0681

Ph.D., 1986; Biochemistry, immunocommiscology, cellular immunology; Protein purification, gel electrophoresis, MA b production, Ig purification, immunossay, Western blot, immunoprecipitation and immunofinity purification, lymphocyte purification, T cell activation, FACS analysis; Avail. July 1990; Research in industry/academia. 6-0682

Ph.D., 1985; Pharmacology, toxicology, pathobiology; Immunopharmacology of eicosanoids, cytokines, in vivo animal studies, radiolmmuno- assays, gas chromatography, gel electrophoresis, animal surgery, Western blot, cell cultures, in vitro virus studies, ELISA; Avail. December 1990; Research/teaching; Salary negot. 6-0683

Ph.D., 1982; Biochemistry, enzymology, toxicology, oxidative stress; Protein purification, enzymology, Ab production, Western blot, ELISA, immunotitration, gel electrophoresis, radioisotope, inhalation toxicity, spectroscopy, GC-mass, HPLC, ESR; Research/teaching. 2-0684

Ph.D., 1980; Immunology, immunocommiscology; MA b development, EIA and bioassays, T cell hybridomas, lymphokines, cancer immunotherapy, autoimmunity in animal models, AIDS peptide-based diagnostics, ana- lytical preparative flow cytometry, project management, Biomek 1000 RWS and Mac; Avail. August 1990; Industry; Salary negot. 6-0685

Ph.D., 1991 (expected); Protein chemistry, immunology, biology of bacterial toxins and their receptors; Tissue culture, MA b/Anti-ld production, ELISA, RIA, Western blotting, gel chromatography, FPLC, gel electrophoresis, PCR, cloning/characterization of fusion-proteins; Avail. June 1990; Postdoc. in academy/industry; Salary negot. 6-0686

Ph.D., 1990 (expected); Biological chemistry, chemistry, immunocommiscology, analytical biochemistry; Protein chemistry, isolation, purification, kinetics, HPLC, MS, ELISA, organic synthesis, chromatography, electrophoresis computer instrumentation and data collection, radioisotopes, RIA; Avail. August 1990; Industry/government; Salary negot. 2-0687

Ph.D., 1990 (expected); Molecular biology, cell biology, protein chemistry; Footprinting, gel mobility shift assay, cell culture, transfection and gene expression, site directed mutagenesis, subcloning, protein purification, Northern/Southern blotting; Avail. September 1990; Postdoc. in academy; Salary negot. 2-0688
Membership in the Federation of American Societies for Experimental Biology and in Its Constituent Societies

Membership in the Federation is limited to societies; there is no individual membership. Any society in the field of biological science may apply for membership, either corporate or affiliate, and may be admitted by a three-fourths majority vote of all members of the Federation Board. The societies listed below presently constitute the Federation.

Since requirements and procedures for election to membership in the member societies vary, the following information is provided:

Corporate Members

The American Physiological Society. Any resident of the Americas who conducts and has published meritorious original research in physiology shall be eligible for proposal for Regular membership. Residents of The Americas who are engaged in research in physiology or related fields and/or teaching physiology shall be eligible for proposal for Associate membership. Residents outside of The Americas who conduct and have published meritorious original research in physiology shall be eligible for proposal for Corresponding membership. Individuals must apply in writing on forms provided by the Society. Two Regular members must sponsor a candidate for membership. Emeritus members also can be sponsors of new members. A Corresponding or Honorary member of the Society may substitute for a Regular member in sponsoring a candidate for Corresponding membership. Council nominates candidates who stand for election by the vote of Regular members at business meetings of the Society. Other classes of membership include Honorary, Emeritus, Associate, Associate Corresponding, Student, and Sustaining Associate. Further information and nomination forms are printed in The Physiologist and are available from the APS Membership Services Department, 9650 Rockville Pike, Bethesda, MD 20814.

American Society for Biochemistry and Molecular Biology. Investigators residing in the Americas who have demonstrated the ability to conduct meritorious original research in biochemistry or molecular biology are eligible for Regular membership. Such individuals must be nominated by two Regular members of the Society and, if favorably recommended to the Council by the Membership Committee, will be elected at any regular meeting of the Society. Individuals not yet fulfilling the requirements for Regular membership may be nominated by two Regular members for Associate membership. Nominees for Associate membership become members immediately on nomination. Eminent biochemists residing in countries other than the Americas may be nominated for Honorary membership. Individuals not otherwise eligible for any type of membership, but who have made significant contributions through service to biochemistry or molecular biology are eligible for designation as a Distinguished Service Associate. Nomination forms and specific nomination criteria may be obtained from ASBMB Membership Secretary, 9650 Rockville Pike, Bethesda, MD 20814.

American Society for Pharmacology and Experimental Therapeutics. Any qualified investigator who has conducted and published a meritorious original investigation in pharmacology and is a legal resident of the United States, its dependencies, Canada, or Mexico shall be eligible for Regular membership in the Society. Nominees for membership shall be proposed by two members of the Society who are not members of the Council or of the Membership Committee at the time of the initial nomination. Other classes of membership include Affiliate and Student/Fellow, which are for pharmacologists who are either residents of a country other than the USA, Canada or Mexico, are not now active in research, or who are advanced students or are fewer than 5 years past their doctoral degree. Nomination forms are printed in The Pharmacologist and are available from Mrs. Kay A. Croker, Executive Officer, 9650 Rockville Pike, Bethesda, MD 20814.

American Association of Pathologists. Successful candidates for membership in the AAP are independent investigators with solid scientific qualifications, commitment and continuing productivity in experimental pathology or related disciplines. Not all members are pathologists, but are investigators with a strong interest in the pathogenesis and diagnosis of disease. Candidates are nominated by at least two members of the Association for approval by the Council and a majority of members attending the annual AAP Business Meeting. Nominations for Trainee membership (residents or fellows) are accepted from AAP members who can certify the training status of the nominee. Additional information and application forms may be obtained from Dr. Frances A. Pittlick, Executive Officer, 9650 Rockville Pike, Bethesda, MD 20814.

American Institute of Nutrition. Any person who has conducted and published meritorious original investigations in some phase of nutrition and who is professionally active in the field of nutrition shall be eligible for Active membership. Persons rendering superior service to nutrition through teaching, administration, or technical service may also be deemed eligible. Nominees shall be sponsored by two members of the Institute. Nominations should be received by February 1, and those nominations approved by Council will be presented for election at the annual business meeting. Other classes of individual membership include Associate, Emeritus, and Student. Membership in the American Society for Clinical Nutrition, the Clinical Division of the AIN, is based on professional activities in the area of clinical nutrition. All nominees for ASCN membership must be members of AIN or be considered for election simultaneously. AIN/ASCN nomination forms are available from the AIN Secretariat, 9650 Rockville Pike, Bethesda, MD 20814.

The American Association of Immunologists. Investigators qualified by virtue of a doctorate degree or equivalent experience and training who have conducted and published meritorious original investigations in immunology or related disciplines are eligible for membership. Candidates must be nominated by two members of the Association. The recommendations of a membership committee are submitted for election by the membership at the annual spring meeting. For application forms write to Dr. Joseph F. Saunders, Executive Director, 9650 Rockville Pike, Bethesda, MD 20814.

Affiliate Member

The American Society for Cell Biology. To be considered for Regular membership, an applicant must hold the Ph.D. or equivalent degree or have equivalent experience, and be sponsored by two Regular or Emeritus members. Other classes of membership are Emeritus and Student. Further information and forms may be obtained from Ms. Dorothea C. Wilson, Executive Officer, 9650 Rockville Pike, Bethesda, MD 20814.

Revised August 1989
Volunteered Review Articles in The FASEB Journal

The Editorial Board welcomes proposals for state-of-the-art reviews on topics not currently being covered in the Journal.

Prospective authors should send a one-page summary of the proposed review, not a completed review, to the Editor-in-Chief, Dr. W. J. Whelan, The FASEB Journal, P.O. Box 016129, Miami, FL 33101-6129, USA.

The proposal should be accompanied by a list of 8-10 literature citations, including the title of the article, that would be included in the review. These citations should be drawn from the recent relevant work of the author(s) and of others.

Such proposals are circulated to a group of expert editors and referees for an evaluation, and a decision to accept is based on their recommendations. Reviews are published some 4-5 months from receipt and proposals for cover illustrations are welcomed.
CONCEPTS IN MOLECULAR BIOLOGY

Sponsored by the American Association of Pathologists
Cosponsored by the U.S. and Canadian Academy of Pathology
November 1-4, 1990, Bethesda, Maryland

Thursday, November 1
SESSION I: Principles of Molecular Biology
Introduction to Nucleic Acids (DNA, RNA)
Proteins
Gene Expression

SESSION II: Molecular Biology: Strategy and Tools
Extraction of Nucleic Acids
Hybridization Techniques (Agarose gels, southern blots, northern blots, RFLPs, and probes)
Polymerase Chain Reactions and Amplification Systems

Friday, November 2
SESSION III: Specialized Techniques
Approaches to Cloning
DNA Sequencing
In Situ Hybridization
Transfection: Introduction of Macromolecules into Mammalian Cells
Laboratory Demonstrations

Saturday, November 3
SESSION IV: Applications to Human Disease I
Chromosomal Localization of a Gene
Gene Rearrangements (chromosomal translocations) in Human Lymphoma
Oncogenes and Growth Factors
Cancer Progression and Metastases

SESSION V: Applications to Human Disease II
Transgenic Mice
Hepatitis B Virus
Human Immunodeficiency Viruses
Human Papillomaviruses
Practical Problem-Solving in Molecular Diagnosis

Sunday, November 4
SESSION VI: New Developments in Molecular Pathology Research
Tumor Suppressor Genes
Gene Therapy
Molecular Approaches to Targeted Therapy
Drug Resistance Genes

COURSE ORGANIZERS
Mark E. Sobel, MD, PhD
Peter M. Howley, MD
Lance A. Liotta, MD, PhD

GUEST FACULTY
W. French Anderson, MD
Susan Sklower Brooks, MD
Frances V. Chisari, MD
Jeffrey Cossman, MD
Michael M. Gottesman, MD
Bruce H. Howard, MD
Harold Moses, MD
Ira Pastan, MD
Arnold B. Rabson, MD
Mark Stoler, MD
Nancy Smyth Templeton, PhD
Jean Wang, PhD

WHO SHOULD ATTEND
The course has been designed for diagnostic and experimental pathologists, basic scientists, and clinical investigators who desire to become conversant with the basic principles and concepts of recent advances in biotechnology. Specifically, emphasis will be placed on understanding nucleic acid molecular biology and its application to diagnosis and pathogenesis of human disease.

For Additional Information call AAP: (301) 530-7130

CONCEPTS IN MOLECULAR BIOLOGY
REGISTRATION FORM

NAME ____________________________
TITLE ____________________________
INSTITUTION _______________________

ADDRESS __________________________

CITY __________________ STATE ______ ZIP _____

TELEPHONE _________________________

*U.S. Funds only. AAP does not accept credit card charges. Registration valid only with full payment. No telephone reservations will be accepted.

**A letter from your department head certifying your resident status must accompany your registration form.

Make checks payable to: AAP

Mail fee and completed form to:
American Association of Pathologists
9650 Rockville Pike
Bethesda, MD 20814

*FEE ENCLOSED:
AAP MEMBER @ $350 _______
USCAP MEMBER @ $350 _______
NONMEMBER @ $425 _______
**RESIDENT @ $350 _______