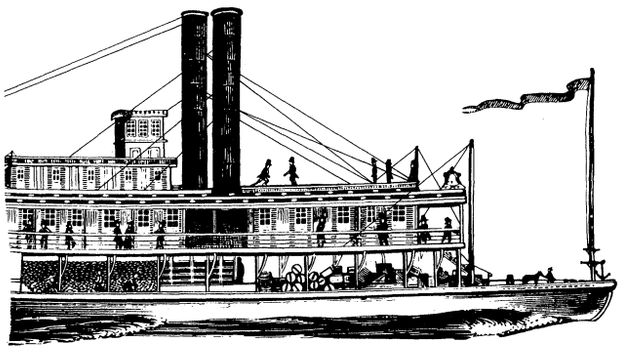

AAAS Annual Meeting Planner

New Orleans, 15 – 20 February 1990

As February approaches, with its blustery winds and icy sleet, look toward the brighter side — the AAAS Annual Meeting! This year, the meeting will not only be on the brighter side, but also on the warmer, jazzier side — in New Orleans!

When you plan your personal meeting agenda, you'll face a number of important decisions. Do you attend a three-day seminar focusing on one subject area, or should you choose sessions covering a diverse array of topics? Will you spend Sunday afternoon learning about a subject directly related to your work, or would you rather focus on the bigger science picture?

Do you want to hear a jazz act at Preservation Hall, or would you prefer a spontaneous performance on Bourbon Street? Should dinner be a coat-and-tie affair, or would you rather roll up your sleeves and dig into a bucket of boiled crawfish?

To help you confront all of your meeting-related decisions in a fully informed manner, we've put together this special Meeting Planner for you. Use it to make the most of your time both at the meeting and in New Orleans.

We've provided a schedule of major **plenary lectures** by eminent scholars from around the world. There's also expanded information on our **three-day seminars** on protein folding and on the biology of parasitism, including the final call for seminar papers. In addition, you'll find information about one-day **short courses** on chaos and on computer simulation.

For a clear picture of the complete selection of **symposia, workshops,** and **technical** sessions, take a look at the two-page chart that lists them all chronologically.

And, to start you thinking about how to spend your after-meeting hours, we tell you about many of **New Orleans' attractions** in the way of food, sights, and entertainment.

So plan now to make the most of the time you spend with us in February on the banks of the Mississippi. (In case you haven't registered yet, advance registration and hotel reservation forms are included on the facing page.)

We'll see you there!

— Arthur Herschman

Plenary Lectures

Thursday, 15 February

8:30 pm, Keynote Address: (To be announced)

Friday, 16 February

1:00 pm: The Impact of Molecular Biology on Vaccine Development: The Malaria Case, **Victor Nussenzweig** *(New York Univ. Medical Center)*

1:00 pm, Carey Lecture: **David A. Hamburg** *(President, Carnegie Corp.)*

8:30 pm: Science and Technology in the Bush Administration, **D. Allan Bromley** *(Director, Office of Science and Technology Policy)*

Saturday, 17 February

1:00 pm, Sarton Lecture: Officially Encouraged, Institutionally Discouraged: Women in Science, 1940 – 1968, **Margaret W. Rossiter** *(History and Philosophy of Science, Cornell Univ.)*

1:00 pm: Mechanisms of Cooperativity and Allosteric Regulation in Proteins, **Max F. Perutz** *(Medical Research Council, Cambridge, UK)*

8:30 pm: Immunopathogenic Mechanisms of Human Immunodeficiency Virus Infection, **Anthony S. Fauci** *(Director, National Inst. of Allergy and Infectious Diseases)*

Sunday, 18 February

1:00 pm: Quality Education for Minorities and the American Future, **Ray Marshall** *(LBJ School, Univ. of Texas - Austin)*

1:00 pm, Waterman Lecture: Multiple Regulatory Mechanisms Govern Egg-Laying Behavior in the Marine Snail *Aplysia*, **Richard H. Scheller** *(Stanford Univ.)*

8:30 pm, AAAS President's Lecture: The Human Resources Crisis in Science: Can It Be Averted? Can It Be Resolved? **Richard C. Atkinson** *(Chancellor, UC-San Diego)*

Monday, 19 February

1:00 pm: Food Safety and Food Labeling: Top Priority at the FDA, **Frank E. Young** *(Commissioner, Food and Drug Administration)*

1:00 pm: Global Warming and Recent Climate Change: Observations and Modeling, **Kevin E. Trenberth** *(National Center for Atmospheric Research)*

8:30 pm: Monitoring Earth from Space, **Sally K. Ride** *(Director, California Space Institute, UC - San Diego)*

Tuesday, 20 February

1:00 pm: Turning Points: Preparing American Youth for the 21st Century, **David Hornbeck** *(Carnegie Council on Adolescent Development)*

1:00 pm, McGovern Lecture: Brain Representations and the Construction of Reality, **Vernon B. Mountcastle** *(Johns Hopkins Univ. School of Medicine)*

Three-Day Seminars

In planning your time at the 1990 AAAS Annual Meeting, you may want to consider either of two special seminars which are being offered — **Protein Folding** and **The Biology of Parasitism**. Each seminar runs three days, from Friday through Sunday (16 – 18 February), and includes presentations by more than 20 leading researchers in their respective fields. A separate registration fee is required *(see advance registration form at the beginning of this Meeting Planner).*

Protein Folding: This seminar focuses on attempts to understand the process of protein folding. Such an understanding, when achieved, will enable future "protein engineers" to efficiently produce properly folded proteins that can be used in the development of new biocatalysts, pharmaceuticals, biomaterials, and other biotechnology products. If you're a biologist, biochemist, geneticist, chemist, physicist, mathematician, chemical engineer, or even a cryptographer, you'll find various aspects of the protein folding problem to be relevant to your discipline.

The Biology of Parasitism : This seminar focuses on parasitic diseases, which may represent the foremost threat to human health today. In the last decade, we have witnessed an unprecedented progress in our knowledge of the biology of parasites. This seminar provides an opportunity for participants from various disciplines to join in reviewing the recent advances in our understanding of parasites. Registrants will hear from researchers who are actively studying ways of eliciting specific immune responses to parasitic infections. They'll also learn of many unique metabolic activities in the parasites which may eventually be exploited as targets for antiparasitic chemotherapy.

The complete program of each seminar appears below.

Call for Seminar Papers: All seminar registrants are invited and encouraged to submit abstracts for the poster sessions at their respective seminars where they will have the opportunity to share their own work with other participants. **The deadline for seminar abstracts has been extended to 22 December 1989.** For complete instructions, see the 1 September 1989 issue of *Science* (page 989).

Note: The deadline extension applies only to *seminar registrants* who submit abstracts for one of the two *seminar* poster sessions.

Protein Folding Seminar

Organizers: **Barry T. Nall** *(Univ. of Texas Health Science Center - San Antonio)* and **Ken A. Dill** *(UC - San Francisco)*

Protein Stability *(Friday, 8:30 am).* Presiding: **Anthony L. Fink** *(UC - Santa Cruz)*

Conformational Stability of Ribonuclease T1 — **C. Nick Pace** *(Texas A&M)*; Teaching Proteins to Fold — **Paul M. Horowitz** *(Univ. of Texas Health Science Center - San Antonio)*; The Folding and Refolding of Mutant T4 Lysozyme at Low Temperatures — **John Schellman** *(Univ. of Oregon);* Using Subunit Interactions to Probe the Molecular Logic of Hemoglobin — **Gary Ackers** *(Washington Univ. School of Med.)*; On the Origins of Secondary Structure in Globular Proteins — **Hue Sun Chan** *(UC - San Francisco)*

Structural Methods *(Friday, 2:30 pm).* Presiding: **Thomas O. Baldwin** *(Texas A&M)*

Advances in Tools for Macromolecular Crystallography: Synchrotrons, Detectors, Computers, and Recombinant DNA — **Wayne A. Hendrickson** *(Columbia Univ.);* Structural Characterization of Natural and Synthetic Peptides by NMR — **David E. Wemmer** *(UC - Berkeley);* Solution Structures of Trypsin Inhibitor Mutants by NMR: Implications for Protein Folding — **Irwin D. Kuntz** *(UC-San Francisco);* Racemization and Its Effect on Protein Structure and Functionality — **Jeffrey L. Bada** *(Scripps Institution of Oceanography);* Protein Structure by 2D and 3D NMR — **Angela M. Gronenborn** *(NIH)*

Electrostatics and Protein Structure and Folding *(Saturday, 8:30 am).* Presiding: **Ken A. Dill**

Computer Simulations of Protein Folding and Unfold-

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The Biology of Parasitism Seminar

Organizer: **C.C. Wang** *(UC - San Francisco)*

Diagnosis of Chagas' Diseases and Leishmaniasis *(Friday, 8:30 am).* Presiding: **Dyann Wirth** *(Harvard School for Public Health)*

Molecular Biology in Diagnosis of Chagas' Disease — **Wim Degrave** *(Fiocruz, Rio de Janeiro, Brazil);* Molecular Diagnosis of Leishmaniasis — **Dyann Wirth;** Variations of Surface Antigens on *Trypanosoma cruzi* During Development — **Jerry E. Manning** *(UC - Irving);* Gene Expression in Development of *Trypanosoma cruzi* — **Samuel Goldenberg** *(Fiocruz, Rio de Janeiro, Brazil)*

Plenary Lecture *(Friday, 1:00 pm).*

The Impact of Molecular Biology on Vaccine Development: The Malaria Case — **Victor Nussenzweig** *(New York Univ. Medical Center)*

Immune Mechanisms of Parasite Killing *(Friday, 2:30 pm).* Presiding: **Anthony Cerami** *(Rockefeller Univ.)*

Immunomodulation of Leishmania Infection — **Richard M. Locksley** *(UC-San Francisco);* The Monokines — **Anthony Cerami;** T-Cell Regulation of Schistosome Immunity and Pathology — **F. Alan Sher** *(NIH);* Immunity to Filariasis — **Thomas R. Klei** *(LSU)*

Cellular Immunity in Parasite Infections *(Saturday, 8:30 am).* Presiding: **Carole A. Long** *(Hahnemann Univ.)*

Immunoregulation by Helper T-Cell Subsets in Parasite Infections — **Robert L. Coffman** *(DNAX Research Inst.);* T-Cell

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Short Courses

AAAS will offer two short courses at the 1990 Annual Meeting — **Chaotic Dynamical Systems** and **Computer Simulation for Biomedical Scientists.** Each of these courses, which will be on Thursday, 15 February, will emphasize learning new skills through step-by-step instruction. A separate registration fee is required *(see the advance registration form at the beginning of this Meeting Planner).*

Chaotic Dynamical Systems *(Thursday).* Organized by **Robert L. Devaney** *(Boston Univ.)*

Instruction in how to apply some of the new mathematical tools that can be used to analyze chaotic behavior. Topics include the period doubling route to chaos, higher dimensional dynamical phenomena, strange attractors, fractal basin boundaries, and bifurcations. *This course consists of two half-day sessions.* ***9:00 am:*** Dynamics of One-Dimensional Maps, **Robert L. Devaney;** Stable and Unstable Chaos in Planar Maps — Hénon's Attractor and Smale's Horseshoe, **Paul Blanchard** *(Boston Univ.).* ***1:30 pm:*** Attractors and Their Basin Boundaries, **Kathleen T. Alligood** *(George Mason Univ.);* The Lorenz Attractor, **Robert F. Williams** *(Univ. of Texas - Austin).*

Computer Simulation for Biomedical Scientists *(Thursday).* Organized by **Michael C. Kohn** *(Duke Univ.)* and **Michael D. Feezor** *(Duke Univ.)*

Hands-on training in the use of personal computers to define, create, and run mathematical models for biomedicine. PCs will be provided so that registrants will have the opportunity to create their own models. Topics include the mathematics of simulation, sensitivity to uncertainties, graphing results, and analyzing model behavior. *This course consists of a single half-day session.* ***9:00 am:*** Using the SCoP Software Package to Develop a Model of Drug Metabolism, **Michael C. Kohn** and **Michael D. Feezor.**

Over 200 General Sessions

The 1990 AAAS Annual Meeting will feature more than 200 general sessions — symposia, technical sessions, and workshops — covering topics in all of the physical, life, and social sciences, with a major concentration in the biological and medical sciences, an extensive treatment of global change, and an in-depth examination of challenges in science education and human resources.

To help you plan your time at the meeting, a chronological chart, listing all general sessions, is provided on the next two pages.

Use the session chart on the next two pages to plan your own meeting agenda.

The New Orleans Experience

The 1990 AAAS Annual Meeting is being held in the home of Cajun cooking, the birthplace of jazz — New Orleans! So get ready to experience the dizzying kaleidoscope of sights, music, food, and culture that gives this city its unique charm.

The Sights: When in New Orleans (or "Nawlins" as some locals say), a stroll through the French Quarter is a must. Soak in the old world aura of the cobblestone streets, wrought-iron balconies, horse-drawn carriages, and dimly lit pubs. Wander around Jackson Square, the hub of the Quarter, where you can see artisans, mimes, street musicians, and tap-dancing children. Stop into Cafe du Monde for cafe au lait and beignets (square doughnuts, no hole, lots of powdered sugar). Enjoy the colorful costumes and music of the city's pre–Mardi Gras festivities. (Fat Tuesday is February 27th, one week after the AAAS Annual Meeting ends.)

And there's a whole different part of New Orleans to be explored when you hop aboard the St. Charles streetcar, the oldest continuously operating street railway system in existence. As you ride along St. Charles Avenue, you'll enjoy the beauty of the mansion-filled Garden District, the campuses of Tulane and Loyola Universities, and the Audubon Park and Zoo.

The Sounds: The music of New Orleans — jazz, Dixieland, rhythm and blues — is an essential part of any visit. Actually, it's difficult to avoid the music in this city! You can choose to attend a jazz performances at the landmark Preservation Hall or at one of the newer jazz halls. Or, you can get your music fix in a more spontaneous fashion as you wander the streets of the French Quarter. There, you'll no doubt encounter a lone sax player blowing a soulful melody on one corner and see a Dixieland band around the next. You'll also hear a melting pot of musical traditions spilling out of the many clubs and pubs scattered throughout the area.

The Tastes: And the food...oh, the food! Crawfish, jambalaya, gumbo, muffuletta, po'boys, red beans & rice, pralines, Oysters Rockefeller, bread pudding in whis-

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"Pirate's Alley" in New Orleans, by Joseph A. Arrigo

Symposia, Technical Sessions, and Workshops*

		Friday, 16 February	Saturday, 17 February	Sunday, 18 February	Monday, 19 February	Tuesday, 20 February
NATURAL SCIENCES AND TECHNOLOGY	*General*	**PM:** Symmetries Across the Sciences.	**AM:** Maintaining Integrity - Law and Misconduct in Science.		**AM/PM:** Frontiers of the Physical Sciences 1990.	**AM:** Exploring the Living Universe Utilizing Space for Biological Research.
	Medicine and Health	**AM:** Racial Differences in Hypertension. **PM:** Substance Abuse Effects in Women. **PM:** Meta-analysis in Health & Medicine.	**AM:** New Insight into Exercise Physiology. **AM/PM:** Progress in AIDS Treatment. **PM:** Health Professionals, Med. Ethics, Human Rights in Prisons.	**AM:** Dental Implants. **AM/PM:** Reducing Cardiovascular Disease. **PM:** Quality Health Care: Cost Effectiveness and Competition.	**AM/PM:** Food Safety and Food Labeling.	**PM:** Cochlear Implants in Children.
	Biomedical Research	**AM:** Nonprimate Lentiviruses: Models for AIDS. **PM:** Simian AIDS Model: Vaccines & Therapy.	**AM:** Mapping and Sequencing the Human Genome. **PM:** New Biology and Nutrition.	**AM/PM:** The Use of Animals in Biomedical Research.	**AM:** Hypothalamus-Pituitary-Adrenal-Immune Axis. **PM:** Patient-Oriented Research: An Unremitting Record of Successes.	**AM:** Genetic Controls of Metabolic Regulation. **AM/PM:** Neurotransplants.
	Evolution		**PM:** Early Life on Earth: The Rock Record.	**AM:** Emergence of Modern Humans: Genes, Fossils, and Behavior. **PM:** Fossil Evidence for Eve.	**AM:** Symbiosis as a Major Source of Evolutionary Novelty. **PM:** Evolution of Microtubule Systems and Mitosis.	**AM:** Pollen and Sperm Competition: The Importance of the Haploid.
	Geosciences; Natural Hazards	**AM:** Research in Solid Earth Sciences.	**AM:** Managing Outer Continental Shelf Oil and Gas Resources. **PM:** Improved Recovery of Oil and Gas from Existing Fields.	**AM:** International Decade of Natural Disaster Reduction. **PM:** Earthquake Hazard and Risk Assessment in Central United States.	**AM:** Geological Impact of Hurricanes. **PM:** The California Earthquake of '89. **PM:** Groundwater Contamination in the Southeastern United States.	**AM:** Factors Influencing Responses to Deliberate and Inadvertent Weather Modification.
	Chemistry; Biotechnology	**AM:** Frontiers: Chemistry of Clusters. **PM:** Frontiers: Photochemistry.	**PM:** The Cold Fusion Case: Ethics and Politics of Scientific Competition.	**AM:** Frontiers: Chlorofluorocarbons and Atmospheric Science. **PM:** Medicinal Plants for the Americas: Chemistry, Uses, Prospects.	**AM:** Directions in Animal Biotechnology. **PM:** Biodetection: Biotechnology Applications in the Environment.	**AM:** Economic Perspectives on Biotechnological Applications.
	Physics; Astronomy; Engineering	**AM:** Engineered Systems & Human Factors: Nuclear Experience. **PM:** International Advanced Nuclear Power Concepts.	**PM:** New Technology for People with Disabilities.	**AM:** Supernova 1987A. **PM:** Particle Accelerators of the Future.	**AM:** Physics Instrumentation for Science and Technology. **PM:** High Temperature Superconductors. **PM:** Prof. Integrity and Engineering Ethics.	**AM:** Current Topics in Physical Acoustics.
	Mathematics and Computing	**AM:** Intellectual Property Rights: Computer Software & Hardware. **AM:** Math. Methods in Social Sciences. **PM:** Computing Research.	**AM:** The Computational Paradigm in Science and Engineering. **PM:** Supercomputing and Science: Improving the Quality of Life.	**AM:** Understanding Computer Viruses. **PM:** Computational and Mathematical Modeling: Oil Production and Water Resources.	**AM:** Radon and Penrose Transforms: Medical Imaging to Supersymmetry. **PM:** Geometry Today.	**AM:** Zero Knowledge Proofs and Their Applications.
	Popular Science	**AM:** Science, Culture & Cajun Cooking.	**AM/PM:** Science for the Naked Eye or, the Physics of Everyday Experience, XVII.	**AM/PM:** Creatures That Fly: Birds, Bats, Bees, and Bugs.	**AM:** Chemistry Is Fun! **PM:** High Technology and Future Automobiles and Highway Systems.	
GLOBAL CHANGE	*General Issues; Population*	**AM:** Humans & Global Environmental Change. **PM:** Cultural Change & Population Growth.	**AM:** Women: Econ. & Demographic Develop. in the Low-Income World. **PM:** Effects of Human Population Growth on Human Environments.	**AM/PM:** Science, Policy, and Value Issues in Global Environmental Change.	**AM:** Global Change: Scientific and Public Perceptions. **PM:** Science Cooperation in the Pacific.	
	Climate; Global Warming	**AM:** Climate Change: Science/Policy. **PM:** Energy Policy & Greenhouse Effect.	**AM/PM:** Climate Change in the Western Hemisphere: 40° N – 40° S.	**AM/PM:** Global Warming: Economic Impacts and Policy Issues.	**AM:** Media Coverage of Drought as a Symptom of Climate Change. **AM/PM:** Climate Change: Models and Policies.	**PM:** Climate and Culture: The Response of Chaco Canyon People to Climate Change.
	Oceans, Rivers, Coasts	**AM/PM:** Food Chains & Large Marine Ecosystems.	**AM/PM:** Coastal Land Loss in Louisiana.	**AM/PM:** The Mississippi River System, Resource, Hazard.	**AM:** Sea-Level Rise as a Global Geomorphic Issue. **PM:** Riparian Resources in Arid Lands.	**AM:** Changes in Worldwide Riverine Inputs: How Do Coastal Oceans Respond? **AM/PM:** Scientific Opportunities in Offshore Technology.

GLOBAL CHANGE	***Ecology; Biological Diversity***	**AM/PM**: Molecular Studies of Biological Diversity	**AM**: Biological Diversity in Southeastern United States	**AM/PM** Biodiversity in Marine and Terrestrial Habitats	**AM**: Chaos in the Balance of Nature	**AM**: Arid Lands Wilderness or Wasteland? **AM**: Biological Diversity and Agriculture
	Tropical Forests; Forestry	**AM/PM**: Social Science & Environmental Management	**AM**: Social Science & Environmental Management **PM**: Amazonia. A Dynamic Habitat Past. Present. and Future	**AM/PM**: Amazonia A Dynamic Habitat Past Present. and Future	**AM/PM**: Tropical Forest Regeneration Development and Conservation	**AM**: Advances in Forest Science
	Agriculture; Food	**AM**: U S Aquaculture **PM**: Shrimp Aquaculture Latin American Impacts	**AM**: Beyond the Large Farm Ethics and Agricultural Research **AM**: Fisheries Management and Policy **PM**: Biological Control of Plant Diseases	**AM** Mycoherbicides Biological Control of Weeds **AM** Intellectual Property Rights Plants and Animals **PM** Biological Control of Insects	**AM/PM**: Sustainable Agriculture Definitions and Impacts	**AM**: Agricultural Biotechnology Social and Ethical Issues
	Environmental Concerns	**AM**: Pesticides Developing Countries **PM**: Agricultural Chemicals & Water Quality	**AM**: Environ Health Effects of Agrochemicals **PM**: Foreign Assistance & Environ Probs in Developing Countries **PM**: Science & Environ Law	**AM/PM** Two Decades of Environmentalism **PM** International Environmental Reporting	**AM**: Human Response to Physical Systems Extremes **AM/PM**: Chemical Emissions to Air, Water, and Soil Science, Data, and Policy	**AM**: Risks of Halogenated Hydrocarbons in the Environment
SOCIAL SCIENCES AND SCIENCE POLICY	***Human Resources***	**AM**: Expanding Participation in Science & Engineering **AM**: Choosing Careers Medicine **PM**: Marginalization & Creativity in Science	**AM**: Expanding Science Engineering Talent Pool **AM**: NSF Fellowship Program **PM**: The Changing Nature of Graduate Education in the Sciences	**AM** Expanding the Science and Engineering Talent Pool **AM/PM** Surviving Graduate School **PM** Job Hunting Skills **PM** Science for Minorities	**AM/PM**: Senior Scientists and Engineers as Volunteers	**AM**: Science as a Vocation Prospects of Young Scientists **PM**: Women Scientists in Early Career Years Strategies for Success
	Behavioral Sciences; Gender Studies	**AM**: Genes, Environment & Human Behavior **PM**: Emotion & Developing Brain	**AM**: Empathy in Infancy and Later Development **PM**: New Developments in the Genetics of Mental Illness	**AM** Human Sexuality An Interdisciplinary Perspective **PM** Surveying Sexual Behavior	**AM**: The Psychology of Jury Decision Making	
	Anthropology and Archaeology; Racial Studies	**AM/PM**: Evolutionary Biology & Human Behavior Race & Gender			**PM**: How Archaeologists Know Interdisciplinary Methods for Archaeological Problems	**AM**: A Different World The Mississippi Valley Before 1492
	Sociology; Political Science; Aging	**PM**: Teenage Pregnancy	**AM**: Aging Processes Phylogenetic and Cognitive Approaches	**AM** Intergenerational Relations and Family Support Networks **PM** Reapportionment and Redistricting for the 1990s Politics & Data	**AM**: *Perestroika* and Scientific Freedom in the Soviet Union **PM**: Democracy and Science in Latin Amenca	**AM**: Social Science and Public Policy
	Economics and Industry; Communications	**PM**: "Informatization" of the USSR	**AM**: Scientists and the Current Crisis in Science Libraries **PM**: Computer Networking. Education. and International Relations	**AM** American Competitiveness Since the Dollar's Fall What Policies? **PM** Information Technologies for Competitiveness of Service Firms	**AM**: University Industry Ties Blessings and Headaches **PM**: Writing Strategies for Scientists and Engineers	**AM**: Current Issues in the Geographical Distribution of Federal Research Funding **PM**: Technology and Trade Policy
	Arms Control	**AM**: Threshold Test Ban Limit Verification	**AM**: Arms Control Verification Progress and Challenges **PM**: The Iran Iraq War Mediation and Conflict Resolution	**AM** Chemical Weapons Proliferation or Chemical Disarmament? **PM** Living with the ABM Treaty in the 1990s	**AM**: Ballistic Missiles Policy Options for the Future **PM**: Deep Cuts in European Forces NATO/Warsaw Pact Agreement?	
	History and Philosophy of Science	**AM**: Rhetoric of Science **AM/PM**: R A Fisher's Contributions	**AM**: Universe in Philosophical Perspective **PM**: Researching Controversial Religious Groups	**AM** Rediscovery of Alexandria Science Religion, and the Churches **PM** Young Einstein	**PM**: Metaphors in Science Their Role in Theory and Discovery	**PM**: New Directions in the Philosophy of Mathematics
	Education, General	**AM**: Japan & US Pre adult Attitudes Toward Science & Math	**AM**: Science Education in Latin America **PM**: Revitalizing Science and Engineering Education Through New Uses of Technology	**AM** Assessing Scientific Literacy **PM** Scientific Writing Recommendations and Resources	**AM**: Value to Scientific Literacy of Science Trade Books for Children **PM**: What's Going On in the World of Science Museums?	**AM**: Scientist Teacher Partnerships in Middle School Science and Technology Education **PM**: Science and Science Fiction
	Education, Curricula	**AM**: Geological Sciences in Science Education **PM**: Fifteen Years of Marine Education	**AM**: Reform of Secondary School Science **PM**: Developing New Curricula for Calculus. Physics. and Chemistry	**AM** Beyond the Textbook New Models for Learning Biology **PM** Innovations in the Undergraduate Science Curriculum		**AM**: Quantitative Literacy Probability and Statistics in the Curriculum

*Time Key: **AM** = 8:30 am – 11:30 am; **PM** = 2:30 pm – 5:30 pm.; *Thursday (15 February) sessions:* **AM**: Reflections on Science Encounters 1990. **AM/PM**: Environmental Risk Reporting: The Science and the Coverage.

Protein Folding Seminar

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ing — **Michael Levitt** *(Stanford Univ. Medical School);* Electrostatic Effects in Protein Structure and Function — **Barry Honig** *(Columbia Univ.);* Ionic Charge Effects on Folded and Unfolded Proteins — **Dirk Stigter** *(UC - San Francisco);* Molecular Dynamic Effects on Protein Electrostatics — **James B. Matthew** *(ICI Pharmaceuticals Group);* Electrostatic Effects and Allosteric Regulation in *E. coli* Aspartate Transcarbamylase — **Norma M. Allewell** *(Wesleyan Univ.)*

Plenary Lecture *(Saturday, 1:00 pm).*

Mechanisms of Cooperativity and Allosteric Regulation in Proteins — **Max F. Perutz** *(Medical Research Council, Cambridge, UK)*

Relation of Amino Acid Sequence to Structure and Folding *(Saturday, 2:30 pm).* Presiding: **Jonathan King** *(MIT)*

Searching for the Folding Information in Protein Sequences — **Robert T. Sauer** *(MIT);* Structural Mutants That Mimic Oxidation State Changes in Cytochrome *c* — **Gary Brayer** *(Univ. of British Columbia);* Can Molecular Evolution Provide Clues to the Folding Code? — **Stephen C. Hardies** *(Univ. of Texas Health Science Center - San Antonio);* Relationships of Sequence to Function of Yeast Iso-1-cytochrome *c* — **Fred Sherman** *(Univ. of Rochester School of Medicine and Dentistry);* The Tryptophan Synthase $\alpha_2\beta_2$ Multienzyme Complex: Relationship of the Amino Acid Sequence and Folding Domains to the 3-Dimensional Structure — **Edith Wilson Miles** *(NIH)*

Folding Mechanisms *(Sunday, 8:30 am).* Presiding: **C. Nick Pace**

Folding Studies of *E. coli* Dihydrofolate Reductase — **Carl Frieden** *(Washington Univ. School of Medicine);* Denatured States of Proteins — **Anthony L. Fink** *(UC - Santa Cruz);* Structure of Early Intermediates in Ubiquitin Folding — **Martha S. Briggs** *(Georgia Inst. of Technology);* Characterization of the Unfolded and Partially Folded States of Proteins by NMR Spectroscopy — **Christopher M. Dobson** *(Oxford Univ., UK);* Mechanism of Protein Folding — **O.B. Ptitsyn** *(Inst. of Protein Research, Academy of Sciences, USSR)*

Auxiliary Factors in Folding *(Sunday, 2:30 pm).* Presiding: **Mary-Jane Gething** *(Univ. of Texas Southwestern Medical Center)*

Protein Disulfide-Isomerase: A Catalyst of the Folding of Disulfide-bonded Proteins in the Test Tube and in the Cell — **Robert B. Freedman** *(Univ. of Kent - Canterbury, UK);* Prolyl Isomerase: Enzymatic Catalysis of Slow Steps in Protein Folding — **Franz X. Schmid** *(Universitat Bayreuth, West Germany);* Protein Folding in the Endoplasmic Reticulum — **Mary-Jane Gething;** Alternate Folding Motifs for the Gramicidin Channel: Crystallographic Analysis of Polymorphism — **Bonnie Ann Wallace** *(Rensselaer Polytechnic Inst.);* Closing Comments — **George D. Rose** *(Penn State College of Medicine)*

Poster Session *(date and time to be announced).* Chairs: **Christy MacKinnon** *(Univ. of Texas Health Science Center - San Antonio)* and ***Delphia Hamill*** *(Incarnate Word College)*

The Biology of Parasitism

(continued from page 1054)

Functions and Autoimmunity in Chagas' Diseases — **Ricardo Ribeiro-dos-Santos** *(Fiocruz, Rio de Janeiro, Brazil);* Cellular Immunity to Malaria — **Carole A. Long;** Regulation of Lymphokine Production in Experimental and Human Chagas' Disease — **Rick L. Tarleton** *(Univ. of Georgia);* Cellular Immunity to Schistosomiasis — **Barbara L. Doughty** *(Texas A&M)*

Chemotherapy of Parasite Infections *(Saturday, 2:30 pm).* Presiding: **C.C. Wang**

Trypanothione Metabolism in the Chemotherapy of Trypanosomiasis and Leishmaniasis — **Alan Fairlamb** *(London School of Tropical Medicine and Hygiene, UK);* Metabolism and Mode of Anti-*T. cruzi* Action of Gentian Violet — **Roberto Docampo** *(Rockefeller Univ.);* The Glycosomes of *Trypanosoma* and *Leishmania* — **Fred R. Opperdoes** *(International Inst. of Cellular and Molecular Pathology, Brussels, Belgium);* Ornithine Decarboxylase in Trypanosomes — **C.C. Wang;** Drug Resistance in Malarial Parasites — **Wilbur K. Milhous** *(Walter Reed Army Inst. of Research)*

Surface Antigens of Parasites *(Sunday, 8:30 am).* Presiding: **Paul T. Englund** *(Johns Hopkins School of Medicine)*

The Glycolipid Anchor of Variant Surface Glycoproteins in African Trypanosomes — **Paul T. Englund;** The Role of the Surface Protease, gp63, in the Survival of *Leishmania* Parasites — **David G. Russell** *(NYU Medical Center);* Procyclic Surface Antigen of *Trypanosoma brucei* — **Christine E. Clayton** *(Rockefeller Univ.);* The Surface Proteoglycans of Leishmania — **David Sacks** *(NIAID);* The Surface Antigens of Schistosomes — **Mette Strand** *(Johns Hopkins School of Medicine)*

Molecular Biology of Parasites *(Sunday, 2:30 pm).* Presiding: **Larry Simpson** *(UCLA)*

RNA Editing: A Novel RNA Processing Phenomenon in Trypanosome Mitochondria — **Larry Simpson;** RNA Trans-splicing in Parasitic Helminths — **Timothy W. Nilsen** *(Case Western Reserve Univ.);* Gene Amplification and Genetic Analysis in Leishmania — **Stephen Beverly** *(Harvard School of Medicine);* Molecular Biology of Trypanosomes and Leishmania — **Jeffrey V. Ravetch** *(Sloan Kettering).*

Poster Session *(date and time to be announced)*

Discount Air Fares to New Orleans

United Airlines and Delta Air Lines offer the following special discount fares to the Annual Meeting in New Orleans for travel during 10-25 February 1990:

- ✦ **5% off** lowest published round-trip fares, subject to availability and qualifying conditions, and 5% off first class (not available in Canada).
- ✦ **40% off** regular round-trip fares; no minimum stay, no advance purchase required (in Canada, discounts up to 35% only).

These discounts are available only through the airlines' convention reservation desks, and seats may be limited. For details, you or your travel agent should call one of the toll-free numbers listed here and refer to the appropriate convention code number:

United Airlines:

Convention Code 0004D. In the USA (incl. HI, AK) or Canada, call 7 days a week, 8:00 am – 11:00 pm Eastern time: 1-800-521-4041.

Delta Air Lines:

Convention Code R0030. In the USA (incl. HI, AK, PR), call 7 days a week; 8:00 am – 8:00 pm Eastern time: 1-800-241-6760. In Canada, call Delta locally.

General Meeting Information

Location: Sessions will be in the New Orleans Hilton & Towers and across the street in the Rivergate Exhibition Center, which will also house the AAAS Science & Technology Exhibition. Some functions will be at the Holiday Inn Crowne Plaza, one block away.

Housing: Reduced-rate guest rooms are available at the Hilton and Holiday Inn if you use the form on the following page and return it to the appropriate hotel by 13 January.

Registration: Reduced-rate registration for the Meeting is available if you use the form on the following page and return it to the address shown by 12 January. Your registration badge and a voucher for the Meeting Program will be mailed by mid-January. The voucher can be redeemed at the Meeting registration desk in the Convention Lobby of the Hilton: Thur., 15 Feb., noon – 7:00 pm; Fri. – Mon., 16 – 19 Feb., 8:00 am – 6:00 pm; or Tues., 20 Feb., 8:00 am – noon. Refunds for advance registration cancellations, requested by letter, telegram, or FAX (202/289-4021) and received by AAAS no later than 6 February, will be issued after 21 February.

Transportation: Reduced-rate air fares are available on United and Delta; see notice above. Airport vans leave from the baggage claim areas of the airlines every 15 – 20 minutes and go to the Hilton and Holiday Inn ($7 one way). Taxis take about 30 minutes to the hotels (flat rate $18). Within New Orleans, street cars and buses, including a special riverfront street car between the Hilton and French Quarter, are available at 60¢ (exact change). Parking is available at the Hilton and Holiday Inn for about $5/day (no in/out privileges); valet parking with in/out privileges is available at a higher fee.

Other Services: **Child care** from a licensed agency is available to registered guests at each hotel; 24-hour advance notice is required. **Messages** may be left at the Message Center in the registration area (ask for AAAS Message Center at 504/561-0500). **Employment information,** either "position available" or "position wanted," may be posted on designated bulletin boards. A **Resource Room for the Disabled** will be available in the Hilton (Prince of Wales, 2nd floor); if you require special services due to a disability, list your needs on your hotel reservation form and on your advance meeting registration form, or contact the AAAS Project on Science, Technology, and Disability (202/326-6667; TTY available).

Steamboat Nachez *on the Mississippi (courtesy of Greater New Orleans Tourist & Convention Commission)*

The New Orleans Experience

(continued from page 1055)

key sauce: these are just a few of the dishes that make up the Creole and Cajun cuisines that are indigenous to Louisiana. Attending the AAAS Annual Meeting, you'll probably spend five days in New Orleans — that's 15 meals, but it may not be enough. Everywhere you turn, you'll find great restaurants to try — some elegant establishments, some real "dives," but all serving wonderful food. (A tip about New Orleans restaurants: Although eating establishments abound, they are also very busy, so make your dinner reservations well in advance! To help you, there will be a reservation service available in the convention hall.)

And More: Take a riverboat ride along the mighty Mississippi on the *Natchez* or the *Creole Queen.* Go on a boat tour of a cypress swamp. Hike through the trails of the Louisiana Nature and Science Center. The list of exciting things to do is so long that you might consider extending your stay beyond the meeting!

So come to the AAAS Annual Meeting in New Orleans and enjoy a feast of stimulating ideas, scrumptious food, rich culture, and home-grown music. What more could you possibly want?

Access to AGU/ ASLO Meeting

Registrants of the AAAS Annual Meeting will also have free access to the combined meeting in New Orleans of the **American Geophysical Union** and the **American Society of Limnology and Oceanography** (12 – 16 February 1990).

Just register for the AAAS Annual Meeting by mail before the 12 January deadline, and you'll receive your AAAS registration badge in time to use it for the AGU/ASLO conference. (Those who register after this date will not obtain their badges until after AAAS on-site registration begins on 15 February.)

Register now! Use the forms on page 1052.