# AAAS Annual Meeting

# Detroit, 21–31 May 1983 Science and Engineering: Toward a National Renaissance

# Preliminary Program

#### **Public Lectures**

AAAS Keynote Lecture (26 May, 8:30 p.m.).

DAVID ADAMANY (President, Wayne State University).

Brain Peptides: What, Where, and Why? (27 May, 1:30 p.m.). DOROTHY T. KRIEGER (Professor of Medicine; Director, Division of Endocrinology, The Mount Sinai Medical Center).

George Sarton Memorial Lecture. Sealing Wax and String: A Philosophy of the Experimenter's Craft and Its Role in the Genesis of High Technology (27 May, 8:30 p.m.).

**DEREK DESOLLA PRICE** (Avalon Professor of the History of Science, Yale University).

#### Phi Beta Kappa Lecture (28 May, 1:30 p.m.).

THEODORE T. PUCK (Director, Institute for Cancer Research, University of Colorado).

**Topic to be announced** (28 May, 8:30 p.m.). GERALD M. EDELMAN (Vincent Astor Distinguished Professor, Rockefeller University).

#### Topic and speaker to be announced (29 May, 1:30 p.m.).

AAAS President's Lecture (29 May, 8:30 p.m.). E. MARGARET BURBIDGE (Director, Center for Astrophysics and Space Science, University of California–San Diego).

Prospects and Progress in High-Energy Physics (30 May, 1:30 p.m.).

LEON M. LEDERMAN (Director, Fermi National Accelerator Laboratory).

National Geographic Society Lecture (30 May, 8:30 p.m.). SARA C. BISEL (A Collaborator of the Smithsonian Institution).

#### 1. General Interest

Annual Youth Symposium (26 May).

Automation: The Economy and Jobs (27 May): Technical, economic, and social aspects.

Frontiers in the Social Sciences (27 May): Adaptation, resource conservation, relocation and development.

**Frontiers of the Natural Sciences (28 May):** Astronomy, physics, chemistry, geology, biology, and mathematics.

Global 2000 Revised (29 May): Minerals, forests, water, population, energy, pollution, climate.

Alternative Energy for Transportation (30 May): Methanol, compressed/liquid gas, hydrogen, fuel cells, hybrids.

#### 2. Physical Sciences

Implementations of Monoenergetic Positrons in Fundamental

and Applied Science (27 May): Polarization, pulsed beams, surface and gas studies.

Chemistry Is Fun! (27 May): Modern alchemy, cancer treatment, Earth's atmosphere, art restoration.

Oscillating Chemical Systems and Related Phenomena (27 May): Periodic precipitation, strange attractors, biological systems.

Chemically Solvable Problems (29 May): Radioactive wastes, dental caries, postharvest food loss, vaccines.

Science for the Naked Eye; Or, The Physics of Everyday Experience, X (29 May): Art and computers, pitching baseballs, science fiction, space science, astronomy, the Earth.

Large-Scale Structure in the Universe (29 May).

**Fractal Geometry in Nature, Science, and Art (30 May):** Irregular and fragmented shapes, mathematical constructions, physical and biological systems, graphic design.

Status and Prospects in High-Energy Physics (30 May): Theory, experimental data, new machines.

Searching for Our Analogs in the Universe (31 May): Extraterrestrial life and intelligence, extrasolar planets.

*Workshop:* Implementations of Monoenergetic Positrons in Fundamental and Applied Science (26 May).

#### 3. Earth and Planetary Sciences

The Evolving Role of Man in Space (27 May): Space flights, orbital activities, future exploration, public attitudes.

**Space Industrialization: The Expanding Community (27 May):** Space stations, communication, experimentation, production.

**Planetary Perspectives on the Geosciences (28 May):** Global geology, evolution, Earth's mantle and atmosphere, remote sensing, climate.

**Perceiving Earth Resources from Space (30 May):** Technology—Optical and microwave sensors, information techniques and databases. Applications—Thematic mapping, glaciation, imaging radar, facility planning and siting.

Forecasting the Climate Next Season: How Skillful? How Useful? (31 May): Methods, products, verification procedures.

#### 4. Engineering and Technology

**How Far Miniaturization? (28 May):** Physical problems and limits; materials, lithographic, and film etching technology.

The Chemistry of Transportation Materials (28 May): Plastics, elastomers, lubricants, electrochemical power.

Artificial Intelligence: Science and Applications (29 May).

Computer-Aided Design of Dynamic Systems (30 May): Animation, simulations, design, optimization.

**Emerging Technology for the Disabled (30 May):** Robotics, synthetic voice, machine vision, artificial ear, mobility.

The Science of the Automobile (31 May): Traffic flow, vehicle handling, government regulation.

**Thermal Wave Imaging (31 May):** Photothermal and piezoelectric detection, photoacoustic microscopy, spectroscopy and biophysics applications.

**Research Directions in Computer Engineering for the 1980s (31 May):** Large-scale integration and computer architecture, software developments.

#### 5. Energy Alternatives

A Current Assessment of Key Issues in the Nuclear Power Option (27 May): Changing public perception, advances in safety and reliability, cost/benefit considerations.

Limits to Solar and Biomass Energy Growth (27 May): Economic and resource requirements, health and safety impacts, technology assessments.

**Energy: The Human Dimension (28 May):** Energy consumers, emergencies, and conceptions; local actions.

The New Promise of Coal (29 May): Coal slurries, pollution controls, utility uses, exports.

When the Oil Runs Out, How Long Do We Have? (30 May): Coal and synfuels, fission, fusion, solar power.

#### 6. Ecology and Environment

Future Environmental Effects of Nonnuclear Energy Solid Wastes (27 May): Organic and inorganic wastes, transport, ground-water constituents, coal, oil shale.

State of the Environment, 1983 (27 May): U.S. and world-wide environmental quality, acid rain, toxic substances.

Degradation and Rehabilitation of Fragile Environments: Karst Areas and Desert Margins (28 May): Karst in China, Canada, Yucatán, Ireland, and Mediterranean; physical and social processes, technologies, future research.

The Great Lakes Ecosystem: Resources, Management, and Anthropogenic Impacts (28 May): Satellite imagery, water balance, fisheries, acid precipitation, forest productivity, ecosystem response.

Acid Deposition: A Transboundary Problem for the United States and Canada (29 May): Chemistry, emission control, socioeconomic impacts, fisheries, forests, gaps in understanding, government policies.

Whatever Happened to Desertification? (30 May): UN program, desert productivity, rangeland, water resources, technologies, outlook.

Managing Ground-Water Resources: An Assessment of Future Options (31 May): National policy, state and local governments, land-use options, research and development.

**Environmental Catastrophes: Detection, Dissemination, and Societal Response to Warnings (31 May):** Flood mitigation, hurricane warnings, earthquake predictions, severe storms, preparedness response.

Water Quality Regulation at the Edge of Science (31 May): Effluents, permits, toxic substances, structure-reactivity relationships.

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#### 7. Biological Sciences

**Control of Mammalian Sex Ratio at Birth (27 May):** Impact on food and fiber production, agricultural animals, social consequences, embryo manipulation, gamete sorting.

Living Earth (27 May): Venus, Earth, and Mars; the atmosphere, ecology, deforestation; metal transforming microbes.

The Greening of the Continents: Steps Toward the Establishment of Terrestrial Communities (28 May): Paleogeography, earliest plants, evolution of plants, fungi, anthropods.

The Precambrian-Cambrian Boundary and the Origins of Complex Life (28 May): Historical perspective, stromatolites, shelly fossils, cell evolution, metazoans.

Metals and Aquatic Organisms (28 May): Marine vertebrates and molluscs, trace metals and metal tolerance.

Physiological Adaptations of Fish to Environmental Stress (30 May): Immune response, neuroendocrine mechanisms, thymus, general adaptation syndrome.

Animals and Their Alternatives in Research and Testing (30 May).

**Blood Substitutes in Biology and Medicine (31 May):** Safety issues, hemoglobin solutions, PFC emulsions, cardiovascular studies, clinical studies.

Multidisciplinary Approaches to Plant Opal Phytolith Research (31 May): Silica and ash, coastal plants, grasses, soils; paleogeography, botany, and ecology.

#### 8. Cell Biology and Genetics

Dissecting the Interferon Boom: Lessons for Biomedical Research (27 May): Biotechnology, public perception, private investment, federal support.

Low Molecular Weight Peptides and Control of Gene Expression in Normal and Cancer Cells (28 May): During development, in cellular systems, thymic factors, inhibitors, cancer suppressive activity.

Gene Regulation in Development (28 May): Drosophila fertility, Amy, White, and Notch loci, Bithorax complex.

The Origins of Biological Information (29 May): Definitions, bioenergetics, genetic control, genetic code, amino acid self-sequencing, protein synthesis.

The Phagocytic Cell (30 May).

**Polynucleotide Chemistry and the Regulation of Life (31 May):** DNA synthesis, structure, manipulation.

Monoclonal Antibodies: New Biological Probes (31 May).

### 9. Regulatory Biology

Neuronal Functions of Peptides (27 May): Cultured neurons, transmitters and cotransmitters, Substance P, protein phosphorylation.

**Oral Administration of Peptide and Protein Drugs (29 May):** Theoretical barriers, intranasal and rectal administration of insulin, absorption from small intestine.

Hormones and Bone Biology: Current Concepts of the Pathogenesis and Prevention of Osteoporosis (30 May): Bone formation and resorption, calcium regulation, alterations with age, osteoporosis.

Basic and Clinical Aspects of the Gonadotropin Releasing Hormone and Its Analogs (30 May): Molecular biology, secretion in primates, receptors, analog design, humans. **Progress in Corticosteroid Research (31 May):** Steroid receptor function, clinical presentations, metabolism, anti-inflammatory steroids.

Changing Perspectives on Menopause (31 May): Historical and evolutionary perspectives, estrogen replacement, climacteric centers.

#### 10. Mathematical and Physical Biology

**Biological Batteries: The Role of Ion Gradients in Cellular Energy Storage (27 May):** Bacterial, animal, plant and fungal cells; chloroplasts and mitochondria.

The Revolution in the Analysis of Scientific Data: Concomitant of the Computer Revolution (28 May): Current computer packages, data collection and analysis, large data sets, analysis in industry, artificial intelligence approach.

**Issues Arising from the Expansion of Genetic Screening and Genetic Engineering Technology (29 May):** Optical sequential testing, automation of screening.

**New Biotechnology in the USSR (29 May):** Soviet and outside views, ethical considerations in USSR, US-USSR interactions.

How Good Are Our Health and Environmental Data? (30 May): Quality control, exposure data, cancer epidemiology, environmental decision-making.

Radiation Risk: Assessment and Applications (30 May): Radiation biology, BEIR-III, risk-benefits in radiotherapy and nuclear medicine.

Some Mathematical Questions in Biology: Muscle Physiology (31 May): Muscle contraction—molecular mechanism, models, mechanical experiments, sarcomere dynamics, electric field problems.

#### 11. Medical Sciences

Prenatal Diagnosis and the Fate of the Handicapped Fetus and Newborn: Medical, Ethical, and Legal Perspectives (27 May).

The Spectrum of Birth Settings (27 May).

**Trace Elements in Man: Recent Advances (28 May):** Requirements, role of zinc, immunological functions, and deficiencies.

Demographics and Treatment of Cancer: US-PRC (29 May).

Nutrition in Health and Disease States (30 May): Breast *versus* bottle feeding; nutrition in carcinogenesis, brain metabolism, and host defense mechanisms.

Sodium, Potassium, and Essential Hypertension (30 May): Population studies, membrane transport, kidneys and nervous system, clinical significance.

Efficacy of Psychotherapy (31 May): Psychodynamics, behavior modalities, psychopharmacology.

Alzheimer's Disease: Neurobiology and Public Policy (31 May): Neuropsychological profiles and clinical course, relation to family and society, health services, current research, policy issues.

## 12. Health Care and Public Health

**Occupational Toxicology and Safety in the Research Laboratory** (27 May): Ethical issues, legal liability, academic and industrial laboratories, insurance aspects.

Optimum Utilization of Knowledge in Service of Health (27 May): Human element in medical training, holistic medicine,

public health, role of family, allocation of resources, analysis for optimal results, man and machine.

Changing Patterns of Diseases (27 May): Infectious diseases, mental health, cancer, cardiovascular diseases.

**Bacterial Interactions (28 May):** Streptococci, hormones, large intestine, teeth, plaque.

**Stress in Children and Families (28 May):** Stress and intelligence, self-regulation, Type A behavior.

Analysis and Use of Survival Data in the Biomedical Sciences (30 May): Kidney-transplant survival, Cox model, competing risks, animal studies.

Adolescent Despair, Suicide, and Violent Death (31 May): Epidemiology and etiology, affective disorders; psychosocial, cognitive, and biological aspects.

#### 13. Agriculture and Food

New Frontiers in Agricultural Research and Their Societal Implications (27 May): Recombinant DNA, photosynthesis, nutrition, nitrogen fixation; sociological and political views, environmental impacts, policy.

**Restructuring Policy for Agriculture: Some Alternatives Examined (28 May):** Impact on farm families and rural communities; access to capital, enhancing productivity, environmental impacts; farm income.

**Conservation of Animal Germ Plasm (29 May):** Cryopreservation of spermatoza and embryos, genetic implications.

Sources of Food from Rarely Used Plants (29 May): Undiscovered food sources, new crops, Quinua, Morama bean, limitations.

**Rising Atmospheric Carbon Dioxide and Plant Productivity (31 May):** Carbon metabolism, whole plant growth, plant communities, microbiological effects.

#### 14. Economics and Industry

Monitoring for Risk Management (27 May): Safety, statistical monitoring, estimates of risk, human factors, nuclear power safety.

**Risk of Emerging Energy Technology (27 May):** Risk analysis, coal liquefaction, photovoltaic energy, fluidized bed combustion, risk management.

Social, Political, and Economic Responses to Advances in Manufacturing Technology (27 May): Changing technology, political, social, and labor responses.

**Normative Analysis (28 May):** Going from bad to worse, planning decisions, efficiency and energy use, uncertainty in mineral exploration, investments.

Plant Closures: Corporate Disinvestment and Economic Succession (29 May): Trends, British experience, human response, manpower and employment implications.

**Recent Federal Industrial Innovation Initiatives: An Overview and Synthesis (30 May):** Federal catalyst, tax incentives, patent policy, small business, military R&D.

New Approaches to Technology Strategy: Using Patent Data (30 May): Patents as indicators of development, U.S.-foreign links, and innovativeness; German experience.

**Deregulation of Electric Utilities (31 May):** Bases for deregulation and practical aspects, consumer and capital costs.

#### 15. Sociology and Anthropology

**Research Support and Intellectual Advance in the Social Sciences (27 May):** Changing private and governmental support, impacts and effects.

New Windows on the Development of Language in People Who Cannot Speak (28 May): People with neurosensory deficits, voice synthesizers, microprocessors, protocols of spoken communication, visual systems.

Migratory Pastoralism in Africa and the Middle East: Physical and Social Systems in the Context of Economic Development (28 May): Nomadic pastoralism, arid environments, livestock, sociocultural, economic, and political aspects.

Science, Art, and Archeology, II (29 May): Oriental lacquerware, ancient Chinese bronzes, Baffin Island, Sassanian silver, Roman coins.

The Future of American Mortality: Social, Biological, and Policy Aspects (30 May).

Human Ecology and the Ecosystem in a Predevelopment Pastoral Society (30 May): Future of pastoralism, livestock ecology, resource exploration, nutrition and health.

**Population Redistribution in the United States (30 May):** Trends and implications, industrial change, metropolitan-nonmetropolitan changes.

The Function and Management of Aggression and Cooperation in Biocultural Evolution (31 May).

**Tools for Dealing with Drinking and Driving Problems (31 May):** Age controls, alcohol taxes, countermeasures, public policy.

#### 16. Information and Communication

Science and Music: Recording, New Instruments (27 May): Mechanical instruments, restoration of music, digital editing, violin octet, computer music.

**Toxicology and the Citizen (28 May):** Toxicology education—school, government, industry, scientist, and media roles.

**Television and Science: Is TV the Medium for the Message? (28 May):** Portrayal of science, science programming, role in energy conservation and disease prevention.

Multidimensional World Impact of Advancing Information Technologies (29 May): World challenge, global communication, economic and policy implication, modeling factors and forecasting, automated states and controlled societies.

#### **17. Science Education**

Systems Theory Perspectives on Science and Engineering Education (27 May): Excellence in education, algorithmic systems, quantitative analysis, management of technology, systems design.

The Crises in Science and Mathematics Education: Perspectives from the National, State, and Local Level (28 May): Federalism and its impacts—Mississippi, Michigan, Pennsylvania, Indiana.

Case Histories in Industry-Assisted Secondary School Science Education (28 May): "Try-out" research, teachers' seminars, computers.

Case Histories in Industry-Assisted Undergraduate Science Education (29 May): Industry-academy cooperation, sharing resources, chemistry labs, CAD/CAM.

Case Histories in Industry-Assisted Graduate Science Education (29 May): University-industry interactions—team arrangements, use of TV, robotics.

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Science, Technology, and Society: Core of Technology Literacy (29 May): Experiments in teaching, British and Dutch experiences, new approaches.

A Renaissance in Science Education (30 May): National objectives, precollege education; black, Hispanic, and women's views; corporate and federal roles.

Minorities Success in Mathematics: Can Schools Make a Difference? (31 May): Language factor, black and Chinese students and mathematics; retention and persistence.

**Computers and Mathematics Learning (31 May):** Cognitive theories, spatial reasoning, applications of artificial intelligence, diagnostic modeling, epistemological issues.

Workshop: Reaching Out Beyond the Classroom: Making Science and Math Education Relevant (26 May).

Workshop: Solutions for Entry-Level Scientists (29 May).

#### 18. History, Philosophy, and Ethics

Science and Art: Aesthetic Dimensions of Scientific Thought (27 May): Galileo's universe, Einstein's research passion, heuristics and form, symmetry and symmetry-breaking.

**Expert Claims and Social Decisions: Issues for Professional Ethics and Accountability (27 May):** Biology, psychology, computer modeling, standards for expert claims.

How Much Science Is Secret? (28 May): National security, cryptography, scientific concerns, international issues, freedom of information.

Social Determinants of the Definition of Occupational Diseases (29 May): Black and brown lung diseases, asbestos, lead hazards, labor relations.

Fraud and Dishonesty in Science (29 May): Perspectives of sociologist, philosopher, journalist, historian, and scientist.

Science versus Nonscience (29 May): Pseudoscience, pedagogical problems, scientific thinking.

**Understanding the Process of Transformation of Knowledge (30 May):** Ecology of knowledge, pluriculturalism, computers, technological society, Third-World challenge.

Philosophy of Science: Current Research and Implications for Science Education (31 May): Teaching scientific method, rationalism and relativism, moral education.

Schools of Ecology in Historical Perspective (31 May): Population ecology, experimental limnology, plant adaptation.

#### **19. Science and Technology Policy**

The Role of Scientific Evidence in Policy-Making (27 May): Advisory committees, regulatory issues, congressional decision-making.

Contributions of Scientific and Engineering Societies to Development (27 May): India, Germany, Latin America, U.S. experiences.

**Opportunities for Inter-American Scientific Cooperation on Biological Resources and Biotechnology (28 May):** Overview, AID and NAS, Interciencia network.

Federal R&D FY 1984: Budgets, Policies, Outlooks (28 May).

Utilizing America's Scientific and Technological Resources: A New Challenge for State and Local Government in Partnership with Industry and Education (29 May): Venture capital, education, labor, industry; experiences in Michigan, North Carolina, Minnesota. The Law of the Sea: A Step Toward Institutionalization of Global Interdependence (30 May): Geography, peace, technology transfer.

**Implications of the UN Law of the Sea Treaty (30 May):** Marine science research, U.S. alternatives.

Scientific Evidence in Courtroom Procedure (31 May): Lawyers and scientists, misconceptions and misunderstandings.

The Future of U.S. Research Universities (31 May): Perspectives from universities, state and federal government, and industry.

#### 20. Arms Control and Security

#### Verification Technology: Potentials and Limits (27 May).

**Technology of Peace-Making (27 May):** Underlying assumptions, conflict resolution strategies, UN perspectives.

The Environmental Effects of Thermonuclear War (28 May): Short-term effects, airborne radioactive material, ozone layer, ecological effects, contamination and genetic effects.

Education and Nuclear War (28 May): Courses on arms race and international relations.

The Impact of Command, Control, Communications, and Intelligence (C<sup>3</sup>I) on Strategic Nuclear Options (29 May): Programs, policy, assessment, and technological opportunities.

**Defense Spending: Impact on the Economy and Technology Base (29 May):** Views from DOD and industry, technological spin-off.

Freezes, Treaties, Stops, and STARTS: Current Issues in Arms Control (30 May).

**CBW: Detection, Control, and Disarmament (31 May):** Historical perspective, verification, chemical weapons, military and congressional attitudes.

Workshop: Imaging a Future Without Arms (26 May).

## **Meeting Information**

All Annual Meeting activities will be located in The Westin Hotel at the Renaissance Center: Public lectures and symposia; exhibits and poster sessions (contributed papers); business meetings and social functions; registration, information, and ticket desks; resource centers for disabled and for minority registrants; headquarters office; newsroom; and Science Film Festival.

#### **Hotel Reservations**

The AAAS has reserved guest rooms at guaranteed reduced rates at The Westin Hotel, the Book Cadillac Hotel, and the Hotel Pontchartrain (for locations, see map on page 953 in this issue). The reduced rates are guaranteed only when reservations are made through the AAAS Housing Bureau prior to 2 May 1983. Please read and fill out carefully the hotel reservation form on page 955; room assignments will be delayed if any information is omitted from the form. The AAAS Housing Bureau cannot accept reservations by telephone.

**Do not be a "No-Show"!** If you have made a reservation and find that you cannot honor your commitment, call or write to the hotel and cancel.

#### **Ground Transporation**

**Airport-to-Hotels:** Buses, operated by *Shortway*, run between the Detroit Metro Airport and the three meeting hotels at regular intervals: on weekdays, hourly in early morning and late evening, and every 30 minutes during daytime; less frequently on weekends and holidays. The one-way fare is \$5. *Shortway* ticket and information counters are located in the North and South Terminals of the airport, near the baggage claim areas, and at the Westin, Pontchartrain, and Book Cadillac hotels. The taxi fare from the airport to the hotels is about \$25.

**Between Hotels:** The Downtown Detroit Trolley service stops at all three meeting hotels. Operated by the Detroit Department of Transportation, these vintage trolley cars run at regular intervals; the fare is  $45\phi$  per person.

#### Parking

The Renaissance Center has reserved for AAAS meeting registrants 400 parking spaces at a special convention discount rate of \$4 per day. These spaces are available on "Lot B," on Beaubien Street on the east side of the Center (see map for location). To qualify for the discount rate, registrants must show their badges to the parking lot cashier on exit from the lot. On request, the cashier will issue 24-hour passes for inand-out privileges.

Valet parking is available at the Westin (\$8.50), the Book Cadillac (\$6), and the Pontchartrain (\$6). These rates are for 24-hour parking with in-and-out privileges, for registered guests only; they are subject to change.

For parking at other facilities in downtown Detroit, inquire at the Visitors' Center on Hart Plaza (see map).

#### Meeting Registration

The registration categories and fees are listed on the registration form on page 954. Register in advance; you will save money and avoid standing in line at the on-site registration desk. And you can charge the registration fee to your VISA or MasterCard.

Advance registrants, please note: In mid-April, we will mail to you an expanded preconvention program, your badge and registration receipt, and a voucher for your registration packet. Present the voucher at the Advance Registrants' desk in The Westin Hotel (Ontario Foyer) to receive the program book, condensed program (foldout), and abstracts volume. The registration area is open during the following hours:

Thursday, 26 May	2:00 p.m6:00 p.m.
Friday through Monday,	
27–30 May	8:00 a.m6:00 p.m.
Tuesday, 31 May	8:00 a.m12 noon

#### **Registration Refunds**

The AAAS will refund advance registration fees for all cancellations received by letter or telegram prior to 20 May 1983. No refunds will be made on cancellation notices received after that date. Refunds will be mailed from the AAAS offices in Washington after the Annual Meeting.

#### **Tax Deduction for Educational Expenses**

U.S. Treasury regulation \$1.162-5 permits an income tax deduction for educational expenses (registration fees and cost of travel, meals, and lodging) incurred to (i) maintain or improve skills required in one's employment or other trade or business or (ii) meet express requirements of an employer or a law imposed as a condition to retention of employment, job status, or rate of compensation. This is true even for education which leads to a degree.

#### **Resources for Disabled Registrants**

The AAAS, in cooperation with the Detroit Advisory Committee, is making every effort to make the Annual Meeting fully accessible to disabled individuals. In addition to hotel rooms which can accommodate wheelchairs, and accessible meeting areas, the following services will be provided through a Resource Center located in The Westin Hotel: transportation to and from the airport, train station, and bus terminals; interpreters for the hearing-impaired at all public lectures, and for other sessions on request; special tour and sight-seeing information; audiotaped program highlights for the visually impaired; assistance in movement within and between hotels; and emergency repair for wheelchairs.

Persons needing special accommodations and services are strongly urged to so indicate on the registration and housing forms. Your early response will help us to plan and serve you better. For additional information, contact Virginia Stern, AAAS Project on the Handicapped in Science, 1776 Massachusetts Ave., N.W., Washington, D.C. 20036; phone, 202/467-4497.

#### **Child** Care

The Guest Services Department at The Westin Hotel, and Housekeeping Departments at both the Book Cadillac and the Pontchartrain will arrange for baby-sitters for infants and small children or companion care for older children. Advance notice of at least 24 hours is requested.

# Map of Downtown Detroit

