

UNIVERSITY OF PITTSBURGH
Science2007: Collaborate, Innovate, Transform
Thursday, 11 October & Friday, 12 October

SCHEDULE OF EVENTS

Unless otherwise specified, all Science2007 events will take place in Alumni Hall.

Thursday, 11 October

8:00 a.m. Registration/Continental Breakfast
Alumni Hall Foyer

9:00 a.m. **Spotlight Session 1**—Chromosome Tips: Holding Back Human Disease
Room 532
Moderator: Richard D. Wood, Ph.D.
Speakers:
Patricia L. Opresko, Ph.D.—The Role of Preserving Chromosome Ends in
Protection against Aging and Cancer
Bruce Armitage, Ph.D.—The Rule of Four: A Nontraditional Approach to
Recognizing Guanine-Rich DNA and RNA Targets
William Saunders, Ph.D.—More Is Less: How Too Much of a Good Thing
Leaves Cells Chromosomally Challenged

Spotlight Session 2—Energy Harvesting and Efficiency
Room 531
Moderator: David H. Waldeck, Ph.D.
Speakers:
Alexander Star, Ph.D.—Carbon Nanotube Sensors for Environmental
Monitoring
Laura Schaefer, Ph.D.—Greener Energy Systems for Buildings and Small
Communities
William Harbert, Ph.D.—Reflection Seismic and Rock Physics Investigations
Relevant to Carbon Dioxide Sequestration

Spotlight Session 3—Development and Implementation of a Translational Model
in Obesity
Science Lecture Hall, 3rd Floor
Moderator: Linda M. Siminerio, Ph.D., R.N.
Speakers:
Robert M. O’Doherty, Ph.D.—Applying a Rodent Model to Understanding
Physiological and Metabolic Parameters in Obesity-Related Research
Bret H. Goodpaster, Ph.D.—Understanding the Physiological and Metabolic

Parameters Affecting Body Weight Regulation and Related Chronic Diseases
in Humans

John M. Jakicic, Ph.D.—Translation of Basic and Applied Obesity Research to a
Clinical and Community Intervention

10:30 a.m. Refreshment & Exhibit Break
J.W. Connolly Ballroom, 1st Floor

11:00 a.m. **Plenary Session 1—Dickson Prize in Medicine Lecture**
Auditorium, 7th Floor
Welcome: Mark A. Nordenberg, J.D.
Introduction of Speaker: Arthur S. Levine, M.D.
Keynote Speaker: Carol W. Greider, Ph.D.
Telomerase and the Consequences of Telomere Dysfunction

12:30 p.m. Exhibits & Pizza Lunch
J.W. Connolly Ballroom, 1st Floor

1:00 p.m. Poster Session 1
J.W. Connolly Ballroom, 1st Floor

- Cell Biology
- Genes and Genomes
- Energy Efficiency and Fuels
- Metabolism
- Proteins and Proteomics
- The Senses

Science at Work Session 1—Concurrent EDA: Leveraging Economic
Development Resources to Transform University Research into Marketable
Products
Room 531
Panelists: Raymond R. Hoare, Ph.D., Chuck Brandt, Ph.D., Patricia M. Rogan,
Randy Eager

Science at Work Session 2—Concept to Commercialization™: See How the
Pittsburgh Life Sciences Greenhouse Executive-in-Residence Program Drives
Innovation
Room 532
Moderator: John W. Manzetti
Panelists: James Jordan, Fred L. Maroni, Craig Markovitz

2:00 p.m. **Spotlight Session 4**—When Good Proteins Go Bad
Room 532
Moderator: Jeffrey Brodsky, Ph.D.
Speakers:

David H. Perlmutter, M.D.—Alpha-1-Antitrypsin Deficiency: An Aggregation-Prone Protein Causes Liver Diseases in Children
Gary A. Silverman, M.D., Ph.D.—When Good Worms Turn Bad: New Models to Study Protein Aggregation and Elimination
Raymond Frizzell, Ph.D.—Wrestling with CFTR Folding: SUMO Enters the Ring

Spotlight Session 5—Fuels of the Future

Science Lecture Hall, 3rd Floor

Moderator: Minking K. Chyu, Ph.D.

Speakers:

Carl O. Bauer, M.S.—Greenhouse Gas Management and Its Role in Future Fuels

Robert L. Hirsch, Ph.D.—The Peaking of World Oil Production and Its Mitigation

Stephen R. Tritch—Renaissance Realities: Nuclear Power in an Ever-Changing World

Spotlight Session 6—The Senses

Room 531

Moderator: Karl Kandler, Ph.D.

Speakers:

Xiangyun Wei, Ph.D.—Patterning Matters: What Do Zebrafish Tell Us about Retinal Development?

Daniel J. Simons, Ph.D.—Touching Whiskers: Feeling Our Way through the Machinery of the Brain

Judith Klein-Seetharaman, Ph.D.—Dynamics and Interactions of the Visual Photoreceptor Rhodopsin

3:30 p.m. Ice Cream & Exhibit Break
J.W. Connolly Ballroom, 1st Floor

4:00 p.m. **Plenary Session 2—Provost Lecture**
Auditorium, 7th Floor
Welcome and Introduction of Speaker: James V. Maher, Ph.D.
Keynote Speaker: Edward Mazria, AIA
Nation Under Siege

5:00 p.m. **Opening Night Reception and Technology Showcase**
William Pitt Union, Lower Lounge

Friday, 12 October

8:00 a.m. Registration/Continental Breakfast
Alumni Hall Foyer

8:30 a.m. **Career Symposium for Postdocs and Graduate Students**

**Early Career Transitions: Exploring Your Passions and
Recognizing Your Potential**

Auditorium and Cathedral Views Gallery, 7th Floor

- 9:00 a.m. **Spotlight Session 7**—Viral Evolution
Science Lecture Hall, 3rd Floor
Moderator: Elodie Ghedin, Ph.D.
Speakers:
James M. Pipas, Ph.D.—Viruses: Tools for the Discovery and Study of Host
Regulatory Pathways
David J. Earl, Ph.D.—Computer Simulations of Viral Evolutionary Processes
Ole Gjoerup, Ph.D.—SV40 Large T Antigen and Bub1: Lessons in Ploidy and
Senescence
- Spotlight Session 8**—Novel Computational Tools
Room 532
Moderator: Sanford Leuba, Ph.D.
Speakers:
Michael Grabe, Ph.D.—How Does Voltage Open and Close Potassium
Channels? Insight from Studies with Yeast and Computers
Chakra Chennubhotla, Ph.D.—Computational Methods Applied to the
Understanding of Protein Allostery
Luis von Ahn, Ph.D.—Human Computation
- Spotlight Session 9**—Animal Models and Gene Targeting
Room 531
Moderator: Laura J. Niedernhofer, M.D., Ph.D.
Speakers:
Ferhaan Ahmad, M.D., Ph.D.—Genetic Modeling of Human Heart Failure in
Mice
Steven D. Shapiro, M.D.—Biological Roles of Proteinases: Lessons from
Gene Targeting
G. David Roodman, M.D., Ph.D.—Paget's Disease—Virus or Gene?
- 10:30 a.m. Refreshment & Exhibit Break
J.W. Connolly Ballroom, 1st Floor
- 11:00 a.m. **Plenary Session 3**—**Klaus Hofmann Lecture**
Auditorium, 7th Floor
Welcome and Introduction of Speaker: Arthur S. Levine, M.D.
Keynote Speaker: Mario R. Capecchi, Ph.D.
*Modeling Human Disease in the Mouse: From Cancer to Neuropsychiatric
Disorders*
- 12:30 p.m. Hoagie Lunch & Last Call for Exhibits
J.W. Connolly Ballroom, 1st Floor

- 1:00 p.m. **Poster Session 2**
J.W. Connolly Ballroom, 1st Floor
- Bacteria and Viruses
 - Computation
 - Modeling Disease
 - Immunology
 - Regenerative Medicine

Science at Work Session 3—It’s Getting Easier to Be Green
Room 532

From new cars, to new biomedical devices, to new construction, the United States seems finally to understand and appreciate the importance of energy efficiency to the sustainability of our environment and our economy. Hear about some of the ways energy-saving concepts are being applied to many aspects of our daily lives.

Moderator: Dennis M. “Mickey” Flynn

Panelists: James M. Sweeney, John C. Schrott, AIA, ACHA

Science at Work Session 4—Anatomy of a Licensing Transaction
Room 531

How does a promising idea get from the laboratory to the market? This panel will review the legal and business mechanics of licensing technology out of universities.

Moderator: Theresa J. Colecchia, J.D.

Panelists: David Smith, J.D., Peter M. Watt-Morse, J.D.

- 2:00 p.m. **Spotlight Session 10**—T-Cell Differentiation and Immunology
Room 532

Moderator: Fadi G. Lakkis, M.D.

Speakers:

Olivera J. Finn, Ph.D.—The Immune System and Cancer: Thanks for the Memories

Binfeng Lu, Ph.D.—Th1 Type Immune Responses and Tumor Surveillance

Angus W. Thomson, Ph.D., D.Sc.—Dendritic Cells and Regulation of T-Cell Responses

Spotlight Session 11—Genome-Wide Association Studies
Room 531

Moderator: Robert Ferrell, Ph.D.

Speakers:

Mary Marazita, Ph.D.—Genome-Wide Association Studies Abroad: The Importance of Collaboration and Study Design

M. Michael Barmada, Ph.D.—Genome-Wide Association Studies: Analytic Issues and Validation

Richard H. Duerr, M.D.—Genome-Wide Association Studies Herald a New Era of Rapid Discoveries in Inflammatory Bowel Disease Research

Spotlight Session 12—Regenerative Medicine

Science Lecture Hall, 3rd Floor

Moderator: William R. Wagner, Ph.D.

Speakers:

Gerald P. Schatten, Ph.D.—Pedigreed Primate Embryonic Stem Cells

Express Homogeneous Familial Gene Profiles

Stephen F. Badylak, M.D., D.V.M., Ph.D.—Tissue Regeneration: Today

Versus Tomorrow

Constance R. Chu, M.D.—Regenerating Articular Cartilage—A Riddle for the Ages

3:30 p.m. Refreshment Break
Alumni Hall Foyer

4:00 p.m. **Plenary Session 4—Mellon Lecture**
Auditorium, 7th Floor
Welcome and Introduction of Speaker: Olivera J. Finn, Ph.D.
Keynote Speaker: Laurie H. Glimcher, M.D.
Lineage Commitment in the Immune System

5:00 p.m. **Closing Happy Hour**
Fifth Floor Foyer