

## Experimental Biology 2007 Meets in Washington, DC, April 28 - May 2

### *Today's Research: Tomorrow's Health*

More than 12,000 biological and biomedical scientists will gather for the Experimental Biology 2007 meeting at the Washington Convention Center, Washington, DC, April 28 through May 2.

This annual meeting brings together scientists from dozens of different disciplines, from laboratory to translational to clinical research, from throughout the United States and the world. Through thousands of lectures, symposia, research presentations, and exhibits, Experimental Biology provides scientists and clinicians an unparalleled opportunity to step outside the boundaries of their own fields and share information with colleagues looking at similar biomedical problems through the lens of different disciplines. The meeting also offers a wide spectrum of professional development for scientists, as listed below.

The theme of this year's meeting, "Today's Research: Tomorrow's Health," speaks to Experimental Biology's mission to share the newest scientific concepts and research findings shaping future and current clinical advances.

The six sponsoring societies for Experimental Biology 2007 are: American Association of Anatomists (AAA); American Society for Biochemistry and Molecular Biology (ASBMB); American Society for Nutrition, Inc. (ASN); American Society for Investigative Pathology (ASIP); American Society for Pharmacology and Experimental Therapeutics (ASPET); and The American Physiological Society (APS). Experimental Biology includes the annual meetings of all sponsoring societies.

Eighteen U.S. and international guest societies further broaden the scope of the meeting, adding expertise in biomedical engineering, behavioral pharmacology, veterinary pathology, biological chemistry, informatics and other areas of investigation.

The diversity of topics can be seen in this small sampling from the programs of sponsoring societies and their guests:

The *Association of American Anatomists* offers lectures, research presentations and symposia on a wide range of cell behaviors affecting health. Keynote speaker Darwin Prockop, Director of Gene Therapy Center at Tulane University, speaks on successes in his and other laboratories with the use of adult stem cells in tissue regeneration and repair. Based on an increasing recognition of the relationship of processes occurring during normal development and disorders that manifest as disease in the adult, several sessions focus on gene function and what scientists can learn about aggressive tumor cells from how stem cells develop and are influenced by the body's microenvironment. One session focuses on the progress of bioengineering in creating replacement tissues for the heart, eye, skin and other organs. Others describe advances in three- and four-dimensional imaging of the cardiovascular system in living humans and how disruptions in circadian timing affect health.

The *American Society for Biochemistry and Molecular Biology*, true to its dedication to the “chemistry of life,” offers symposia and thematic meetings on topics such as the chemical biology of cell death, chemistry and cell biology of natural products, enzyme design and reaction, antibiotics for the 21<sup>st</sup> century, biochemistry and signaling of lipids, and genome dynamics, from the genome to the epigenome (the chemical modifications to DNA believed likely to produce some of the earliest diagnostic, prognostic and therapeutic clinical tools). Ten distinguished scientists will give award lectures on topics ranging from the causes and consequences of aneuploidy (too many or too few chromosomes) to the relationship between PPAR (a transcription factor that stimulates the body to burn fat) and obesity. This year’s minority affairs session includes talks on hepatitis C, tuberculosis and sickle cell anemia in minority populations.

The *American Society for Nutrition, Inc.* presents the latest findings on topics such as breast feeding and atopic disease (hereditary predisposition toward hypersensitivity reactions such as hay fever, asthma or atopic dermatitis); the hidden dangers of heavy metal exposure to undernourished mothers and children; nutrient gene interactions; nutrient modulation of immune function and control of immunity in health and chronic disease; nutritional strategies related to diabetes, cancer, cognitive decline, chronic disease, osteoporosis and other diseases; obesity-associated inflammation, immune dysfunction, and effects of nutrient and lifestyle modification; and numerous sessions focusing on specific vitamins and minerals from A and carotenoids to zinc nutrition and metabolism. A workshop on the science of botanical supplements for human health features a view from the National Institutes of Botanicals Centers. The ASN’s ever-lively “controversy” session discusses recent epidemiological and experimental knowledge about the health effects of coffee drinking.

The *American Society for Investigative Pathology* has integrated its annual meeting with that of the American Association of Neuropathologists, the Histochemical Society, and the North American Vascular Biology, to build a program of broad scientific and clinical interest, including other sessions developed with various guest societies. Full-day conferences center on mechanisms of neurodegenerative disease and emerging infectious diseases and include the keynote lecture on defining critical neuropathology in neurodegenerative disorders by Dr. Floyd E. Bloom, The Scripps Research Institute. Other symposia, lectures, and research presentations focus on the neuropathology and genetics of Parkinsonism; emerging infectious diseases; new insights concerning mitochondrial DNA and human disease pathology; the genetics and pathogenesis of autoimmunity; viruses and human cancer; developmental pathways in cancer progression; new developments in vascular biology; pharmacogenomics and targeted therapies; stem cells for therapeutics; and novel therapies based on molecules of the innate immune system.

The *American Society for Pharmacology and Experimental Therapeutics* offers symposia on cannabinoids (a chemical compound in cannabis or marijuana), endocannabinoids (a marijuana-like substance) and pain associated with inflammation, stress, psychiatric disorders, neurodegenerative disorders, and other disorders; the future of pharmacogenomics and its clinical applications; nanotechnology in disease therapeutics; osteoporosis and bone research (a symposium subtitled “no time to be bad

to the bone”); toxicology of nanomaterials (including effects on the skin and lungs); the ways in which nicotine modulates adolescent brain plasticity, interacts with other drugs during sensitive developmental periods, and, when used along with alcohol by a woman during pregnancy, alters drug responsiveness in offspring; an examination of why children, adolescents and adults respond differently to antidepressants; studies of how perinatal stress, such as maternal separation, affects drug response and propensity to abuse drugs as an adult; and cardiovascular gene therapy.

***The American Physiological Society*** program includes 16 societal or distinguished lectures and a Physiology Infocus session that focuses on novel technologies in physiology and medicine, such as advances in forensic medicine, new approaches in imaging, and the use of experimental evolution (selecting for particular physiological attributes in large laboratory populations) as a tool of physiological analysis. Other workshops include human subject research ethics and the challenge of presenting basic research in an anti-science, anti-evolution and anti-education era. Among topics for symposia or individual research presentations are: cancer and hypoxia (starving tumors of oxygen) ; pharmacogenomics of estrogen and cardiovascular disease; roles of intestinal epithelia and bacteria in inflammatory disease; and the potential benefits of suspended animation-like states in the mitigation of injuries that induce brain ischemia, including recent findings about novel chemical mediators that may be used to induce these protective conditions clinically.

***And more.*** Participating societies also offer numerous sessions, open to all meeting participants, related to career development, challenges and opportunities for minority and women scientists, networking, how to become a better teacher or communicator and how to improve the chance of publishing (one such presentation is named “dancing with journals”) and applying for and winning research funding.

***Experimental Biology*** itself has arranged a number of sessions on topics of interest, including “NIH at the Crossroads: How Diminished Funds Will Impact Biomedical Research and What Scientists Can Do About It,” a presentation by NIH Director Elias Zerhouni and The Honorable John Porter, former Chair of the U.S. House of Representatives Labor/HHS Appropriations Subcommittee. This year’s EB and FASEB (Federation of the American Societies of Experimental Biology) MARC (Minority Access to Research Careers) Genomics Symposium and Poster session, moderated by Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, NIH, focuses on the genetic and therapeutic implications of health disparities in HIV and AIDS.

Exhibits of the latest research-related technologies, products and services will be open Sunday and Monday, April 29 and 30, from 9 AM to 4 PM and Tuesday, May 1, from 9 AM to 3:30 PM.

Once again, the FASEB Career Resources will hold a virtual career fair and a “Career Connection” reception for employers and those seeking positions.

Regularly-updated information on Experimental Biology 2007 is available at

<http://www.eb2007.org>.

### ***Information for journalists***

Experimental Biology 2007 is open to media representing print, electronic, online, general interest, trade, and medical publishing companies. To register as press, a journalist must present media identification or a business card issued by a recognized news organization.

***To register as press***, email Sarah Goodwin at [ebpress@bellsouth.net](mailto:ebpress@bellsouth.net). An Experimental Biology pressroom will be available, with daily media briefings by scientists presenting at the meeting. Press kits will be issued along with programs and abstract books upon registration.

This year, a special press reception will be hosted by editors of The FASEB Journal, the Journal of the Federation of American Societies for Experimental Biology. The reception is scheduled for Tuesday, May 1, 1:30-3 p.m. in the EB Press Lounge, and hors d'oeuvres and other refreshments will be served. This is an excellent opportunity to meet FASEB editors as well as fellow journalists attending the meeting.

Journalists also will receive information about additional press opportunities related to The American Physiological Society program. Contact Donna Krupa at [DKrupa@The-APS.org](mailto:DKrupa@The-APS.org).

All meeting press releases contain embargoed information, with embargo at the time of the pressroom presentation or scientific session, whichever comes first.