



## ***TSC ALERT***

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### **January 2004**

Welcome to the January 2004 edition of *TSC Alert* – an online research newsletter for individuals interested in Tuberous Sclerosis Complex (TSC) research and clinical care. This online newsletter contains information of interest to the TSC research and health care community. Please forward this newsletter to colleagues who are interested in TSC. To be added/deleted to/from the mailing list for *TSC Alert* and/or to submit information for the February 2004 *TSC Alert* contact: [Vicky.Whittemore@tsalliance.org](mailto:Vicky.Whittemore@tsalliance.org)

### **Table of Contents**

[Clicking on one of the headings takes you directly to that section of *TSC Alert*]

<b>GRANT ANNOUNCEMENTS:</b> .....	<b>1</b>
<b>NIH ANNOUNCEMENTS:</b> .....	<b>3</b>
<b>TSC TISSUE AVAILABILITY:</b> .....	<b>7</b>
<b>RESOURCES:</b> .....	<b>7</b>
<b>NEWS:</b> .....	<b>8</b>
<b>NEW TSC PUBLICATIONS:</b> .....	<b>9</b>
<b>CONFERENCES:</b> .....	<b>14</b>
<b>ARCHIVED ISSUES OF TSC ALERT:</b> .....	<b>16</b>

### **GRANT ANNOUNCEMENTS:**

#### **Department of Defense Tuberous Sclerosis Complex Research Program Funding Opportunities for Fiscal Year 2004**

The Fiscal Year 2004 (FY04) Defense Appropriations Act provides \$3 million to the Department of Defense Tuberous Sclerosis Complex Research Program (TSCRCP) to support innovative research directed toward improved prevention, diagnosis, and treatment for tuberous sclerosis. This program is administered by the U.S. Army Medical Research and Materiel Command through the Office of the Congressionally Directed Medical Research Programs (CDMRP).

The FY04 TSCRP Program Announcements will be released in mid to late January 2004, with receipt of electronic submission proposals due May 4, 2004 at 5:00 p.m. Eastern time. FY04 TSCRP Program Announcements for proposals in the following mechanisms are expected to be released mid to late January 2004:

**Concept Awards - New**  
**Natural History Development Awards - New**  
**Idea Development Awards**

The new **Concept Awards** are intended to fund exploration of an initial concept or theory that could give rise to a testable hypothesis within tuberous sclerosis research. The Congressionally Directed Medical Research Programs (CDMRP) plans to solicit electronic submissions for short (three-page) Concept Award proposals. Preliminary data are not required. These awards can be requested for \$100,000 inclusive of direct and indirect costs over a one year performance period. Projects involving human subjects or human anatomical substances will not be supported unless they are exempt (full details will be available in the Program Announcement). The receipt deadline for proposal submissions is planned for May 4, 2004, 5:00 p.m. Eastern time.

The new **Natural History Development Awards** are intended to fund the development of natural history studies of tumor growth and/or other manifestations of tuberous sclerosis. These awards will fund the development of a plan for communication, data transfer, handling of specimens, and imaging products, and a plan for statistical analysis between collaborating institutions and laboratories. The submission of a Natural History Award application will be required at the conclusion of the award period. Funding for the Natural History Development Awards will provide up to \$100,000 inclusive of direct and indirect costs for up to a one year performance period. The receipt deadline for proposal submissions is planned for May 4, 2004, 5:00 p.m. Eastern time.

**Idea Development Awards** are designed to encourage innovative research directed toward improved prevention, diagnosis, and/or treatment of tuberous sclerosis. They are intended to stimulate and reward innovative research ideas that may be viewed as high risk but have the potential for high gain in scientific and clinical knowledge. Idea Development Awards are for a maximum of \$425,000 inclusive of direct and indirect costs for a 2 to 3 year performance period. The receipt deadline for proposal submissions is planned for May 4, 2004, 5:00 p.m. Eastern time.

Detailed descriptions of each of these mechanisms, evaluation criteria, and submission requirements, and deadlines will be available in the relevant FY04 TSCRP Program Announcement when released in mid to late January. Each Program Announcement will be available electronically as a download from the CDMRP web site <http://cdmrp.army.mil> upon its release.

During the first two years of the TSCRP, the review process has been integrated into the existing Scientific and Program (Integration) Review Panels for the Neurofibromatosis Research Program (NFRP) because of the overlap in scientific interests and to reduce administrative costs. Starting in FY04, there will be a separate Integration Panel for the TSCRP, chaired by Vicky Holets Whittemore, Ph.D., Senior Science Advisor for the Tuberous Sclerosis Alliance.

Requests for e-mail notification when Program Announcements are released may be sent to [prequest@constellagroup.com](mailto:prequest@constellagroup.com)

For more information about the TSCRP, TSCRP awardees, previous TSCRP Program Announcements, and other CDMRP-sponsored programs and events, please visit the CDMRP web site: <http://cdmrp.army.mil>

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## **NIH ANNOUNCEMENTS:**

### **THE NIH DIRECTOR'S PIONEER AWARD PROGRAM**

In a move to stimulate high-risk, high-impact medical research, the National Institutes of Health (NIH) is inviting nominations for the NIH Director's Pioneer Award Program, part of a series of far-reaching initiatives known collectively as the NIH Roadmap for Medical Research.

To inaugurate this new program, the NIH will provide up to \$500,000 per year for five years to a highly select group of individuals who have the potential to make extraordinary contributions to medical research.

"The face of biomedical research is changing," says Elias A. Zerhouni, M.D., Director of the NIH. "To keep pace, we must cross the traditional disciplinary boundaries of science and medicine to bring forward new conceptual frameworks and methodologies that will speed scientific discovery and improve health." The Director's Pioneer Award will encourage investigators in the biomedical, behavioral and social sciences, physical and chemical sciences, computer sciences, mathematics and engineering to take on creative, unexplored avenues of research related to the improvement of human health. While the research that will be funded may carry uncertain outcomes, the award will provide investigators with the resources and flexibility needed to pursue truly groundbreaking discoveries.

"Historically, leaps in knowledge have frequently resulted from exceptional minds willing and able to explore ideas that were considered risky at their inception," says Dr. Zerhouni. "We're seeking truly visionary thinkers who are able to make those leaps and change the current paradigms of medical research."

Traditionally, the NIH has awarded grants to support research projects. This new award will support individual scientists or thinkers with pioneering ideas and approaches to contemporary challenges in biomedical research. Applicants will have the intellectual freedom to pursue their ideas and follow them in expected or even unexpected directions. The program is not intended to support ongoing research projects or simply expand the funding of investigators who are already well supported.

Given the unique nature of this award, applicants will undergo a rigorous selection process to establish the potential high-impact benefits of their ideas to medical research and their likely abilities to pursue their concepts. Nominations will be accepted from March 1, 2004 through midnight April 1, 2004, Eastern Time. For further information or to submit a nomination, visit the NIH Director's Pioneer Award Web site at <http://www.nihroadmap.nih.gov/highrisk/initiatives/pioneer>.

The NIH, which is comprised of 27 institutes and centers, is an agency of the Department of Health and Human Services. The Web site for the NIH Roadmap is located at: <http://www.nihroadmap.nih.gov>. More information about the NIH can be found at its Web site: <http://www.nih.gov>.

**RESEARCH ON PSYCHOPATHOLOGY IN INTELLECTUAL DISABILITIES (MENTAL RETARDATION) (PA-04-044)**

National Institute of Mental Health

<http://grants.nih.gov/grants/guide/pa-files/PA-04-044.html>

**IN VIVO CANCER IMAGING EXPLORATORY/DEVELOPMENTAL GRANTS (PA-04-045)**

National Cancer Institute

<http://grants.nih.gov/grants/guide/pa-files/PA-04-045.html>

**CLINICAL CANCER THERAPY AND PREVENTION RESEARCH (PA-04-046)**

National Cancer Institute

<http://grants.nih.gov/grants/guide/pa-files/PA-04-046.html>

**MURINE ATLAS OF GENITOURINARY DEVELOPMENT (PAR-04-042)**

National Institute of Diabetes and Digestive and Kidney Diseases

National Institute of Child Health and Human Development

<http://grants.nih.gov/grants/guide/pa-files/PAR-04-042.html>

**INNOVATIVE TECHNOLOGIES FOR MOLECULAR ANALYSIS OF CANCER (RFA-CA-05-002)**

National Cancer Institute

<http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-05-002.html>

**APPLICATION OF EMERGING TECHNOLOGIES FOR CANCER RESEARCH (RFA-CA-05-003)**

National Cancer Institute

<http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-05-003.html>

**INNOVATIONS IN CANCER SAMPLE PREPARATION (RFA-CA-05-004)**

National Cancer Institute

<http://grants.nih.gov/grants/guide/rfa-files/RFA-CA-05-004.html>

**THE NCI TRANSITION CAREER DEVELOPMENT AWARD (PAR-04-040)**

National Cancer Institute

<http://grants.nih.gov/grants/guide/pa-files/PAR-04-040.html>

**PRACTICE-BASED RESEARCH NETWORKS (PBRNs) AND THE TRANSLATION OF RESEARCH INTO PRACTICE (PAR-04-041)**

Agency for Healthcare Research and Quality

National Cancer Institute

<http://grants.nih.gov/grants/guide/pa-files/PAR-04-041.html>

**ELSI REGULAR RESEARCH PROGRAM (R01) (PA-04-050)**

National Human Genome Research Institute  
National Institute of Aging  
National Institute of Child Health and Human Development  
National Institute on Drug Abuse  
National Institute on Deafness and Other Communication Disorders  
National Institute of Environmental Health Sciences  
National Institute of General Medical Sciences  
National Mental Health Institute  
National Institute of Neurological Disorders and Stroke  
APPLICATION RECEIPT DATES: Multiple Receipt Dates, see announcement  
<http://grants.nih.gov/grants/guide/pa-files/PA-04-050.html>

**ELSI SMALL GRANT RESEARCH PROGRAM (R03) (PA-04-051)**

National Human Genome Research Institute  
National Institute of Aging  
National Institute of Child Health and Human Development  
National Institute on Deafness and Other Communication Disorders  
National Institute of Diabetes and Digestive and Kidney Diseases  
National Institute on Drug Abuse  
National Institute of Environmental Health Sciences  
National Mental Health Institute  
National Institute of Nursing Research  
APPLICATION RECEIPT DATES: Multiple Receipt Dates, see announcement  
<http://grants.nih.gov/grants/guide/pa-files/PA-04-051.html>

**NATIONAL INSTITUTE OF ARTHRITIS, MUSCULOSKELETAL AND SKIN DISEASE  
(NIAMS) FY 2004 Funding Plan**

<http://www.niams.nih.gov/an/budget/fy2004/04FundingPlan.htm>

**SCREENING AND INTERVENTION FOR YOUTH IN PRIMARY CARE SETTINGS (RFA -DA-04-006)**

Substance Abuse and Mental Health Services Administration  
Agency for Healthcare Research and Quality  
Health Resources and Services Administration  
National Institute on Drug Abuse  
<http://grants1.nih.gov/grants/guide/rfa-files/RFA-DA-04-006.html>

**AHRQ GRANTS FOR HEALTH SERVICES RESEARCH DISSERTATION (PAR-04-039)**

Agency for Healthcare Research and Quality  
<http://grants1.nih.gov/grants/guide/pa-files/PAR-04-039.html>

**THE NCI TRANSITION CAREER DEVELOPMENT AWARD (PAR-04-040)**

National Cancer Institute  
<http://grants1.nih.gov/grants/guide/pa-files/PAR-04-040.html>

## **PRACTICE-BASED RESEARCH NETWORKS (PBRNs) AND THE TRANSLATION OF RESEARCH INTO PRACTICE (PAR-04-041)**

Agency for Healthcare Research and Quality  
National Cancer Institute

<http://grants1.nih.gov/grants/guide/pa-files/PAR-04-041.html>

## **HHS ISSUES NATIONAL REPORTS ON QUALITY AND DISPARITIES IN THE USE OF HEALTH CARE SERVICES**

HHS Secretary Tommy G. Thompson released two reports that represent the first national comprehensive effort to measure the quality of health care in America and differences in access to health care services for priority populations.

The reports, National Healthcare Quality Report and the National Healthcare Disparities Report, provide baseline views of the quality of health care and differences in use of the services. Future reports will help the nation make continuous improvements by tracking quality through a consistent set of measures that will be updated as new measures and data become available.

The reports are available on a new Web site, <http://www.qualitytools.ahrq.gov>

The site serves as a Web-based clearinghouse to make it easier for health care providers, health plans, policymakers, purchasers, patients and consumers to take effective steps to improve quality. Print copies of the reports also can be obtained by calling 1-800-358-9295 or by e-mailing [ahrqpubs@ahrq.gov](mailto:ahrqpubs@ahrq.gov)

## **NIEHS AND UNC TO COLLABORATE ON REGISTRY OF 20,000 SUBJECTS TO RELATE GENE VARIANTS AND ENVIRONMENTAL DISEASE**

Scientists at the National Institute of Environmental Health Sciences in Research Triangle Park, N.C., one of the National Institutes of Health, and the University of North Carolina at Chapel Hill are collaborating on a registry that will eventually include 20,000 patients at various UNC medical facilities and will allow researchers to better study the relationship between environmental exposures, genetic susceptibility, and human disease.

The Environmental Polymorphism Registry was initiated by NIEHS Director of Clinical Research Perry Blackshear, M.D., D. Phil., and NIEHS Health Scientist Administrator Patricia Chulada, Ph.D., M.H.S. Their collaborators at UNC are Director of the General Clinical Research Center Paul Watkins, M.D., and Director of Training and Career Development Susan Pusek.

A pilot study launching the registry requested consent from 600 patients at UNC outpatient clinics. About 80 percent of those asked agreed to allow a portion of blood drawn for other medical purposes to be used for the isolation of DNA that was placed in the registry depository. The samples are coded to protect the identity of donors and then made available for researchers at the National Institutes of Health, including NIEHS, and UNC, and their collaborators, to screen for the presence of genetic variants, called polymorphisms (literally "many forms"), in a category of genes known as "environmentally sensitive" genes.

These genes control how our bodies handle substances from the environment, encoding proteins that regulate a wide variety of cell functions such as toxicant and drug metabolism, cell proliferation and differentiation, cell cycle, cell death, DNA repair, signal transduction, hormone receptors, immune and inflammatory responses, and others.

In recruiting volunteers for the registry, health status is not a requirement, whether a patient has a disease or condition or not. The only requirement is that the patient be 18 years of age or older to give consent.

Dr. Blackshear said that the registry will be unusual in that patient identifiers will be maintained in coded form, giving scientists the ability to re-contact participants at a later date for follow-up studies. "There were no resources such as this available to NIH or UNC researchers prior to this, although there are many available anonymous DNA repositories," Dr. Blackshear said. Data from the follow-up studies will allow scientists to identify groups of individuals with genetic polymorphisms in "environmentally sensitive" genes and possibly to correlate their genetic variants with patients' clinical histories and current health status.

"The data collected from these studies may be used to define environmental risk factors and develop preventative strategies to reduce the incidence of disease," Dr. Blackshear said.

"This is a pioneering initiative," said Dr. Paul B. Watkins, professor of medicine and director of the General Clinical Research Center (GCRC) at UNC. "Clearly, this is the next step that's needed to increase our understanding of how genes interact with the environment, including the body's response to medicines." Recruitment for the registry will begin soon at the Ambulatory Care Center at Mason Farm Road and S. Columbia Street in Chapel Hill, N.C. Other sites at UNC affiliated medical facilities may be added in 2004. Dr. Blackshear may be contacted on the registry, at (919) 541-4899. <http://www.niehs.nih.gov/>

#### **DR. BELINDA SETO NAMED DEPUTY DIRECTOR OF NIBIB**

Belinda Seto has been named deputy director of the National Institute of Biomedical Imaging and Bioengineering (NIBIB). In this position, she will work directly with Roderic I. Pettigrew, director of NIBIB, to oversee all aspects of the Institute's operations. Seto most recently served as acting deputy director for extramural research at the NIH. For more information, see:

<http://www.nih.gov/news/pr/dec2003/nibib-16.htm>

## **TSC TISSUE AVAILABILITY:**

The following tissues from individuals with TSC have been received recently at the Brain and Tissue Bank at the University of Maryland:

- Liver angiomyolipoma (surgical specimen)
- Tuber (surgical)
- Renal tumor (surgical)
- Ungual fibromas (surgical)
- Septal cartilage (surgical)
- Brain, liver, pancreas, kidney, lung, and blood (autopsy specimen)

If you are interested in obtaining tissue for your research, please contact the Brain and Tissue Bank at 1-800-847-1539 or visit their Web site at: <http://som1.umaryland.edu/braintissuebank>

## **RESOURCES:**

#### **TSC RESEARCH RESOURCES**

Check out the available Primer on Developing Drugs for TSC and listings of available Animal Models, Antibodies, Cell Lines, Compound Libraries, DNA Constructs and Tissue Samples at:

<http://www.childhooddiseases.org/rsc.html>

## **LEARNING DISABILITIES WEB SITE**

An excellent web site for teachers, parents and professionals who care for and work with individuals with learning disabilities can be found at LDOnline: <http://www.ldonline.org>

## **THE GENETICS AND PUBLIC POLICY CENTER: PROFESSIONAL GUIDELINES AT A GLANCE**

The Genetics and Public Policy Center is an independent and objective source of information and analysis on genetic technologies and policies. View their web site at: <http://www.dnapolicy.org>

What are professional organizations doing to guide the research and clinical use of reproductive genetic technologies? The Center has compiled [professional guidelines](#) and position statements regarding reproductive genetic testing, assisted reproductive technologies, gene transfer, and reproductive cloning in one place for easy access.

## **NEWS:**

### **NEW INSIGHT INTO CONTROL OF PARENTAL GENE EXPRESSION IN EGGS**

Researchers have identified a crucial step in a genetic process required for the development of viable eggs. The process, known as imprinting, distinguishes the paternally-inherited and the maternally-inherited copies of a number of developmentally important genes.

Exploring the mechanisms underlying gene imprinting may provide insight into so-called epigenetic control of gene expression, in which the cellular machinery governs the expression of genes in the cell. The function of that machinery, which makes modifications to the genome, remains among the major mysteries in biology. Research published in the January 9, 2004, issue of Science.

HHMI investigator(s):

Marisa S. Bartolomei, Ph.D., University of Pennsylvania School of Medicine

For the full story, go to <http://www.hhmi.org/news/bartolomei.html>

### **HHS APPROVES MICHIGAN REQUEST TO EXPAND COVERAGE TO UNINSURED ADULTS**

HHS Secretary Tommy G. Thompson today announced the approval of Michigan's request under the new, more flexible Health Insurance Flexibility and Accountability (HIFA) Initiative to expand the use of SCHIP funds to offer health insurance to adults who are currently uninsured.

The state will expand health insurance coverage to childless adults with family incomes at or below 35 percent of the federal poverty level. Michigan is the ninth state to use the HIFA waiver to expand access to health care coverage. New Mexico, Oregon, Illinois, Colorado, New Jersey, Maine, Arizona and California also have been granted HIFA waivers.

"This new HIFA initiative gives states the flexibility they need to address the growing numbers of uninsured citizens," said Secretary Thompson. "It is not a cure for the problem of citizens without coverage, but it's a first step."

Michigan expects to enroll nearly 62,000 adults who currently do not have access to health insurance, over the course of the five-year demonstration.

For adults, the benefit package will include inpatient, outpatient, physician's surgical and medical services, laboratory and X-ray services, pharmacy and mental health and substance abuse services. Michigan will offer employer-sponsored health insurance through a voucher that is equal in value to the state's cost of providing service. Enrollment in the employer-sponsored plan is in lieu of receiving benefits through the state plan. HIFA is an innovative Medicaid and SCHIP waiver approach that gives states greater flexibility to design health insurance programs that best suit their own needs. The Bush Administration is putting particular emphasis on broad statewide approaches to increase the number of citizens with health care coverage for low-income individuals. HIFA also encourages coordination between public and private coverage options for the uninsured.

## NEW TSC PUBLICATIONS:

**RESEARCH HIGHLIGHT:** Van Slegtenhorst M, Carr E, Stoyanova R, Kruger W, Henske EP (2004) **Tsc1+ and tsc2+ regulate arginine uptake and metabolism in Schizosaccharomyces pombe.** J Biol Chem 2004 Jan 12 [Epub ahead of print] <http://www.jbc.org/cgi/reprint/M313874200v1>

**Abstract:** Mutations in either TSC1 or TSC2 cause tuberous sclerosis complex, an autosomal dominant disorder characterized by seizures, mental retardation, and benign tumors of the skin, brain, heart and kidneys. Homologs for the TSC1 and TSC2 genes have been identified in mouse, rat, Fugu, Drosophila and in the yeast Schizosaccharomyces pombe. Here, van Slegtenhorst and her colleagues at Fox Chase Cancer Center in Philadelphia show that *S. pombe* lacking *tsc1+* or *tsc2+* have similar phenotypes, including decreased arginine uptake, decreased expression of three amino acid permeases, and low intracellular levels of four members of the arginine biosynthesis pathway. Recently, the small GTPase Rheb was identified as a target of tuberins GTPase activating domain in mammalian cells and in Drosophila. They show that the defect in arginine uptake in cells lacking *tsc2+* is rescued by expression of a dominant negative form of *rhb1+*, the Rheb homolog in *S. pombe*, but not by expressing wild-type *rhb1+*. Expression of the *tsc2+* gene with a patient-derived mutation within the GAP domain does not rescue the arginine uptake defect in *tsc2+* mutant yeast. Taken together, these findings support a model in which arginine uptake is regulated through *tsc1+*, *tsc2+* and *rhb1+* in *S. pombe* and also suggest a role for the Tsc1 and Tsc2 proteins in amino acid biosynthesis and sensing.

**CLINICAL HIGHLIGHT:** Aldenkamp A, Arends J (2004) **The relative influence of epileptic EEG discharges, short nonconvulsive seizures, and type of epilepsy on cognitive function.** Epilepsia 45(1):54-63

**Abstract:** This study at the University Hospital of Maastricht in The Netherlands addressed whether cognitive impairment in children with epilepsy is caused by disease-related stable factors, such as the type of epilepsy, or by acute effects of paroxysmal epileptic activity such as epileptic EEG discharges. The authors studied a nonselected group with short nonconvulsive seizures, as these seizures may elude detection and may therefore persist over a longer period. In this group, the diagnostic issue is to differentiate between the combined effects of several epilepsy-related factors on cognition. All children were assessed with 32-channel EEG, synchronized with a computerized cognitive test system and a video-monitoring system. Recording time was 2 h. The primary inclusion criteria were unclear seizures and fluctuations in cognitive performance and/or frequent epileptic EEG discharges in a recent EEG. Results: One hundred fifty-two patients met the inclusion criteria; 31 patients appeared not to have a diagnosis of epilepsy and were used as a nonepilepsy control group. Their results show that type

of epilepsy has an impact on stable cognitive functions, such as educational achievement. Paroxysmal epileptic activity (acute effects of seizures and epileptic EEG discharges) affects primarily transient mechanistic cognitive processes (alertness, mental speed). The results suggest that the effects of paroxysmal epileptic activity on transient cognitive mechanisms may accumulate over time and consequently affect the more stable aspects of cognitive function such as educational achievement. The clinical relevance is that early detection of the cognitive impact of seizure-related activity and subsequent treatment may prevent its detrimental impact on cognitive and educational development.

### **NEW PUBLICATIONS:**

Aldenkamp A, Arends J (2004) The relative influence of epileptic EEG discharges, short nonconvulsive seizures, and type of epilepsy on cognitive function. *Epilepsia* 45(1):54-63

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## CONFERENCES:

For a complete listing of conferences, visit the TS Alliance website at:  
<http://216.33.101.121/Research/upcoming%20conferences.asp>

### **February 10-11, 2004**

#### **Overcoming Tomorrow's Research Challenges**

Office of Human Research Protection National Conference

Honolulu, Hawaii

<http://home.hawaii.rr.com/ohrpsra/>

### **March 17-20, 2004**

#### **National Association for the Dually Diagnosed - International Congress V**

The Fairmont Copley Plaza Hotel, Boston, MA

Register Online: <http://www.thenadd.org>

### **March 26-28, 2004**

#### **LAM Foundation Research Conference**

Westin, Downtown Cincinnati, OH

<http://lam.uc.edu/html/abstract.html>

### **March 31 & April 1-2**

#### **Recognizing and Protecting Vulnerable Subjects: Theory, Practice, and Compliance**

Pre-Conference Workshop: **IRB FHRP: Fundamentals of Human Research Protections**

Office of Human Research Protection National Conference

Orlando, FL

<http://www.friendsresearch.org/OrlandoOHRPSaveDate6.pdf>

### **May 11, 2004**

#### **Biannual Interagency Autism Coordinating Committee Meeting**

Meeting Time: 8:30 a.m. to 4:30 p.m.

National Institutes of Health, Building 31, Conference Room 10 (6th floor), Bethesda, Maryland

Contact Information: Pamela Mitchell, NIMH, Phone: 301-443-4627, Email: [pmitchel@mail.nih.gov](mailto:pmitchel@mail.nih.gov)

<http://www.nimh.nih.gov/autismiacc/events.cfm#05112004>

### **June 21-23, 2004**

#### **The 2004 U.S. Federal and DoD Medical Research Acquisition, Logistics & Technology Conference**

Baltimore Convention Center

For **registration** information, please contact Maurice Martin, (703) 807-2753

For information on **exhibitor arrangements**, please contact Donna Anderson, (703) 807-2740

For information on **sponsorships**, please contact Cara Lombardi, (703) 807-2743

For **general information** (i.e., agenda, hotel, speakers), please contact Laura Johnson, (703) 807-2747

### **September 16-18, 2004**

#### **TSC International Research Conference 2004**

#### **TSC Genes - Function and Dysfunction - From Molecular Biology to Therapeutic Advances**

Organized by the Tuberous Sclerosis Association of Great Britain

Queens' College, University of Cambridge, Cambridge UK

Deadline for Submission of Abstracts for spoken presentations or posters: March 20, 2004

Poster abstracts for late breaking research will also be accepted until August 1, 2004

See Tuberous Sclerosis Association Web site for additional information and forms at:

<http://www.tuberous-sclerosis.org/research/conference/index.shtml>

For any queries please contact Ann Hunt at: [research@tuberous-sclerosis.org](mailto:research@tuberous-sclerosis.org)

or telephone/fax: 44 (0)1993 881238

### **October 13-16, 2004**

#### **Child Neurology Society Annual Meeting**

Westin Ottawa, Ottawa, Canada

[http://www.childneurologysociety.org/events/evt\\_001.asp](http://www.childneurologysociety.org/events/evt_001.asp)

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