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HHS Launches NHLBI-Developed Childhood Obesity Prevention Program

On June 1st, HHS Secretary Mike Leavitt announced the launch of **We Can!**, Ways to Enhance Children's Activity & Nutrition, a national education program developed by the NHLBI and supported by 3 other NIH Institutes that encourages healthy eating and increased physical activity.

The science-based **We Can!** program helps parents teach their children to eat a sufficient amount of a variety of fruits and vegetables per day; choose small portions at home and at restaurants; eat fewer high-fat foods and energy-dense foods that are low in nutrient value; substitute water or fatfree or low-fat milk for sweetened beverages such as sodas; engage in at least 60 minutes of moderate physical activity on most, preferably all, days of the week; and reduce time spent in front of televisions, computers, and the like to no more than two hours per day.

New evidence suggests that teaching children and their parents how to make lifestyle changes like the ones proposed in We Can! can have an impact. Results of the NHLBI-supported Dietary Intervention Study in Children (DISC) show that children ages 8 to 10 who were enrolled in a behaviorally oriented nutrition education program with their parents and were taught to follow a diet low in saturated fat and dietary cholesterol reported switching from calorie-dense and high-fat foods to foods that were lower in saturated fat, total fat, and dietary cholesterol. The children in the program adopted better dietary habits over several years compared with their peers who received only general nutritional information.

The DISC findings provide an insight into real-world eating behavior and document the challenges of trying to eat a healthy diet in a fast-paced world. For example, the study confirmed a long-suspected phenomenon of modern society: approximately one-third of the total daily calories consumed by children came from snack foods, desserts, and pizza. *Continued on page 2*

Vitamin E: No "Magic Bullet"

Vitamin E supplements do not protect healthy women from cardiovascular disease or cancer, according to the latest results from the Women's Health Study (WHS). In recent years, a great deal of public and scientific interest has been focused on the potential of antioxidant vitamins such as vitamin E to reduce the risk of developing two of the most common causes of illness and death. However, the WHS, which randomly assigned women to receive vitamin E or a placebo and followed them for 10 years, found no effect of vitamin E supplementation on heart attacks, strokes, or total deaths. Moreover, trial participants who received vitamin E showed no reduction in rates of breast, lung, colon, or other cancers, or in cancer-related deaths. Earlier results from the WHS, reported in 1999, had revealed no benefit from another antioxidant vitamin, beta-carotene, in preventing cardiovascular disease or cancer.

In commenting on the cardiovascular disease findings, Dr. Nabel said, "This landmark trial has given women and their physicians important health information. We can now say that despite their initial promise, vitamin E supplements do not prevent heart attack and stroke. Instead, women should focus on well-proven means of heart disease prevention, including leading a healthy lifestyle and controlling risk factors such as high blood pressure and high cholesterol."

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Upcoming NHLBI Workshops and Working Groups*

Workshop or Working Group	Date / Location	Contact for More Information
Host Response to Persistent Airway Bacterial Load in Cystic Fibrosis and Primary Ciliary Dyskinesia	September 12-13, 2005 Bethesda, MD	Dr. Susan Banks-Schlegel schleges@nhlbi.nih.gov 301-435-0202
Modifiers of Arrhythmias: New Targets for Therapy and Prevention	September 14, 2005 Bethesda, MD	Dr. David Lathrop lathropd@nhlbi.nih.gov 301-435-0507
Clinical Questions in Aortic Aneurysms: Diagnosis and Management	September 19, 2005 Bethesda, MD	Dr. Suzanne Goldberg goldbergs@nhlbi.nih.gov 301-435-0515
Resources for Late-Stage Drug Development for Hemoglobin Disorders	September 20, 2005 Bethesda, MD	Dr. Greg Evans <u>evansg@nhlbi.nih.gov</u> 301-435-0056
Blood Vessel Maturation (Arteriogenesis)	September 21, 2005 Bethesda, MD	Dr. Stephen Goldman goldmans@nhlbi.nih.gov 301-435-0560
The Intrauterine Environment: Long-term Consequences for Obesity and Metabolic Disease	September 26-27, 2005 Bethesda, MD	Dr. Cristina Rabadan rabadanc@nhlbi.nih.gov 301-435-0550
Strategic Plan for Lung Disease Working Group	September 2005 Bethesda, MD	Dr. James Kiley kileyj@nhlbi.nih.gov 301-435-0233
Cellular and Molecular Mechanisms of Right Heart Hypertrophy and Failure	October 6-7, 2005 Bethesda, MD	Dr. Elizabeth Denholm denholme@nhlbi.nih.gov 301-435-0222
Integrative Approach to Identify Patients at High Risk of a Cardiovascular Event in the Near Future	December 5-6, 2005 Bethesda, MD	Dr. Eser Tolunay tolunaye@nhlbi.nih.gov 301-435-0545
Cardiovascular Consequences of COPD	March 2006 Bethesda, MD	Dr. Thomas Croxton croxtont@nhlbi.nih.gov 301-435-0202

^{*}PIO representatives will be accommodated on a space-available basis and will be responsible for their own travel expenses.

Working Group on Cardiomyopathies in Children with Rare Diseases

The NHLBI convened a working group to advise it and the NIH Office of Rare Diseases on research needed to understand the cause of cardiomyopathies in children with rare diseases and to improve care for them.

Hypertrophic cardiomyopathy is a genetic disorder characterized by left ventricular hypertrophy. The outlook for children with cardiomyopathy is bleak. Almost 40 percent of them die or require a heart transplant, and so far medical research has not significantly altered their prognosis.

The working group discussions focused on gaps in knowledge, the inability to

screen and diagnose cardiomyopathies in children, and the inability to provide adequate treatment. Recommendations were to convene a group to define standards of care, establish a task force to identify research priorities and scientific opportunities, develop new technologies and screening methods to find cardiac gene mutations related to pediatric cardiomyopathies, develop new animal models, determine the mechanisms involved in viral myocardial disease, establish an on-line health information system, initiate a clinical treatment trial of ACE inhibitors in Duchenne muscular dystrophy patients asymptomatic for cardiac dysfunction, and stimulate research on enzyme replacement therapy.

The full executive summary is available online at www.nhlbi.nih.gov/meetings/workshops/cardiomyopathies.htm.

Childhood Obesity Prevention Program

Continued from page 1

"DISC demonstrates that children and their families can learn to enjoy healthy foods and to be selective about their food choices – habits that will hopefully stay with them throughout their lives," said NHLBI Director Elizabeth G. Nabel, M.D. "The study also showed that children and their families need the right tools to help them make positive lifestyle changes."

We Can! materials include a parents' handbook available in Spanish or English. For more information, visit http://wecan.nhlbi.nih.gov or call toll-free 866-35-WE CAN (866-359-3226).

NHLBI Research Initiatives

From time to time, the NHLBI invites investigators to submit grant applications or contract proposals for specific research programs. We currently are soliciting applications for the following programs. Unless a due date is mentioned, applications are accepted for February 1, June 1, and October 1 deadlines each year. For full descriptions of these and other research initiatives, visit www.nhlbi.nih.gov/funding/inits/index.htm.

Anemia in the Elderly (RFA AG-06-002)

Applications due: January 20, 2006

Objective: To explore the epidemiology, pathophysiology, and clinical aspects of anemia in the elderly.

Biology of RNA Interference: Stability, Delivery, and Processing by Tissues (RFA HL-05-019)

Applications due: January 18, 2006

Objective: To increase the understanding of the biology of RNA Interference, an effective post-transcriptional strategy for silencing genes, in order to explore its therapeutic potential for a wide range of heart, lung, and blood diseases.

Cardiovascular Cell Therapy Research Network (RFA HL-06-001)

Applications due: March 10, 2006

Objective: To promote the evaluation of new cell therapy treatment strategies for individuals with cardiovascular disease.

Directed Stem Cell Differentiation for Cell-Based Therapies for Heart, Lung, Blood, and Aging (PA-05-043 and PA-05-044)

Objective: To develop methods to direct the differentiation or development of stem cells along specific cell lineages to yield replacement cells for clinical use.

Hispanic Community Health Study – Field Centers and Coordinating Center (RFP-NHLBI-HC-06-02 and RFP-NHLBI-HC-06-01)

Applications due: December 1, 2005

Objective: To identify, recruit, examine, and follow community-based cohorts of Hispanic adults in an effort to identify factors that influence risk, such as nutrition habits, access to health care, and the role of family and community.

Lung Response to Inhaled Highly Toxic Chemicals (PA-05-058)

Objectives: To stimulate research on airborne chemical threats that affect the upper and lower respiratory tract, and identify potential therapies to prevent or limit development of pulmonary edema, a major complication of chemical irritation.

Muscular Dystrophy: Pathogenesis and Therapies (PA-05-038)

Objectives: To study the pathogenesis of muscular dystrophies (MD), a group of diseases characterized by progressive weakness and wasting of muscles, and to develop therapies for them. Premature death due to MD is often due to cardiac or respiratory failure.

Nutrition and Diet in the Causation, Prevention, and Management of Heart Failure (PA-05-089)

Objective: To investigate the role of nutrition and diet in cardiomyopathies and heart failure (HF) in order to develop a science base for preventive approaches in high-risk individuals and for rational nutritional management of patients in various stages of HF.

Pediatric Heart Network (RFA HL-05-010)

Applications due: September 23, 2005

Objectives: To provide an infrastructure for multi-center clinical research; to evaluate medical, interventional, and surgical therapies; and to serve as a clinical trials training ground for fellows and junior faculty. The mission of the Network is to improve the health of children and adults with structural congenital heart defects, as well as children with inflammatory heart disease, heart muscle disease, and arrhythmias.

Proteomic Studies of Platelet Functions (RFA HL-05-020)

Applications due: January 12, 2006

Objective: To use proteomic tools to develop more quantitative definitions of platelet disorders and uncover new markers of platelet function, which in turn may improve the prediction of platelet function and better guide clinical therapy.

Research on Sleep and Sleep Disorders (PA-05-046)

Objectives: To advance biomedical knowledge related to sleep or sleep disorders, to improve understanding of the functions of sleep, to enhance timely diagnosis and effective treatment of sleep-related disorders, and to implement and evaluate innovative community-based public health education and intervention programs.

Short-Term Training Program to Increase Diversity in Health-Related Research (R25) (RFA HL-05-018)

Applications due: July 19, 2006

Objective: To provide opportunities for under-represented racial and ethnic minority students and for socially, culturally, economically, or educationally disadvantaged students at the undergraduate and graduate levels to be exposed to biomedical research in areas relevant to cardiovascular, pulmonary, and hematologic diseases, and sleep disorders.

National Heart, Lung, and Blood Advisory Council's June Meeting

June 16, 2005

Dr. Nabel informed the Council of her plans to write a series of journal editorials addressing timely topics of interest to the research community. Her first, entitled "A Vision for the Future: Opportunities and Challenges," was published this summer in *The American Journal of Respiratory and Critical Care Medicine, Blood, Circulation*, and *Sleep*.

Dr. Nabel announced the initiation of We Can! (see article on page 1). It provides resources and community-based programs for parents, caregivers, and youth to encourage healthy eating, increase physical activity, and reduce sedentary time. More than 35 communities have already agreed to implement We Can! programs, and the NHLBI will be seeking more partners in a variety of community settings to use and distribute program materials.

Dr. Nabel noted the austere financial times currently faced by the NIH. The proposed FY 2006 President's Budget

for the NHLBI is \$2,951.3 million, a 0.3 percent increase over the Institute's FY 2005 appropriation.

Dr. Nabel initiated discussion about the possibility of establishing NHLBI Centers of Excellence in heart, lung, blood, and sleep disorders. As background, Dr. James Kiley reviewed the Institute's approach to clinical research. Council members were supportive of the Centers concept.

Dr. Helena Mishoe discussed current NHLBI practices to foster independence of new investigators, as well as potential future strategies. Dr. Nabel emphasized that the Institute is looking at both short- and long-term approaches to helping new investigators, as well as contributing to NIH-wide approaches.

Thirteen new initiatives that had been reviewed by the Board of Extramural Advisors in April were presented to the Council, which supported all of them.

During the closed portion of the meeting, the Council concurred on the award of 315 grants for a total cost of \$176,195,000.

The next Council meeting is scheduled for 8:30 a.m. on September 16, 2005. It is open to the public and will be held in NIH Building 31C, Conference Room 10. Full minutes of Council meetings and summaries of the initiatives are available at www.nhlbi.nih.gov/meetings/nhlbac.

September is . . .

National Cholesterol Education Month

(www.nhlbi.nih.gov/about/ ncep/index.htm)

and

National Sickle Cell Month (www.sicklecelldisease.org)

News from Capitol Hill

NIH Reauthorization

At a hearing on July 19, NIH Director Dr. Elias Zerhouni and members of the House Committee on Energy and Commerce discussed draft legislation to reauthorize the NIH. The proposed bill included a provision to establish within the NIH Director's office a Division of Program Coordination, Planning, and Strategic Initiatives, which would coordinate research on topics that do not have a "home" under the present NIH structure and would develop new trans-NIH programs.

Fiscal Year (FY) 2006 Appropriations Acts

On June 24, 2005, the House of Representatives passed its version of the Departments of Labor, Health and Human Services, and Education 2005 appropriations act (H.R. 3010). As requested in the President's budget, the bill includes \$2,951,270 for the NHLBI. This is an increase of 0.3 percent over the \$2,941,201 that the NHLBI received in FY 2005. The Senate version, which the appropriations committee approved on July 14, includes \$3,023,381 for the NHLBI.

House Report 109 143 and Senate Report 109 103 mention numerous diseases of interest to the NHLBI, including alpha-1 antitrypsin deficiency, aplastic anemia, asthma, chronic obstructive pulmonary disease (COPD), Cooley's anemia, cystic fibrosis, diabetes, Diamond-Blackfan anemia, Duchenne muscular dystrophy, heart failure, hemophilia, hereditary hemorrhagic telangiectasia, lupus, lymphangioleiomyomatosis (LAM), lymphedema, Marfan syndrome, pulmonary fibrosis, pulmonary hypertension, scleroderma, stroke, thrombophilia, and thrombosis. Blood safety, gene therapy, obesity, sleep, stem cells, and transplantation research also are addressed.

New Legislation

Several bills relevant to the NIH were introduced this summer, including the Pulmonary Hypertension Research Act of 2005 (H.R. 3005), the Family Asthma Act (S. 1489), and the Lupus Research, Education, Awareness, Communication, and Healthcare Amendments of 2005 (H.R. 3307). New resolutions of interest to the NHLBI address topics such as congenital heart defects (H.Res. 305), idiopathic pulmonary fibrosis (H.Con.Res. 178), and bone marrow failure diseases (H.Con.Res. 179).

Activity Date/Location More Information American Academy of Family Physicians September 28 - Oct. 2 www.aafp.org/x32287.xml Annual Scientific Assembly San Francisco, CA Pulmonary Hypertension Association September 30 - Oct. 1 www.phassociation.org/PHRN/symposium/index.asp PH Resource Network Symposium Bethesda, MD Hereditary Hemorrhagic Telangiectasia Foundation October 1 www.hht.org/web/conference/mini conference.php Northwest Regional Mini-Conference Portland, OR Histiocytosis Association of America October 8 www.histio.org/association/events/Stanford Regional.

Upcoming Events

Regional Patient/Family Meeting Palo Alto, CA shtml
Adult Congenital Heart Association October 15 www.achaheart.org/conference/index.php
Southeastern Regional Conference Orlando, FL

Aplastic Anemia & MDS International Foundation

October 17-19

Www.aplastic.org/symposium-index.shtml?press_name=

Symposium&n=209

Washington, DC

American Association of Cardiovascular & October 20-23 <u>www.aacvpr.org/meeting/registration.cfm</u>
Pulmonary Rehabilitation 20th Annual Meeting Milwaukee, WI

Adult Congenital Heart Association

October 22 <u>www.achaheart.org/conference/index.php</u>
Los Angeles Area Regional Conference

Manhattan Beach, CA

National Heart, Lung, and Blood Advisory

October 26 <u>www.nhlbi.nih.gov/meetings/nhlbac/index.h</u>

National Heart, Lung, and Blood Advisory

October 26

www.nhlbi.nih.gov/meetings/nhlbac/index.htm

Bethesda, MD

 National Hemophilia Foundation
 October 27-29
 www.hemophilia.org/NHFWeb/StaticPages/

 57th Annual Meeting
 San Diego, CA
 AnnualMeeting/index.aspx?menuid=36

 American College of Chest Physicians
 October 29 - Nov 3
 www.chestnet.org/CHEST/index.php

American College of Chest Physicians

Annual Meeting - CHEST 2005

American Society of Bariatric Physicians

October 29 - Nov. 3

Montréal, Québec

www.asbp.org/vegas/introduction.htm

Annual Obesity & Associated Conditions Symposium Las Vegas, NV

American Public Health Association November 5-9 www.apha.org/meetings/index.htm

133rd Annual Meeting

New Orleans, LA

Restless Legs Syndrome Foundation

November 11-12

www.rls.org/nationalmeeting.htm

Third National Patient Meeting Orlando, FL

American Heart Association November 13-16 scientificsessions.americanheart.org/portal/

Scientific Sessions 2005

Dallas, TX

Scientificsessions/ss/

American Society of Hematology December 3-6 <u>www.hematology.org/meetings/2005/index.cfm</u>
47th Annual Meeting and Exposition New Orleans, LA

Research Advances from the NHLBI

Using Genomic Research to Solve a Clinical Dilemma

New results from the NHLBI Programs for Genomic Applications may change prescribing practices of clinicians who order blood thinners to prevent dangerous blood clots. Physicians have been giving warfarin to patients since the 1950s, but they still use trial-and-error to determine the appropriate dose. In search of a way to predict the amount of warfarin that would adequately protect a patient from excessive blood clotting without causing uncontrolled bleeding, investigators analyzed blood samples from patients who were being treated with warfarin. They were able to identify genetic markers that correlated with whether a patient responded best to a low, intermediate, or high dose of the drug. This observation may pave the way for development of a blood test to guide physicians in prescribing safe and effective doses of blood thinners.

Researchers Identify Genetic Profiles in Childhood Asthma

In the first study to link clusters of genes to specific forms of childhood asthma, researchers supported by the NHLBI used "gene-chip" microarray technology to compare respiratory epithelial cells from normal children, children with controlled (stable) asthma, and children with asthma exacerbations (acute asthma). They sifted through over 54,000 genes for each child studied and found eight distinct gene clusters that were differentially regulated in stable and acute asthma. One cluster was exclusively linked to acute asthma, while another was linked to stable asthma, suggesting that children with an active asthma exacerbation have a gene expression profile that is clearly different from that of controlled asthma. The findings open the door for molecular subclassification of asthma and the possibility of developing precisely targeted treatments based on unique genetic profiles in patients.

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Constituents' Corner



From Progeria Research Foundation Sponsoring International Workshop

The fourth workshop sponsored by the Progeria Research Foundation (PRF) will be held in Boston, Massachusetts, on November 3-5, 2005. The PRF was founded in 1999 to discover the cause, treatment, and cure for Hutchinson-Gilford Progeria Syndrome ("the premature aging syndrome") and its aging-related disorders. The 2005 Workshop will consider research, based on the 2003 discovery of a key gene mutation, that has sought to define cellular and biochemical defects in Progeria cells and in mouse models for the disease. Presentations and posters will include reports on the reversal of the Progeria phenotype, the results of which, taken together with clinical natural history studies to be reported, are providing key information for planning clinical trials. Speakers will include Dr. Nabel and Dr. Francis Collins, Director, National Human Genome Research Institute. All interested scientists and physicians are welcome. For more information about the Workshop, contact Audrey Gordon, Executive Director, at agordon@progeriaresearch.org. Submitted by Audrey Gordon, Progeria Research Foundation

From Pulmonary Fibrosis Foundation Celebrating Five Years of Progress

The Pulmonary Fibrosis Foundation is hosting *An Evening of Recognition* to celebrate five years of progress in the fight against pulmonary fibrosis on September 17, 2005, in Chicago, Illinois. The event is designed to raise awareness and funds to find a cure for the disease. For more information, contact the Foundation at 312-587-9272 or visit www.pulmonaryfibrosis.org.

Additionally, the Foundation announces November as Pulmonary Fibrosis Month and November 22 as Pulmonary Fibrosis Day for the State of Illinois and is hoping to have the remaining 49 states adopt similar resolutions.

Submitted by Vakarie Roberts, Pulmonary Fibrosis Foundation

From Scleroderma Foundation Informing Health Professionals

The Scleroderma Foundation has dedicated a section of its Web site to helping physicians, nurses, and other health professionals locate resources for scleroderma and related conditions. It includes links to a comprehensive collection of articles and abstracts and a listing of continuing medical education activities to help health professionals stay abreast of current treatment strategies and research. For more information visit

www.scleroderma.org/medical/healthprof.shtm or call 800-722-4673.

Submitted by Carolyn Weller, Scleroderma Foundation

From Narcolepsy Network, Inc. Hosting the Boston Sleep Party

The Narcolepsy Network, Inc., is celebrating its 20th anniversary during its 2005 Annual Conference on November 11-13, 2005 in Boston, Massachusetts. Patients and their families will learn new approaches to living with narcolepsy and cataplexy, the latest information on drug therapies, and energy-enhancing techniques. For more information visit www.NarcolepsyNetwork.org or call 888-292-6522.

Submitted by Eveline Honig, Narcolepsy Network, Inc.

From Lymphatic Research Foundation Raising Lymphatic System Awareness

The Lymphatic Research Foundation is delighted to note the publication of an article "Unlocking the Drains" in the July 2005 issue of *Nature* (Vol. 436, 28, pp. 456-58) that highlights the importance of the lymphatic system. It is rewarding to see efforts to raise awareness of the need for lymphatic research paying off. For more information on the Lymphatic Research Foundation, visit www.lymphaticresearch.org.

Submitted by Wendy Chaite, Lymphatic Research Foundation



We invite you to use this space that we reserve for you to share your successes and opinions. You may submit your ideas and articles to nhlbi.listens@nih.gov or Public Interest News, Office of Science and Technology, Building 31, Room 5A03, 31 Center Drive, MSC-2482, Bethesda, MD 20892-2482.



Need More Information?

We are always interested in receiving comments and suggestions from the community. If you or your organization have questions for me or for the Institute, please contact me at nabele@nhlbi.nih.gov or Dr. Carl Roth at rothc@nhlbi.nih.gov.

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Elizabeth G. Nabel, M.D. Director, NHLBI

For information on specific issues, the following contacts may be helpful:

- For health-related questions and publications, please contact the trained information specialists at the NHLBI Information Center (NHLBIinfo@nhlbi.nih.gov) or write to the Information Center at P.O. Box 30105, Bethesda, MD 20824-0105.
- For communications pertaining to NHLBI policies and priorities, contact the NHLBI Office of Public Liaison (nhlbi.listens@nih.gov).
- For additional information regarding NHLBI events, consult the references provided or www.nhlbi.nih.gov/calendar/nhcal.htm.
 Most other NIH Institutes and Centers also maintain calendars on their Web sites. Links to their Web pages are at www.nih.gov/icd.