



FROM THE NATIONAL DIGESTIVE DISEASES INFORMATION CLEARINGHOUSE

Celiac Disease Awareness Campaign • [www.celiac.nih.gov](http://www.celiac.nih.gov)

A service of the National Institute of Diabetes and Digestive and Kidney Diseases, NIH

Spring 2012

## Researchers Identify New Genetic Variants Associated with Celiac Disease

Adapted from NIDDK Recent Advances & Emerging Opportunities

Scientists have uncovered new genetic variants that are associated with the risk of celiac disease and have linked these variants to four pathways of the immune system.

In an earlier study, scientists conducted a genome-wide association (GWA) study to identify two gene variants that are required for celiac disease, and 12 chromosome regions that are associated with a risk for the disease. Although these findings were impressive, it was determined that all of the known variants did not account entirely for the genetic risk of celiac disease. In the new study, scientists set out to identify variants that may have smaller, yet critical, effects on disease risk. This was accomplished with a larger GWA study that included DNA samples from a larger number of patients with celiac disease and healthy volunteers. The samples were analyzed using a denser concentration of probes to identify differences in the DNA sequences of the patients compared with those of the volunteers.

This approach was successful in uncovering 13 new chromosome regions that are associated with celiac disease, and 13 additional



chromosome regions with suggestive associations with celiac disease. Many of these regions were found to contain genes with functions related to the immune system. In addition, uncovering the genetic variants led the scientists to identify four specific immunological pathways that are relevant to the pathogenesis of celiac disease. The

scientists also found that more than half of the variants associated with celiac disease correlate

**NEW GENETIC VARIANTS,**  
 continued on page 2

### Inside This Issue

Human and Mouse Studies Sharpen Focus on Cause of Celiac Disease	3
Study Finds Mixed Effects of Undiagnosed Celiac Disease in Older Adults	4
NIH Research Model Predicts Weight with Varying Diet, Exercise Changes	5
New NIH Center Will Translate Research Discoveries into New Drugs, Devices	8
NIH Grantees Win 2011 Nobel Prize in Physiology or Medicine	12
Resources	15
Upcoming Meetings, Workshops, and Conferences	15



**NEW GENETIC VARIANTS**, continued from page 1

with the extent to which nearby genes are turned on or turned off (expressed), indicating that the variants may increase the risk of celiac disease by influencing the expression of other genes. These new findings have advanced knowledge of celiac disease and may also have important implications for other autoimmune diseases, such as type 1 diabetes.

The National Institutes of Health Celiac Disease Awareness Campaign provides current,

comprehensive, science-based information about the symptoms, diagnosis, and treatment of celiac disease, also known as celiac sprue, nontropical sprue, and gluten-sensitive enteropathy. The Awareness Campaign is an initiative of the National Digestive Diseases Information Clearinghouse, a service of the National Institute of Diabetes and Digestive and Kidney Diseases.

Download this publication and learn more about the Awareness Campaign at

[www.celiac.nih.gov](http://www.celiac.nih.gov). ■

## Would you like to know more about NIDDK-supported research?

The National Institutes of Health (NIH) provides access to a variety of reporting tools, reports, data, and analyses of NIH research activities at the Research Portfolio Online Reporting Tools (RePORT) website, [www.projectreporter.nih.gov/reporter.cfm](http://www.projectreporter.nih.gov/reporter.cfm). One of the tools available is RePORT Expenditures and Results (RePORTER), which allows users to search a repository of NIH-funded research projects and access and download publications and patents resulting from NIH funding. ■

### **CELIAC DISEASE News**

*Celiac Disease News*, an email newsletter, is sent to subscribers by the National Digestive Diseases Information Clearinghouse (NDDIC). The newsletter features news about celiac disease, special events, patient and professional meetings, and new publications available from the NDDIC and other organizations.

Please visit [www.celiac.nih.gov/Newsletter.aspx](http://www.celiac.nih.gov/Newsletter.aspx) to read or download a PDF version or to subscribe to the newsletter.

The National Institutes of Health Celiac Disease Awareness Campaign provides current, comprehensive, science-based information about the symptoms, diagnosis, and treatment of celiac disease, also known as celiac sprue, nontropical sprue, and gluten-sensitive enteropathy. The Awareness Campaign

is an initiative of the NDDIC, a service of the National Institute of Diabetes and Digestive and Kidney Diseases.

Visit [www.celiac.nih.gov](http://www.celiac.nih.gov) to learn more about the Awareness Campaign.

**Executive Editor: Stephen P. James, M.D.**

Dr. James is the director of the Division of Digestive Diseases and Nutrition within the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK). As director, Dr. James oversees planning, implementation, and evaluation of a national research effort focused on gastrointestinal, pancreatic, hepatobiliary, and nutrition diseases and conditions. Before joining the NIDDK in 2001, Dr. James directed the division of gastroenterology at the University of Maryland's School of Medicine for 10 years.



## Human and Mouse Studies Sharpen Focus on Cause of Celiac Disease

Adapted from UChicagoNews

**B**locking a factor that can activate the human immune response against intestinal bacteria or certain foods could prevent the development of celiac disease in those most at risk, researchers reported in the journal *Nature*.



“In a stressed intestinal environment, retinoic acid, which was thought to lessen inflammation in the intestine, acted as an adjuvant that promoted rather than prevented inflammatory cellular and humoral responses to fed antigen.”

**Bana Jabri, M.D., Ph.D.**  
Associate Professor of  
Medicine and Pathology,  
University of Chicago, and  
co-authors

The study points to two chemical signals—interleukin 15 and retinoic acid, a derivative of vitamin A—as triggers for the inflammatory response to gluten, a protein found in many grains that causes celiac disease.

“We found that having elevated levels of IL-15 in the gut could initiate all the early stages of celiac disease in those who were genetically susceptible, and that blocking IL-15 could prevent the disease in our mouse model,” said Bana Jabri, associate professor of medicine and pathology, co-director of the Digestive Disease Research Core Center and a member of the Celiac Disease Center and Comprehensive Cancer Center at the University of Chicago.

“It also demonstrated that in the treatment of inflammatory intestinal diseases, vitamin A and its retinoic acid metabolites are likely to do more harm than good,” she said.

Celiac disease, which affects about one out of 100 people, is a digestive disorder triggered by the protein gluten, found in wheat, barley and rye. Gluten can trigger an autoimmune reaction in the intestines of genetically susceptible people. This prevents the proper absorption of food and nutrients, and causes a variety of gastrointestinal and extra-intestinal symptoms.

The current treatment for celiac disease is a gluten-free diet. However, many patients improve only partially on a gluten-free diet, and this diet is difficult to follow, costly and inconvenient. There is a growing interest in finding alternative therapies, such as a vaccine that could prevent disease development in genetically susceptible individuals.

Celiac disease is also associated with autoimmune disorders such as type 1 diabetes and autoimmune thyroiditis. Understanding celiac disease may speed the development of new therapies for these autoimmune disorders.

### Finding Underlying Cause for Food Allergies

For this study, Jabri and colleagues combined insights and data from celiac disease patients who had been cared for at the University of Chicago’s Celiac Disease Center with experiments using a mouse model of the disease developed in her lab.

Moving back and forth between “human data, where we develop our ideas, and mouse experiments, where we test them,” was extremely helpful, said Jabri. “In turn, the mouse model gave us insights into the human disease.”

The researchers knew that many patients with this disease had high levels of interleukin 15 in their intestines. When the researchers increased the levels of this signaling molecule in mouse intestines, the mice developed all the early symptoms of celiac disease. Adding retinoic acid to the mix only made the symptoms worse.

“In a stressed intestinal environment,” the authors noted, “retinoic acid, which was thought to lessen inflammation in the intestine, acted as an adjuvant that promoted rather than prevented inflammatory cellular and humoral responses to fed antigen.”

**CAUSE OF CELIAC DISEASE,**  
continued on page 6

## Study Finds Mixed Effects of Undiagnosed Celiac Disease in Older Adults

*Adapted from NIDDK Recent Advances & Emerging Opportunities*

Scientists studying the consequences of undiagnosed celiac disease in a population of American men and women 50 years of age and older found that undiagnosed celiac disease did not increase the risk of death over the 10-year period of the study, although other health consequences were observed.

For this study, scientists screened frozen blood samples from almost 17,000 people living in Olmsted County, Minnesota, using assays for particular antibodies that are characteristic of celiac disease. People who had not been diagnosed with clinical celiac disease but whose blood samples tested positive for the disease with two different antibody assays were classified as having undiagnosed celiac disease. Blood samples that tested negative were used for the study's control group.

Analysis of the data from this screening determined that approximately 0.8 percent of the people whose blood samples were screened had undiagnosed celiac disease. The medical records of the undiagnosed celiac group and the control group were then reviewed for more than 100 potential medical conditions, or cases of death, over the 10-year period after the blood samples had been collected. The records showed that, among the people whose blood samples had tested positively, approximately 15 percent subsequently received a clinical diagnosis of celiac disease. In contrast, no individuals in the control group were diagnosed with celiac disease.

This study did not find an increase in mortality among people with undiagnosed celiac disease, although other health risks and potential benefits



were observed in this group. The undiagnosed celiac group had increased risk of osteoporosis and hypothyroidism, but they also had lower body mass index numbers and cholesterol levels.

The aim of this study was to determine the effects of undiagnosed celiac disease on older men and women. However, the mixed study results do not clarify whether awareness of undiagnosed celiac disease in cases where there are no clinical symptoms provides a net benefit to the individual. It thus remains unclear whether screening of the general public for celiac disease is warranted.

The National Institutes of Health Celiac Disease Awareness Campaign provides current, comprehensive, science-based information about the symptoms, diagnosis, and treatment of celiac disease, also known as celiac sprue, nontropical sprue, and gluten-sensitive enteropathy. The Awareness Campaign is an initiative of the National Digestive Diseases Information Clearinghouse, a service of the National Institute of Diabetes and Digestive and Kidney Diseases.

Download this publication and learn more about the Awareness Campaign at [www.celiac.nih.gov](http://www.celiac.nih.gov). ■

# NIH Research Model Predicts Weight with Varying Diet, Exercise Changes

## Findings Challenge One-Size-Fits-All Weight Assumptions

Adapted from NIH News

“This research helps us understand why one person may lose weight faster or slower than another, even when they eat the same diet and do the same exercise.”

Kevin Hall, Ph.D.  
NIDDK

Researchers at the National Institutes of Health (NIH) have created a mathematical model—and an accompanying online weight simulation tool—of what happens when people of varying weights, diets, and exercise habits try to change their weight. The findings challenge the commonly held belief that eating 3,500 fewer calories—or burning them off exercising—will always result in a pound of weight loss.



Instead, the researchers' computer simulations indicate that this assumption overestimates weight loss because it fails to account for how metabolism changes. The computer simulations show how these metabolic changes can significantly differ among people. Findings were published in a *Lancet* issue devoted to obesity.

However, the computer simulation of metabolism is meant as a research tool and not as a weight-loss guide for the public. The computer program can run simulations for changes in calories or exercise that would never be recommended for healthy weight loss. The researchers hope to use the knowledge gained from developing the model and from clinical trials in people to refine the tool for everyone.

“This research helps us understand why one person may lose weight faster or slower than another, even when they eat the same diet and do the same exercise,” said Kevin Hall, Ph.D., an obesity researcher and physicist at the NIH's National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) and the paper's first author. “Our computer simulations can then be used to help design personalized weight management programs to address individual needs and goals.”

The online simulation tool based on the model enables researchers to accurately predict how body weight will change and how long it will likely take to reach weight goals based on a starting weight and estimated physical activity. The tool, at <http://bwsimulator.niddk.nih.gov>, simulates how factors such as diet and exercise can alter metabolism over time and thereby lead to changes of weight and body fat.

To test the model, the researchers compared predicted weight changes to actual changes in people. “Mathematical modeling lets us make and test predictions about changes in weight and metabolism over time,” Hall said. “We're developing research tools to accurately simulate physiological differences between people based on gender, age, height, and weight, as well as body fat and resting metabolic rate.”

For example, the team found that people's bodies adapt slowly to changes in dietary intake. They also found heavier people can expect greater weight change with the same change in diet, though reaching a stable body weight will take them longer than people with less fat.

**MODEL PREDICTS WEIGHT,**  
continued on page 6

**CAUSE OF CELIAC DISEASE**, continued from page 3

This pro-inflammatory effect in a stressed intestine also may help explain the connections between Accutane—a vitamin A metabolite given for the treatment of severe acne—and the onset of inflammatory bowel disease.

When researchers blocked IL-15, however, the diseased mice reverted to normal, and were once again able to tolerate gluten.

Clinical trials of medications that block IL-15 are already under way for patients with rheumatoid arthritis, another inflammatory disorder. Early results have been encouraging. Blocking IL-15 or IL-15 signaling may be a way to restore oral tolerance to gluten and allow effective responses to vaccines aimed at preventing development of celiac disease, according to Jabri.

This study is the first to identify an abnormal pathway leading to loss of tolerance to dietary antigens. It suggests that a “dysregulated intestinal environment may be the underlying cause for food allergies,” Jabri said. What type of dysregulation is responsible for other food allergies, such as to peanuts, is not yet known.

The Digestive Disease Research Core Center at the University of Chicago, the Crohn’s and Colitis Foundation, and the National Institutes of Health funded this research.

The NIH Celiac Disease Awareness Campaign provides current, comprehensive, science-based information about the symptoms, diagnosis, and treatment of celiac disease, also known as celiac sprue, nontropical sprue, and gluten-sensitive enteropathy. For more information, visit [www.celiac.nih.gov](http://www.celiac.nih.gov). ■

**MODEL PREDICTS WEIGHT**, continued from page 5

The model also points to a potential simplified method to approximate weight loss in an average overweight person. An adult who has a body mass index (a measure of a person’s weight in relation to his or her height) between 25 and 29.9 is considered overweight. One example: For every pound you want to lose, permanently cut 10 calories from your current intake per day. At that rate, it will take about 1 year to achieve half of the total weight loss, and almost all of the weight loss will have occurred by 3 years. This calculation shows how long it takes to achieve a weight-loss goal for a single permanent change of diet or exercise. Researchers can use the Web simulation tool to plan for a phase of more-rapid weight loss followed by a weight maintenance phase. People should consult with their physician prior to embarking on a diet plan.

“By using our model to track progress, clinicians can help people re-evaluate their goals and ability to achieve them at the pace they want,” Hall said. “It’s a good reality check for how long weight loss takes, and what changes in eating and exercise are required to achieve and maintain goal weight.” Hall and collaborators also published

findings in the *American Journal of Clinical Nutrition* illustrating a method for precisely measuring how much a person’s eating changed when he or she went on a diet.

“This research illustrates how the interdisciplinary skills of NIH scientists, like a physicist doing obesity research, can help lead to innovative ways to test, understand and treat a major public health epidemic,” said NIDDK Director Griffin P. Rodgers, M.D., M.A.C.P. “Advancing research from the laboratory to the bedside enables us to make the discoveries that can better people’s lives.”

The National Institutes of Health Celiac Disease Awareness Campaign provides current, comprehensive, science-based information about the symptoms, diagnosis, and treatment of celiac disease, also known as celiac sprue, nontropical sprue, and gluten-sensitive enteropathy. The Awareness Campaign is an initiative of the National Digestive Diseases Information Clearinghouse, a service of the National Institute of Diabetes and Digestive and Kidney Diseases.

Download this publication and learn more about the Awareness Campaign at [www.celiac.nih.gov](http://www.celiac.nih.gov). ■

## FDA Plans to Issue Final Rule Defining Gluten-free Food

Adapted from FDA news release, and "A Glimpse at 'Gluten-Free' Food Labeling," FDA Consumer Updates

The U.S. Food and Drug Administration (FDA) is a step closer to issuing a standard definition of "gluten-free" for food labels. During a 60-day comment period that ended October 3, 2011, the FDA invited comments from the public and industry on its proposed gluten-free labeling rule published in 2007. The FDA also made available for comment a report on the health effects of gluten in people with celiac disease.



"We must take into account the need to protect individuals with celiac disease from adverse health consequences while ensuring that food manufacturers can meet the needs of consumers by producing a wide variety of gluten-free foods."

**Michael Taylor**  
Deputy Commissioner for Foods, FDA

The FDA has been working to define "gluten-free" to

- eliminate uncertainty about how food producers may label their products
- assure consumers who must avoid gluten that foods labeled gluten-free meet a clear standard established and enforced by FDA

"Before finalizing our gluten-free definition, we want up-to-date input from affected consumers, the food industry, and others to help assure that the label strikes the right balance," said Michael Taylor, deputy commissioner for foods at the FDA. "We must take into account the need to protect individuals with celiac disease from adverse health consequences while ensuring that food manufacturers can meet the needs of consumers by producing a wide variety of gluten-free foods."

### The Proposed Definition

In 2007, FDA proposed to allow manufacturers to label a food "gluten-free" if the food does not contain any of the following:

1. an ingredient that is any type of wheat, rye, barley, or crossbreeds of these grains
2. an ingredient derived from these grains and that has not been processed to remove gluten

3. an ingredient derived from these grains and that has been processed to remove gluten, if it results in the food containing 20 or more parts per million (ppm) gluten
4. 20 ppm or more gluten

The FDA based the criterion for less than 20 ppm of gluten in part on the available methods for gluten detection. The validated methods could not reliably detect the amount of gluten in a food when the level was less than 20 ppm. The threshold of less than 20 ppm also is similar to gluten-free labeling standards used by many other countries.

In the notice reopening the comment period, the FDA stated that it continues to believe the proposed definition of "gluten-free" is the correct one. The notice also described current analytical methods that can reliably and consistently detect gluten at levels of 20 ppm or more in a variety of foods.

The proposed rule conforms to the standard set by the Codex Alimentarius Commission in 2008, which requires that foods labeled as "gluten-free" not contain more than 20 ppm gluten. This

**DEFINING GLUTEN-FREE,**  
continued on page 9

## New NIH Center Will Translate Research Discoveries into New Drugs, Devices

From NIH News

In a move to re-engineer the process of translating scientific discoveries into new drugs, diagnostics, and devices, the National Institutes of Health has established the National Center for Advancing Translational Sciences (NCATS). The action was made possible by Congress' approval of a fiscal year 2012 spending bill and the president's signing of the bill, which includes the establishment of NCATS with a budget of \$575 million.

NCATS will serve as the nation's hub for catalyzing innovations in translational science. Working closely with partners in the regulatory, academic, nonprofit, and private sectors, NCATS will strive to identify and overcome hurdles that slow the development of effective treatments and cures.

"Congressional support for the National Center for Advancing Translational Sciences marks a major milestone in mobilizing the community effort required to revolutionize the science of translation," said NIH Director Francis S. Collins, M.D., Ph.D. "Patients suffering from debilitating and life threatening diseases do not have the luxury to wait the 13 years it currently takes to translate new scientific discoveries into treatments that could save or improve the quality of their lives. The entire community must work together to forge a new paradigm, and NCATS aims to catalyze this effort."

A prime example of the type of innovative projects that will be led by NCATS is the new initiative between NIH, the Defense Advanced Research Projects Agency, and the U.S. Food and Drug Administration to develop cutting-edge chip technology. This new technology will allow researchers to screen for safe and effective drugs far more swiftly and efficiently than current methods. A great deal of time and money can be saved testing drug safety and effectiveness much earlier in the process.

To meet the goals of NCATS, NIH is reorganizing a wide range of preclinical and clinical translational science capabilities within NIH into an integrated scientific enterprise with new leadership and a bold new agenda. While the effort to recruit an NCATS director continues, organizational changes and realignment of resources will move forward under the leadership of Acting Director Thomas R. Insel, M.D., and Acting Deputy Director Kathy Hudson, Ph.D. Dr. Insel is the director of the National Institutes of Mental Health and Dr. Hudson is the deputy director for science, outreach, and policy at the National Institutes of Health.

The following programs will comprise NCATS:

- Bridging Interventional Development Gaps, which makes available critical resources needed for the development of new therapeutic agents
- Clinical and Translational Science Awards, which fund a national consortium of medical research institutions working together to improve the way clinical and translational research is conducted nationwide
- Cures Acceleration Network, which enables NCATS to fund research in new and innovative ways

**NEW NIH CENTER,**  
continued on page 9

**NEW NIH CENTER**, continued from page 8

- FDA-NIH Regulatory Science, which is an interagency partnership that aims to accelerate the development and use of better tools, standards and approaches for developing and evaluating diagnostic and therapeutic products
- Office of Rare Diseases Research, which coordinates and supports rare diseases research
- Components of the Molecular Libraries, which is an initiative that provides researchers with access to the large-scale screening capacity necessary to identify compounds that can be used as chemical probes to validate new therapeutic targets
- Therapeutics for Rare and Neglected Diseases, which is a program to encourage and speed the development of new drugs for rare and neglected diseases

The budget for NCATS is primarily a reallocation of funds from programs previously located in the NIH Office of the Director, National Human Genome Research Institute, and National Center for Research Resources. NIH is committed to both basic and applied research

and has maintained a relatively stable ratio of funding across these two areas of focus. The funding ratio will not be disturbed by the establishment of this new center.

The formation of NCATS has been a methodical process highlighted by the recommendation of the NIH Scientific Management Review Board in December 2010 to create a new center dedicated to advancing translational science. This recommendation was followed by a year of intensive feedback and expert insight from all sectors of translational science through advisory meetings and extensive public consultation.

“I am deeply grateful for the expertise and insight provided by the many researchers, industry executives, patients, voluntary organizations, and NIH staff that helped NIH evaluate NCATS’ purpose and crystallize its vision,” said Dr. Collins.

To learn more about the impetus and development of NCATS, go to:

- NCATS web page: [www.ncats.nih.gov](http://www.ncats.nih.gov)
- NCATS on the Feedback NIH website: <http://feedback.nih.gov/index.php/category/ncats> ■

**DEFINING GLUTEN-FREE**, continued from page 7

standard has been adopted in regulations by the 27 countries composing the Commission of European Communities.

**The “Gluten Report”**

The report made available for comment, *Health Hazard Assessment for Gluten Exposure in Individuals with Celiac Disease: Determination of Tolerable Daily Intake Levels and Levels of Concern for Gluten*, also known as the “Gluten Report,” discusses the FDA’s gluten safety assessment. This report, issued in May 2011, is available in PDF format on the FDA website. To access the report and other information about gluten-free labeling, visit the FDA’s gluten-free information

page at [www.fda.gov/Food/LabelingNutrition/FoodLabelingGuidanceRegulatoryInformation/Topic-SpecificLabelingInformation/default.htm#gluten](http://www.fda.gov/Food/LabelingNutrition/FoodLabelingGuidanceRegulatoryInformation/Topic-SpecificLabelingInformation/default.htm#gluten).

The National Institutes of Health Celiac Disease Awareness Campaign provides current, comprehensive, science-based information about the symptoms, diagnosis, and treatment of celiac disease, also known as celiac sprue, nontropical sprue, and gluten-sensitive enteropathy. The Awareness Campaign is an initiative of the National Digestive Diseases Information Clearinghouse, a service of the National Institute of Diabetes and Digestive and Kidney Diseases.

Download this publication and learn more about the Awareness Campaign at [www.celiac.nih.gov](http://www.celiac.nih.gov). ■

## Brown Medicine Magazine Profiles NIDDK Director Griffin P. Rodgers

Excerpted from *Brown Medicine*  
By Sarah Baldwin-Beneich and David Peterson



“I saw that diabetes, obesity, and kidney disease hit African Americans harder than others. This was my first exposure to the effects and interaction of genetics and the environment.”

**Griffin P. Rodgers, M.D., M.A.C.P.**  
NIDDK Director

*Brown Medicine* magazine featured Griffin P. Rodgers, M.D., M.A.C.P., director of the National Institute of Diabetes and Digestive and Kidney Diseases, on the cover of its Fall 2011 issue. Read an excerpt from the story, “The Ambassador,” below:

A hematologist by training, Rodgers first became interested in medicine growing up in the '60s and '70s in New Orleans. He excelled in math and science early on. His father taught physical education and science. But it was his mother, a public health nurse, who first exposed him to the practice and potential of medicine.

“Many of my mother’s patients weren’t able to get to the clinic during the workweek. She’d take it upon herself to visit them at their homes during the weekend. We went to some rough neighborhoods,” Rodgers recalls, laughing softly, “and she took me along as protection.” He watched as she applied her nursing training and practical approaches to solve medical problems.

“I learned quite a bit this way. Her knowledge, compassion, and ability to get along with people went a long way in getting them to follow instructions, do follow-up.”

Making the rounds with his mother was formative in another sense, as well: “I saw that diabetes, obesity, and kidney disease hit African Americans harder than others. This was my first exposure to the effects and interaction of genetics and the environment.”

For more information or to read the full article, visit the *Brown Medicine* magazine website at [www.brownmedicinemagazine.org/index.php](http://www.brownmedicinemagazine.org/index.php). ■

## NIDDK Advisory Council Member Receives 2011 Physician Clinician in Diabetes Award

*Adapted from the University of Washington Office of News and Information*

**D**r. Jerry P. Palmer, professor of medicine, has received the American Diabetes Association's prestigious 2011 Outstanding Physician Clinician in Diabetes Award. The award was presented at the Association's 71st Scientific Sessions in San Diego, Calif.



Dr. Jerry P. Palmer

The Outstanding Physician Clinician in Diabetes Award is given to an individual who has made major contributions to diabetes care as a widely respected clinician and educator.

Palmer is a member of the Advisory Council of the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), and is the director of the UW Diabetes Endocrinology Research Center and chief of the Division of Endocrinology, Metabolism, and Nutrition, Puget Sound Veterans Affairs Health Care System. Palmer has a distinguished career as clinician, educator, mentor, and scientist.

Known internationally for his discovery of insulin autoantibodies, Palmer also is highly regarded locally as a clinician, in part because he implements research findings to help patients.

Palmer was a principal investigator of the Seattle Diabetes Control and Complications Trial (DCCT) site. Realizing the importance of the multidisciplinary approach, he created the UW

Diabetes Care Center. This clinic has an international reputation as a premier academic diabetes center. Palmer is also a clinician and teacher in the Puget Sound Veterans Affairs Health Care System's Endocrine Clinic, a popular training site for UW students, residents and fellows.

Palmer is a past recipient of the Robert H. Williams Rachmiel Levine Award and has been repeatedly named among the Best Doctors in America. He is a past president of the Immunology of Diabetes Society.

He has served on the board of the American Diabetes Association's Washington affiliate (1975-1983), and on its national board (1994-1997). He was on the National Institutes of Health steering committee for the Diabetes Prevention Trial-Type 1 (DPT-1) and now for Type 1 Diabetes TrialNet, and is on the international executive committee for TRIGR (Trial to Reduce Insulin Dependent Diabetes in the Genetically at Risk). ■

## NIH Grantees Win 2011 Nobel Prize in Physiology or Medicine

From NIH News

The 2011 Nobel Prize in Physiology or Medicine has been awarded to National Institutes of Health grantees Bruce A. Beutler, M.D., of The Scripps Research Institute, La Jolla, Calif., and Jules A. Hoffmann, Ph.D., for their discoveries concerning the activation of innate immunity; and the late Ralph M. Steinman, M.D., of Rockefeller University, New York City, for his discovery of the dendritic cell and its role in adaptive immunity.

“The work of these three NIH-supported scientists has provided fundamental understanding of the body’s immune system, and has been pivotal to the development of new vaccines against infectious diseases and treatments for cancer,” said NIH director Francis S. Collins, M.D., Ph.D.

The NIH began supporting the work of Dr. Beutler in 1984 and has provided almost \$58 million in support. Dr. Beutler’s work has been supported by the National Institute of Allergy and Infectious Diseases (NIAID), the National Institute of Diabetes and Digestive and Kidney Diseases, the National Institute of General Medical Sciences, and the National Cancer Institute. Dr. Hoffmann has received almost \$7 million in support from NIAID since 1998. NIAID began supporting the work of Dr. Steinman in 1976 and provided more than \$49 million in support.

“NIAID has had the honor of supporting all three awardees,” says NIAID Director Anthony S. Fauci, M.D. “Their elegant work has been — and will continue to be — extraordinary in

its impact. It is rare that an investigator makes a discovery so important that it influences virtually every aspect of a scientific discipline. Their discoveries have opened up the possibility of harnessing the body’s own cells and immune processes to prevent infectious diseases, autoimmune disorders, allergic diseases, cancer, and rejection of organ transplants.”

The Office of the Director, the central office at NIH, is responsible for setting policy for NIH, which includes 27 Institutes and Centers. This involves planning, managing, and coordinating the programs and activities of all NIH components. The Office of the Director also includes program offices which are responsible for stimulating specific areas of research throughout NIH.

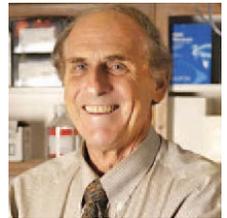
Additional information is available at [www.nih.gov/icd/od](http://www.nih.gov/icd/od). ■



Bruce A. Beutler, M.D.



Jules A. Hoffmann, Ph.D.



Ralph M. Steinman, M.D.

“Their discoveries have opened up the possibility of harnessing the body’s own cells and immune processes to prevent infectious diseases, autoimmune disorders, allergic diseases, cancer, and rejection of organ transplants.”

**Anthony S. Fauci, M.D.**  
NIAID Director

## NIH Clinical Center Receives 2011 Lasker~Bloomberg Public Service Award

Adapted from NIH News

The NIH Clinical Center, the clinical research hospital at the National Institutes of Health in Bethesda, Md., is the 2011 recipient of the Lasker~Bloomberg Public Service Award. The award was presented by the Albert and Mary Lasker Foundation, which has recognized outstanding advances in medical research each year since 1945. The award honors the Clinical Center for serving as a model institution that has transformed scientific advances into innovative therapies and provided high-quality care to patients.



John I. Gallin, M.D., director of the NIH Clinical Center (second from left), accepts the 2011 Lasker~Bloomberg award on behalf of the Clinical Center and the NIH.

“The NIH Clinical Center has been pivotal in advancing clinical studies that are at the forefront of solving the nation’s most pressing public health issues.”

**Griffin P. Rodgers, M.D., M.A.C.P.**

NIDDK Director

The award recognizes the Clinical Center’s rich history of medical discovery through clinical research since it opened in 1953. Over the decades, nearly half a million volunteers have participated in clinical research at the Clinical Center. Its mission has remained providing exceptional clinical care for research volunteers, an environment for innovative bench-to-bedside clinical research, and training for clinical researchers.

“The Clinical Center, the world’s largest clinical research hospital, exists to help scientists who are clinicians rapidly translate promising discoveries in the laboratory into new and better ways to treat and prevent disease,” said NIH Director Francis S. Collins, M.D., Ph.D. “The Clinical Center’s 58-year research portfolio has resulted in remarkable medical advances.”

Those medical milestones include development of chemotherapy for cancer; the first use of an immunotoxin to treat a malignancy (hairy cell leukemia); identification of the genes that cause kidney cancer, leading to the development of six new, targeted treatments for advanced kidney cancer; the demonstration that lithium helps depression; the first gene therapy; the first treatment of AIDS (with AZT); and the

development of tests to detect AIDS/HIV and hepatitis viruses in blood, which led to a safer blood supply.

“By enabling some of the world’s top medical researchers to collaborate in innovative, interdisciplinary ways, the NIH Clinical Center has been pivotal in advancing clinical studies that are at the forefront of solving the nation’s most pressing public health issues,” said Griffin P. Rodgers, M.D., M.A.C.P., director of the National Institute of Diabetes and Digestive and Kidney Diseases.

“The Clinical Center’s work has always depended on patients and healthy individuals from around the world who volunteer for clinical research here,” said John I. Gallin, M.D., director of the NIH Clinical Center. “Our patients include those with rare diseases, common disorders, and undiagnosed conditions. There are about 1,500 clinical research studies under way today and the patients and healthy volunteers who participate in them are true partners in research.”

**NIH CENTER RECEIVES AWARD,**

continued on page 15

## Former NIH Director Healy Dies at 67

From NIH Record

**D**r. Bernadine Healy, who became the 13th NIH director in April 1991 and was the first woman to head the agency, died Aug. 6 of a brain tumor at age 67. She had battled brain cancer for 13 years.



Bernadine P. Healy, M.D.

**"H**ow wonderful to be in a career that in almost any dimension of it—whether you're the doctor at the bedside, or the scientist in the laboratory ... that you are doing something that is pure in its fundamental purpose, which is helping another human being."

**Bernadine P. Healy, M.D.**  
Former NIH Director

Healy served as NIH director for 2 years, during which she launched the \$625 million Women's Health Initiative and established the Shannon Awards, which fostered innovative approaches in research. She also established a policy that all NIH-funded clinical trials on conditions that affect both genders must include both men and women.

"I am deeply saddened by the death of former NIH Director Bernadine P. Healy, and will greatly miss her courageous leadership on behalf of biomedical research," said NIH director Dr. Francis Collins. "Dr. Healy will be long remembered for her visionary efforts that transformed the landscape of women's health research."

Healy came to NIH from the Cleveland Clinic Foundation, where she had been a research director and cardiologist for 6 years. She had also been deputy director of the Office of Science and Technology Policy at the White House and a professor of medicine at Johns Hopkins University.

Healy was president of the American Heart Association in 1988-1989 and was a member of the Institute of Medicine. A native of Queens, N.Y., she had earned her medical degree at Harvard Medical School.

After leaving NIH, she was dean of Ohio State University Medical School (1995-1999) and president and chief executive officer of the American Red Cross (1999-2001). She was also a columnist for *U.S. News & World Report*. In 1994, she ran unsuccessfully for the U.S. Senate from Ohio.

Collins, whom Healy recruited from the University of Michigan to head the nascent Human Genome Project at NIH, said, "I will be forever grateful to Dr. Healy for her vigorous support of the public effort to sequence the human genome and her keen insights into the potential of genomic research for revolutionizing medicine."

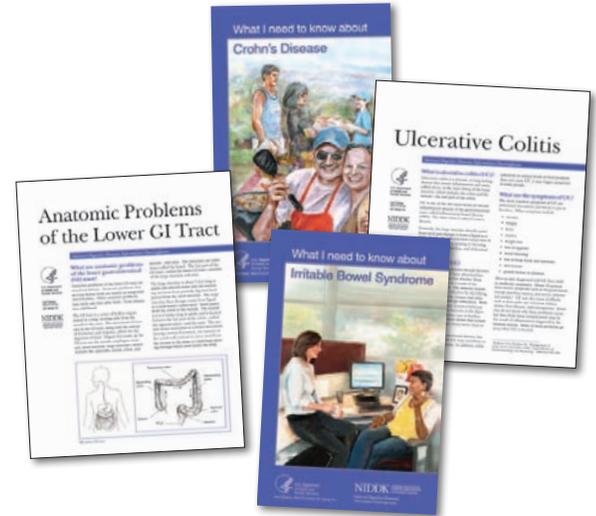
In remarks she made for an NIH exhibit on pioneering women doctors, Healy said, "All of us, I believe, in our hearts are humanitarian. And how wonderful to be in a career that in almost any dimension of it—whether you're the doctor at the bedside, or the scientist in the laboratory, or the public health doc tracking down the latest epidemic—that you are doing something that is pure in its fundamental purpose, which is helping another human being."

Healy is survived by her husband, Dr. Floyd D. Loop, and two daughters. ■

## Updated Publications

The National Digestive Diseases Information Clearinghouse has updated the following publications:

- *Anatomic Problems of the Lower GI Tract*
- *Crohn's Disease*
- *ERCP (Endoscopic Retrograde Cholangiopancreatography)*
- *Proctitis*
- *Ulcerative Colitis*
- *What I need to know about Crohn's Disease*
- *What I need to know about Gas*
- *What I need to know about Irritable Bowel Syndrome*



These publications are available at [www.digestive.niddk.nih.gov](http://www.digestive.niddk.nih.gov). ■

## Upcoming Meetings, Workshops, and Conferences

The National Institute of Diabetes and Digestive and Kidney Diseases Information Clearinghouses will exhibit at the following upcoming events:

### Society of Gastroenterology Nurses and Associates 39th Annual Course

May 18–23 in Phoenix.

For more information, visit [www.sgna.org/Events/2012AnnualCourse.aspx](http://www.sgna.org/Events/2012AnnualCourse.aspx).

### Digestive Disease Week 2012

May 19–22 in San Diego.

For more information, visit [www.ddw.org](http://www.ddw.org). ■

### NIH CENTER RECEIVES AWARD, continued from page 13

Advancements through clinical research also depend on having a cadre of investigators trained to do it, Gallin added. “Students in the health sciences and clinicians come here to learn how to conduct clinical research by working closely with NIH investigators. Since 1995, more than 22,000 students around the world have participated in the Clinical Center’s clinical research training curriculum offered through distance-learning programs.”

The original hospital, the Warren Grant Magnuson Clinical Center, opened in 1953. A new research hospital, the 240-bed Mark O. Hatfield

Clinical Research Center, opened in 2004. Most of NIH’s 27 institutes and centers conduct clinical research at the Clinical Center through their programs on the NIH campus in Bethesda, Md. NIH plans to open the facility for use by external researchers, based on the 2010 recommendations from the Scientific Management Review Board, established under the NIH Reform Act of 2006, which will allow the Clinical Center to facilitate clinical research on a broader scale.

For more information, visit the NIH Clinical Center at <http://clinicalcenter.nih.gov>. ■