Improving the health of future generations

PENNINGTON BIOMEDICAL RESEARCH FOUNDATION ANNOUNCES

2007 SOARING TO NEW HEIGHTS FUNDRAISING EVENT

The Pennington Biomedical Research Foundation (PBRF) announced recently that Amedisys, Inc., a Baton Rouge-based home health company, will be the Title Sponsor of the non-profit organization’s annual fundraising event, Soaring to New Heights. This year’s event will be called the 2007 Amedisys Soaring to New Heights.

The proceeds from the Saturday, August 11, event will benefit the Pennington Biomedical Research Center and Foundation. “Last year’s Soaring to New Heights raised more than $150,000 in support of the health and preventive medicine research underway at the Center,” said PBRF President and CEO Jennifer Winstead.

“Amedisys is dedicated to helping our patients recover and stay healthy so that they can remain at home. We share many of the same goals as the Pennington Biomedical Research Center, especially those placed on preventive medicine. Staying healthy and enhancing one’s quality of life are goals shared by both organizations,” said Founder and CEO William Borne. “In addition, we salute all of the firms and individuals who are stepping forward to make the work of the Pennington Biomedical Research Center part of their outreach programs. We hope our leadership will encourage other companies and individuals to recognize the groundbreaking work of the Pennington Biomedical Research Center.”

Other major sponsors are Presenting sponsor: Irene W. and C. B. Pennington Family Foundation; Soaring for Health sponsor: The Shaw Group, Inc.; Soaring for Wellness sponsors: Analytic Stress, Denton James, Equitas, Long Law Firm, and an anonymous donor; Soaring for Fitness Sponsors: Adams and Reese LLP, Arthur J. Gallagher Risk Management Services, Inc., and CEO William Borne. “In addition, we salute all of the firms and individuals who are stepping forward to make the work of the Pennington Biomedical Research Center part of their outreach programs. We hope our leadership will encourage other companies and individuals to recognize the groundbreaking work of the Pennington Biomedical Research Center.”

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(Ticket information on page 3).

Saturday, August 11, 2007
6 p.m. to 10 p.m.
Balloon Glow 8:30 p.m.
Fireworks 9 p.m.
lawn of the C.B. Pennington, Jr. Building

PBRC’s TAKE 5 - Diabetes Education for Life

Seeking to meet a real need in the community, two PBRC dietitians and nurses became registered diabetes educators to improve the lives of people with diabetes. Susan Thomas, CDE, and Patricia Pinsonat, CDE, helped to design Take 5 - Diabetes Education for Life. According to Thomas and Pinsonat, “Diabetes presents high health risks and challenges, but those with the disease can learn to manage it for a healthier, happier life. Our goal is to educate people with diabetes on the essential self-management skills and lifestyle modifications needed to achieve blood sugar control that will lead to a better life.”

Dr. William Cefalu, diabetes expert and PBRC researcher overseeing the class, said, “Take 5 is a lively, easily accessible series of five life lessons for people with diabetes. These lessons, offered by experts at the Pennington Biomedical Research Center, are the keys to control for participants who want to manage their disease and enjoy a long, healthy life.” Local residents with diabetes or family members may enroll at a nominal charge.

Thomas said that often when a person is diagnosed with diabetes, the treating physician will prescribe diabetes education. However, one may have to wait weeks to get an appointment with an educator, which is often discouraging for those in need of immediate education and support. Take 5, coordinated by the Division of Education at PBRC, is an affordable new service to those with diabetes desiring self-management education backed by the latest research.

For more information call 763-0918.
We have also gained a substantial increase in the annual legislative appropriation to the Pennington Biomedical Research Center. This increase will allow us to recruit new scientists so that we can continue to improve the depth of our science and make us even more competitive at the national and international levels. We are pleased to report that the legislature has approved a 29% increase in our yearly appropriation following the recommendation of Commissioner LeBlanc and Governor Blanco. It is fair to say that our budgetary increase requests have received support on both sides of the aisle in the current legislature. Embedded in this budget increase are $3 million for new and expanded research programs on adult stem cells, the prevention of diabetes, and improved clinical and translational research infrastructure that should benefit the whole State of Louisiana.

During the first half of our 5-year plan, we made significant progress on many fronts. With this augmented support from the State Legislature, we should be in a position to accomplish by 2010 almost all the goals in our ambitious Strategic Plan, Vision 2010. If you want to know more about our priorities, please read “A progress report to the community” online at www.pbrc.edu, or call our Director of Communications, Glen Duncan (225-763-2599).

I look forward to reporting more in our efforts to remain the premier research center in nutrition and to position the Pennington Biomedical Research Center as a leading institution in the development of innovative and effective formulas to prevent obesity, diabetes, cardiovascular disease and cancer.

Claude Bouchard, Ph.D.
PBRC Executive Director,
George A. Bray, Jr. Super Chair in Nutrition
The Soaring to New Heights fundraiser is a special ticketed event held annually during the Pennington Balloon Championships, a hot air balloon pilot competition event managed by the Louisiana Ballooning Foundation on the grounds of the Pennington Biomedical Research Center. The 2007 Amedisys Soaring to New Heights fundraiser is scheduled for Saturday evening August 11, on the campus of PBRC in Baton Rouge.

Tickets for the fundraiser include complimentary cocktails and a catered buffet as well as special parking passes, entrance passes into the reserved Soaring tents, prime viewing location for the balloon glow, fireworks, and music.

"Now in its 4th year, this unique family event has grown since the initial event back in 2004. "We look forward to seeing all our community neighbors and supporters during this spectacular evening of fun, -- all to benefit the promise and hope our PBRC researchers and scientists offer through their medical research," said Winstead.

Individual tickets and tables for the 2007 Amedisys Soaring to New Heights are now available for purchase by contacting PBRF at 763-2511 or at www.pbrf.org.

2007 Soaring Committee

Sylvia S. Duke                  Buddy Tucker
Co-Chair                       Co-Chair

Annette Barton, Melanie Boyce, Laurinda Calongne, Natalie Church, Maxine Cormier, Paula de la Bretonne, Anne Duke, Pam Fisher, Blaine Grimes, Kathy Kirby, Mary Jo Mayfield, Sancy McCool, Page Silvia, and Leslie Son
Senior researcher Les Kozak, Ph.D., would like us to consider two very new ideas for a moment: our brain does not always send orders to other organs in the body, sometimes it takes orders; and fat is a vital organ. Those ideas are contrary to what we learned in high school biology or even today, but they may be keys to how we become obese as adults.

Before we are born and immediately afterward, vital organs – our liver, pancreas, and even fat tissue – are making and secreting proteins that act as messengers to the brain. In fact, according to Kozak, the messages are so profound they shape the brain in the first days after birth, hard wiring life-long patterns.

“We usually think the brain is in control of our development,” Kozak said, “but in those early days after birth, our brain is still developing. Proteins secreted into the blood stream from fat tissue may be imprinting how the brain will control our nutrition and energy balance.” Which means, for example, how easily we may gain weight during our lifetime.

Kozak, holder of the Claude B. Pennington, Jr. Chair, wants to learn if the nutrition of the mother and newborn affects that brain imprinting. He believes mice (and ultimately humans) may be programmed for a life of obesity by a mother’s malnourishment. He has created a complex set of experiments to identify proteins secreted during those final days of brain formation. By comparing offspring from optimally nourished and malnourished mothers and optimally nourished newborns with malnourished, he plans to find the secreted proteins that predict adult obesity.

“If you can use just a few drops of blood to determine whether a new-born is destined to become obese,” Kozak said, “you could immediately begin instilling and learning life-long, healthy behaviors to offset it.”

Symposium on Epigenetics Held

The Pennington Biomedical Research Center’s Division of Education hosted its 2007 John S. McIlhenny Scientific Symposium this spring on the PBRC and LSU System campuses to increase knowledge and approaches for discoveries in nutrition and disease prevention in the area of epigenetics.

More than 60 scientists traveled from throughout the world to PBRC to collaborate on the topic of “Epigenetic Mechanisms in Obesity: Research & Public Health Implications” and to review key mechanisms leading to developmental and nutritional programming specifically in obesity and related chronic diseases, such as type 2 diabetes and hypertension.

A key goal was to review and discuss the likelihood that epigenetic-based changes contribute to the early establishment of a predisposition to later in life disease.

Serving as co-chairmen of the event were PBRC faculty member Kenneth Eilertsen, Ph.D., Nuclear Reprogramming and Epigenetics; David Barker, Ph.D., M.D., Clinical Epidemiology, Oregon Health and Science University; and Rob Waterland, Ph.D., departments of Pediatrics and Molecular and Human Genetics Baylor College of Medicine, Children’s Nutrition Research Center.

This symposium focused on scientific knowledge of the role of environmental factors with emphasis on nutrition in utero and post natal and its impact on chronic diseases. Human epidemiological studies and dietary interventions in animal models have suggested that maternal nutritional imbalance and metabolic disturbances during critical time periods of development may have long term health consequences on offspring. There is growing acceptance of the notion that epigenetic changes associated with chromatin structure and regulation of gene expression provide a basis to contribute to developmental programming and establishment of predispositions to later in life chronic disease.

The Scientific Symposia Series was established in 2002 to attract world-renowned scientists to the Pennington Biomedical Research Center and to allow them the opportunity to interact and synthesize knowledge in selected areas of nutrition and preventive medicine research.

A gift from the Coypu Foundation to honor its founder, John S. McIlhenny, an ardent early supporter of the PBRC, was made in 2007 to underwrite the series. The symposium was also made possible with funding from Jenny Craig, Takeda, Amylin/Lilly, Kraft Global Nutrition, Ajinomoto.
The Pennington Biomedical Research Foundation welcomed 100 supporters to the 2007 Scientific Dinner Series held recently in the lower reception area, overlooking the lake on the Pennington Biomedical Research Center campus.

The featured speaker was noted Canadian research scientist, G. Harvey Anderson, Ph.D., who spoke on “Obesity—Is there a food solution?” Welcoming Dr. Anderson to the event, was Claude Bouchard, Executive Director of PBRC, and PBRC faculty host, Dr. Roy Martin.

During the dinner, PBRF President/CEO Jennifer Winstead unveiled a framed canvas portrait of the late L. Heidel Brown, which is on display at PBRC to honor a recent one-million dollar donation from his wife, Mrs. Imogene N. Brown, to support the work of Pennington.”

The 2007 Scientific Dinner Series is underwritten by corporate sponsor, Capital One. Representing Capital One at the event was Senior Vice President for Commercial Banking, Janet Olson.

Dr. Anderson, professor of Nutritional Sciences, Physiology and Medical Sciences at the University of Toronto, also serves on the Pennington Biomedical Research Center’s External Advisory Board. At the evening event, he presented data on the escalating obesity rates, now the second leading cause of preventable death. Obesity leads to cardiovascular disease, type 2 Diabetes, cancer and osteoarthritis, and other health conditions. He noted the increasing need to find meaningful solutions through research studies, like those underway at PBRC.

Anderson commended the donors for their “vision” to support the work of the Pennington Biomedical Research Center. He stressed the need to focus on obesity in children as an immediate and growing need in the United States.

Anderson is a proponent of nutrition education and food safety and has trained 80 postdoctoral fellows and has published numerous studies on appetite control and the prevention of obesity. His work also includes perinatal and infant nutrition. Serving as PBRC faculty event host was Roy Martin, Ph.D., professor with the Neurobehavioral Laboratory.

Featured as special guests were viola classical musicians Jennifer Cassin of the Baton Rouge Symphony Orchestra, and PBRC Professor Abba Kastin, M.D., United Companies/Harris J. Chustz Chair.

In Memory of Samuel MacDonald McCann

Pennington Biomedical Research Center’s first and only Professor Emeritus, Samuel McCann, M.D., passed away on March 16. Samuel MacDonald McCann was born in Houston, Texas on September 8, 1925, the only child of parents dedicated to university life. He received his basic education at Rice University, Houston. However, his interest in science developed during high school at Culver Military Academy. He obtained his M.D. at the Medical School of the University of Pennsylvania in 1948.

Dr. McCann developed a long medical career and research career in neuroendocrinology, leading to membership in the National Academy of Sciences and the American Academy of Arts and Sciences, among many other honors.

He had a special gift regarding the stimulation and training of young investigators. Many of those he trained greatly progressed in their countries of origin. Dr. McCann was 82 years old.

In Honor of Polly Hernandez
Gift given by Polly and John H. Hernandez

In Memory of Jennifer Winstead and Melissa Bell
Gift given by Mrs. Jane T. Boyce

PB RF TR IBU T ES
January 1, 2007 through June 18, 2007

In Memory of Jean Brantley
Gifts given by:
Dr. Catherine Champagne
Paula and Jack de la Bretonne

In Honor of Jane T. Boyce
Gift given by Melanie and John C. Boyce & Family

In Memory of Bob Cole
Gift given by Carolyn and Bob Gates

In Honor of John H. Hernandez
Gifts given by:
The A. Arthur Bondy Family
Mr. and Mrs. Charles A. Bondy
Mrs. Jane T. Boyce
Jennifer and Chuck Winstead

In Honor of Polly Hernandez
Gift given by Mrs. Jane T. Boyce

In Memory of Carlos G. Spaht
Gift given by Polly and John H. Hernandez

In Honor of Jennifer Winstead and Melissa Bell
Gift given by Mrs. Jane T. Boyce
**EAT THE VEGGIES, SKIP THE AMINO ACID**

Chances are if you hear of a new drug, food supplement, device or other medical treatment for diabetes, obesity, overeating or for weight loss, Dr. Frank Greenway of the Pennington Biomedical Research Center can speak in detail about it, has first-hand knowledge of it, or has even tested it. Dr. Greenway is the long-time director of the Center’s outpatient clinical trials unit – the part of the Center where more than 26,000 Baton Rouge residents have entered to take part in a huge array of fascinating trials of new drugs, diets, exercises or devices.

The goal of the clinical trials is simple: improve life, and Dr. Greenway is not only directly in charge of the health and well-being of the Center’s hundreds of participants here at any one time, but also conducts his own research.

Dr. Greenway recently won a patent for a patient reminder device called The Waist Chain. It constantly reminds you of a growing waistline, and therefore helps keep users on track and motivated in their personal weight loss or wait maintenance efforts.

Now, in an unusual turn, Dr. Greenway is not testing what happens when he administers a new drug or food supplement. He’s trying to learn what happens when he eliminates a compound entirely from your diet. The naturally occurring amino acid, called methionine [pronounced multiTHIGHuhneen], is found in most of the proteins we eat.

Cancer specialists discovered that some cancers require methionine to grow and tested what happened when methionine was removed from cancer patients’ diets. Weight loss was a side effect. Rats in the laboratory fed a diet without methionine increased their metabolic rate, lost weight, lived longer and ate more food.

Now, Dr. Greenway would like to see if the same thing happens to patients struggling to control their weight. If removing methionine from the diet of humans increases metabolism, it may result in weight loss. Participants volunteering for this trial will be able to eat all the fruits and vegetables they want while consuming a special protein drink. That drink contains all the amino acids necessary for health, except methionine. Greenway is optimistic and is currently enrolling volunteers to learn if this is an effective way to lose weight. (See clinical trials on right).

**CALERIE II (2 Year Study)**

**HOW DOES DIET AFFECT HEALTHY AGING?**

A research study testing the effects of diet on aging. Some volunteers will eat breakfast and dinner meals at the Pennington Center with lunches and weekend meals packed to go, for a one-month period. This will be followed by 2 years of a prescribed diet at home and several clinic visits. Other volunteers will simply follow their regular eating patterns for the entire two years.

Please visit the CALERIE website at http://calerie.pbrc.edu.

**Study Qualifications:**
- Normal healthy males and females
- Ages 25-45
- Normal weight (BMI greater than or equal to 22 and less than 28)
- Non-Smoker
- Non-diabetic
- On no medications, (birth control accepted)

Participants will be compensated at the end of the study.

**MODEL**

(16 Month Diabetes Weight Loss Study)

**Study Design:**
Participants will be on a very low calorie diet for 10 weeks, or until they lose 7% body weight

_Then_
Placed on Byetta or placebo (injected) for 12 months to determine if weight remains stable
- Total of 26 visits

**Study Qualifications:**
- Age: 30-70
- Have type 2 diabetes
- Overweight (BMI: 27-45)
- Not on insulin
- Not taking Actos, Avandia or Byetta
- Some medications are allowed (blood pressure, thyroid)

Participants will be compensated $625 at the end of the study.

**METHIONINE**

(16 Week Weight Loss Study)

A 16-week weight loss study to determine if limiting dietary methionine, one of the 10 essential amino acids that make up proteins, causes weight loss and/or improves glucose metabolism.

Eligible volunteers will take either methionine or placebo which is administered in capsule form. All volunteers will be on a diet consisting of a “protein shake”. Volunteers will be allowed to eat large amounts of fruits and vegetables and some grains, but protein-containing foods such as meat, fish, chicken, eggs, cheese, and milk will be greatly restricted.

**Study Design:**
- 2 screening visits (approximately 2 hours each)
- 9 other clinic visits (2 of these visits are overnight stays on the PBRC in-patient unit)

**Study Qualifications:**
- Age: 21 – 60
- Overweight with metabolic syndrome
- No chronic disease
- Not taking medications (exceptions are birth control, hormones and thyroid medications)
- Females cannot be pregnant, breastfeeding or planning to become pregnant

Participants will be compensated $1,500 at the end of the study.

If you are interested in participating in these or other research studies, call the Recruiting Department at (225) 763-3000 or visit www.pbrc.edu or e-mail clinicaltrials@pbrc.edu.
Making “Time”

A recent issue of Time Magazine led with a cover story “The Science of Appetite,” an in-depth look at the current science of why we eat, and why we often eat too much. Center researchers, Dr. Hans Berthoud, Dr. Christopher Morrison and Dr. Marlene Most, were cited in the story. Of the nine cited sources in the article, three were from PBRC. Time dispatched a reporter and photographer to spend a day at PBRC last month to research the article. You can read the Time Magazine article at www.pbrc.edu.

Familiar face on TV in Romania

Dr. Magdalena Pasarica’s ground-breaking work on how human adenovirus attacks stem cells in fat was broadcast as well, but you have to speak Romanian to understand it! Dr. Pasarica completed her work as part of her dissertation under the direction of Dr. Nihkil Dhurandhar, also of PBRC, the first researcher to pose the theory that a human virus may cause obesity. Dr. Pasarica was interviewed for a detailed story of her work broadcast on a medical television show in her home country of Romania.

Dr. Church Featured in JAMA

Dr. Tim Church’s recent publication in The Journal of the American Medical Association (JAMA) on the benefits of mild exercise was picked up by a myriad of news sources worldwide. To illustrate the story, JAMA sent a video crew to PBRC and released the video to the media. TV viewers in New York, North Carolina and other states saw Dr. Church, Liz Tucker, Lura Reed and Linda Guy in a medical feature story on the research. The news is that even 15 minutes a day of mild exercise can have significant health benefits for post-menopausal women.

NEW FACULTY

Michael Salbaum, Ph.D., Associate Professor Research. Dr. Salbaum will develop a research program in the regulation of gene expression with an emphasis on the role of nutrients. He received his undergraduate degree from the University of Regensburg in Germany, pursued graduate work at the University of Cologne and the University of Heidelberg and received his Ph.D. from the University of Heidelberg in Germany. He was a postdoctoral fellow from 1990-1994 at Yale University in the Department of Biology with Professor Frank Ruddle. Thereafter, he went to the Neurosciences Institute in San Diego where he was from 1994-1999. In 2000 he joined the Department of Genetics, Cell Biology and Anatomy at the University of Nebraska Medical Center in Omaha.

Claudia Kruger, Ph.D., Instructor. Dr. Kruger’s research focus is in the area of developmental biology. She received a Doctorate from the Martin-Luther University in Halle-Wittenberg, Germany and did her postdoctoral training at the Institute of Plant Genetics and Crop Plant Research in Gatersleben, Germany. Since 2003 Dr. Kruger has been a postdoctoral research associate with Dr. Claudia Kappen at the University of Nebraska Medical Center, Department of Genetics, Cell Biology and Anatomy. She joins Dr. Kappen here at PBRC.

Leanne Redman, Ph.D., Instructor. Dr. Redman was most recently a postdoctoral researcher at the Center. She will continue working with Dr. Eric Ravussin, as well as develop her own research program in reproductive biology and other women’s health issues. Dr. Redman received her education in Australia, specifically getting her undergraduate degree in 1999 from Southern Cross University and her Ph.D. in 2004 from the University of Adelaide. She worked as a post doctoral research fellow at Ohio University in Athens, OH from 2003-2004, and since 2005 she has been working in the laboratory of Dr. Eric Ravussin as the NH&MRC Neil Hamilton-Fairley Clinical Post-doctoral Fellow primarily, funded by the University of Adelaide.

Gregory Sutton, Ph.D., Instructor. Dr. Sutton has been at PBRC since 2004 working as a post doctoral researcher. He will continue working with Dr. Andrew Butler in the Neuropeptides Laboratory and develop his own research program to examine neuroendocrine regulation of energy homeostasis with reference to the metabolic syndrome.

Dr. Sutton received a Bachelor of Science in Biochemistry from LSU in 1993 and a Ph.D. in Neuropharmacology from the LSU Health Science Center in Shreveport in 2002.
To make a donation in support of the
2007 Annual Giving Campaign,
Please mail to:
Pennington Biomedical Research Foundation
6400 Perkins Rd., Baton Rouge, LA 70808
or visit www.pbrf.org

SUPPORT THE
PENNINGTON BIOMEDICAL RESEARCH FOUNDATION
Please consider a donation to help support the Center’s work.

YOUR DONATIONS…
• Impact millions of lives daily through investments in the Center’s programs and initiatives in diabetes, cancer, obesity, heart disease and healthy aging.
• Buy much needed supplies and equipment vital to our research teams, their labs and future discoveries.
• Make it possible for the Center to recruit the ‘best and brightest’ scientists and researchers.
• Are a part of the Foundation’s commitment to raise $10 million dollars over the next four years to achieve the Center’s Vision 2010 strategic plan.
• Help the Foundation to obtain complimentary funding for not one but five newly named research labs and additional resources that might have otherwise remained unfunded.
• Are making a difference by supporting PBRC’s endowment of 11 Chairs and 3 Professorships that provides $500,000 in annual support.