#### FALL 2007 Improving the beauty of future generations FALL 2007 Improving the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of future generations Sector A control of the beauty of the beauty of the beauty of future generations Sector A control of the beauty of the beauty of the beauty of the beauty future generations Sector A control of the beauty of the beau

# **Know**?

**The power of PBRC** is its ability to move from *the fundamental basis of all discoveries with basic research,* to testing these advancements in individuals through *clinical trials,* and finally, *to translate those discoveries to the community at large* through population science.

- **Basic Research** is based on work in laboratories to discover the functions of and interactions among cells, genes and molecules in relation to nutrients, exercise, disease and other influences.
- Clinical Research is the study of the affect on living human beings of new medicines, diets, exercise, nutrients and natural food supplements (like plant extracts). More than 10,000 Baton Rouge residents have participated in various clinical trials at the Center.

 Population Science focuses on understanding the behaviors of large groups of people and how new knowledge – especially new findings on being healthy and staying that way – can be spread, accepted and used by large populations and society as a whole, including health recommendations and government policy.

### ANNUAL GIVING CAMPAIGN LAUNCHES TIM BARFIELD CHAIRS INAUGURAL CAMPAIGN

Community volunteers are launching a fundraising effort to join the fight against an alarming and life-threatening epidemic. The threat is posed by obesity and other nutritionrelated chronic diseases—such as diabetes, heart disease, and cancer. September 10 marked the kickoff of the Pennington Biomedical Research Foundation's first organized Annual Giving Campaign.



▲ Tim A. Barfield, Jr., Annual Giving Campaign Chairman The campaign volunteers will serve as ambassadors to communicate the impact of the Center's work and the need for philanthropic support.

The goal of the medical research at PBRC is to prevent diseases and premature death. A key ingredient for the Center's success

is broad-based philanthropic support from the community to provide unrestricted funding that allows PBRC to recruit the finest scientists in the world and help support their life-saving research.

In Pennington's laboratories, scientists are unlocking the secrets to healthier living and expanding innovative research in preventive medicine. The power of PBRC is its ability



to move from the fundamental basis of all discoveries with basic research, to testing these advancements in individuals through clinical trials, and finally, to translate those discoveries to the community at large through population science programs.

The campaign goal is \$500,000.

"Our volunteers will be soliciting gifts ranging from \$1,000 to \$25,000," said Barfield. "Naturally, gifts of any size are deeply appreciated."

Barfield emphasized that philanthropic support is leveraged to expand research and education in nutrition and preventive medicine. "With every \$1 of unrestricted support, PBRC's scientists and researchers can successfully acquire more than \$3 in additional federal research grants" said Barfield.

For more information about the annual giving campaign, contact Ann Wilkinson, Director of Leadership Giving at (225) 763-2512. You can make a gift online at **www.pbrf.org.** 

Dr. Peter Katzmarzyk was recently named LPFA Chair in Nutrition and recognized at a reception, along with members of the Louisiana Public Facilities Authority, long time supporters of the Pennington Biomedical Research Center. Attending the reception were PBRF Board Member Edward Ashworth, LPFA President & CEO Jim Parks, LPFA Board Chairman Thomas A. Antoon, PBRC Associate Executive Director of Population Science Peter Katzmarzyk, Ph.D., and PBRC Executive Director Claude Bouchard, Ph.D.



A stratus tre's two world as the region in strating two like charactering 2000 MPC. The relation is world as the homes revealed in the ratio of the relation of the relation in the strategy of the relation models of the relation of the relation of the relation we could also be relative to a strate of the relation of t

Why Pennington? A CASE FOR GIVING



### KNOWLEDGE FOR LIFE

### Tips

### Weight Management

- *Aim high for fiber.* Fiber, especially soluble fiber, can help lower blood sugar after meals. 25-30 grams per day of fiber is recommended for adults.
- Variety is key! When consuming fruits and vegetables, choose a wide variety of colors in order to obtain a variety of antioxidants, vitamins, and minerals.
- Weight Matters. Even a small weight loss such as 10% of your body weight can improve blood sugar levels in diabetics.
- Apple or Pear Shape. Apple shape, more fat around the middle area, puts one at greater risk for type 2 diabetes and heart disease. Women should aim for a waist circumference of less than 35 inches and men less than 40 inches.
- Always keep a log of the items you eat, as this is the first step in weight management.

### Prevention

#### **Take Five Small Steps**

- **1.** *Find out if you are at risk:* The first step is to find out if you are at risk for diabetes or if you have pre-diabetes. Talk to your health care provider at your next visit.
- **2. Set realistic goals:** You don't have to knock yourself out to prevent or delay diabetes. Start by making small changes. For example, try to get 15 minutes of physical activity a day this week. Each week add five minutes until you build up to the recommended 30 minutes a day, five days a week.
- **3.** *Make better food choices:* Try to eat more fruits and vegetables, beans, and grains. Reduce the amount of fat in your diet. Choose grilled or baked foods instead of fried.
- **4.** *Record your progress:* Write down everything you eat and drink. Keeping a food diary is one of the most effective ways to lose weight and keep it off. Review this diary with your health care provider.
- 5. *Keep at it:* Making even modest lifestyle changes can be tough in the beginning. Try adding one new healthy change a week. Always get back on track, even if you fall off a few times. The key is just to keep at it. If you have pre-diabetes, the TAKE 5 for Diabetes class has information to help you. **Call 763-0918** to enroll.

### Message from the Executive Director of the Pennington Biomedical Research Center



he last few months have been exciting. We can now begin to envision a new clinical research facility filled with participants and world-class researchers seeking the means to prevent the advent of diabetes, heart disease, obesity and some cancers, and testing new formulas for a healthy lifestyle. As a result of the firm support received on the part of Dr. William Jenkins, former President of the LSU system, the LSU Board of Supervisors, the Louisiana Board of Regents, the Baton Rouge Area Chamber and the Louisiana Department of Economic Development, our Louisiana legislature - with the support of the Governor and the Commissioner of Administration - allocated funds to build a new Clinical Research facility. There are still a few administrative hurdles to overcome, but we are confident that we will be able to begin construction of the building in early 2008.

After witnessing the excellent work our clinical staff has accomplished in cramped and temporary quarters - including a series of trailers - I can't wait to see the growth in our clinical and translational research programs once the new facility becomes available. This 80,000 sq. ft., \$25 million state-of-the-art facility will allow us to compete for more clinical research studies of the National Institutes of Health and will make it possible for us to accept more industry sponsored studies. The new facility will also provide a home for the developing Louisiana Center for Clinical and Translational Studies, a new initiative that should improve the competitiveness of all Louisiana biomedical research institutions in their effort to attract more federal research funding. However, the overarching goal of the new center will be to increase our ability to translate advances in basic and clinical science into better patient care and improved health indicators for the Louisiana population.

The next critical step is to convince the administration to quickly allocate the money set aside by the legislature so that we can bid the project and move forward with the construction phase as soon as possible. This project is a good investment for our state budget. After about three years of operating this new building, we will generate about \$15 million of new grants and contracts, this number increasing to about \$20 million after 5 years. At maturity, the new facility will house about 30 new faculty and 300 support staff.

An important milestone that you should be aware of has recently taken place in our organization. We were able to convince Dr. Peter Katzmarzyk to leave his home in Canada and to move to Baton Rouge in order to lead our Population Science effort. He has become our first Associate Executive Director for Population Science. He brings competence, energy and vision to the Center and we welcome him and his family to our community. You can read more about Dr. Katzmarzyk in this issue.

Finally, we will reach an important milestone in 2008: the first 20 years of operation of the Pennington Biomedical Research Center. A diversified program of activities is being planned to celebrate this 20th Anniversary and it will be communicated to you early next year. However, an indication that the 20th Anniversary will be an important event in the life of the Center may already be on your kitchen counter - we have been chosen as the cover of the latest edition of the Yellow Pages, and as a result will be visible in nearly every home in the area. The first 20 years were nothing but spectacular for the Pennington Biomedical Research Center and we can easily predict that the next decades will bring even more advanced science and recognition to Baton Rouge and Louisiana.

and Banhur

Claude Bouchard, Ph.D. PBRC Executive Director, George A. Bray, Jr. Endowed Super Chair in Nutrition

# **BIRTH DEFECTS LINKED TO DIABETES**

News from the Pennington Biomedical Research Center – and other centers of research – has for years stressed the need for individuals with diabetes to manage their disease to avoid personal dangers: blindness, loss of limbs, and heart failure are among the worst.

Now, two Center researchers are stressing an additional message for expecting mothers who may be diabetic: manage the disease so your children will be born healthy. Michael Salbaum, Ph.D. and Claudia Kappen, Ph.D. – a husband and wife research team of many years – are trying to zero in on a specific birth defect caused by diabetes. Spina bifida is a flaw in the spinal cord found at birth that is often caused by poorly managed diabetes in the mother.

"A baby born from a mother with unchecked diabetes has a three to four fold increase in the chance of this defect," Salbaum said. " But, if diabetes is properly cared for, the chance of this defect occurring is significantly reduced."

But neither Salbaum or Kappen, who also holds the Peggy M. Cole Pennington Chair in Maternal Biology & Risk of Obesity, are satisfied with simply spreading that word, they want to find the cause and cure it. The cause may be in understanding which gene – when turned on or off in the

embryo by diabetes of the mother – leads to this defect during the formation of the spinal cord. With funding from the National Institute of Health, Salbaum and Kappen have narrowed the search from thousands of genes down to perhaps seven. Even so, if they eventually find the specific gene or genes, that's only a small step and really only shows where to start looking for specific answers. It is well known that certain nutrients – folic acid specifically - are essential to avoiding the defect, and Salbaum wants to learn how diabetes may block this nutrient from doing its work.

"We need to know how diabetes of the mother affects the cells of the developing embryo to learn how this defect comes about," Salbaum said. Knowing that might eventually lead to a means of preventing the defect altogether.



Drs. Salbaum and Kappen (foreground) with their research team.

## PROMOTING HEALTHIER LIVES

A word that health researchers use frequently is "translational," meaning the ability to translate findings in the basic laboratory from clinical trials to the world at large quickly and efficiently in order to gain from the benefits of research. At the Pennington Biomedical Research Center, one new research leader is working to translate beneficial research and knowledge into the lives of us all.

Peter Katzmarzyk, Ph.D., has been named Associate Executive Director for Population Science, and will lead a team of researchers in this emerging program at PBRC. He will also occupy the LPFA Chair in Nutrition.

"We're interested in understanding health problems and their impact on populations,"

Katzmarzyk said, "but we're also very much concerned about improving the health of people."

Katzmarzyk explained that he wants researchers at the Center to learn as much as possible about how to live healthier lives, and work to make large social changes, whether in public health care or government policy or even in private industry standards.



Peter Katzmarzyk, Ph.D., Associate Executive Director for Population Science and LPFA Chair in Nutrition

"All public health messages you hear now – wear seatbelts, stop smoking, eat several servings of vegetables and fruits a day – stem from translational research," Katzmarzyk said, "Scientists conducted observations or interventions in large groups of people to find results that translated into good advice in the form of policy or recommendations."

Work already underway at the Center is examining the details of diet and fitness on specific health concerns like diabetes, cardiovascular disease and cancer; researchers are intervening in public schools to learn if health messages and habits learned early will stay for a lifetime; others are examining prenatal nutrition and nutrition in the early postnatal period and its effects on obesity.

Although obesity is a priority research area, Katzmarzyk said he is also quite interested in expanding the influence of the Penningtom Biomedical Research Center internationally to study populations living under the "double-edged sword" of under-nutrition and obesity. "Both exist in the world, sometimes in different areas, and sometimes in the same area," he said, "We need to understand both and improve both. This is a daunting but exciting task."



### Families, friends and neighbors

throughout the community came together for an evening of food, fun and fireworks at the 2007 **Amedisys Soaring to New** Heights annual fundraiser for PBRF. With more than 800 quests in attendance, the 2007 event was the largest Soaring event to date and raised more than \$150,000 in unrestricted funding support for the Center and Foundation.

The Pennington Biomedical **Research Center and Foundation** thanks all of the sponsors, volunteers and guests who helped make the fundraising event such a huge success. 🗗

### At the event:

- **1.** Evening skyline of the 2007 balloon glow
- 2. 2007 Soaring **Event Committee** Members (Front Row, left to right): 2007 **Committee Co-Chair** Svlvia S. Duke, Paula P. de la Bretonne, Maxine Cormier, (back row, left to right) Melanie Boyce, Annette Barton, and 2007 Committee Co-Chair Buddy Tucker
- 3. Sharon and Jack Field
- 4. Alyce and Christopher Blackstone with their children Pierce, Hensley and Cole
- 5. Mary Jane Howell, Beverly Coates and Pat Price
- 6. Taylor Hise, Debra Hise, Richard Hise, and Anne Hise
- 7. Amedisys VP Mike Pitts and daughter Abbey, **PBRF Board Member** Annette Barton, PBRF President/CEO lennifer Winstead and PBRC **Executive Director** Dr. Claude Bouchard
- 8. Campus Federal Volunteer & Hospitality Team









# **New Faculty**



William Johnson, Ph.D., Professor of Biostatistics in Population Science. Dr. Johnson will develop an independent and collaborative research program in epidemiology and

disease prevention. He will also provide support to other research projects in his area of expertise. Dr. Johnson holds degrees from Southeastern Louisiana University, LSU Medical Center, North Carolina State University and Tulane University. He has held positions at the University

of North Carolina, LSU Medical Center, and Tulane University. Most recently, Dr. Johnson has been with the University of Mississippi Medical Center as a Professor in the Department of Preventive Medicine, Division of Biostatistics.



Ph.D. joins the PBRC faculty as Instructor in the Dietary Obesity Laboratory. Dr. Barnes holds degrees from Stillman College and Wayne State University.

Maria Barnes,

Most recently, she has been working as a postdoctoral fellow at PBRC. She will continue working with her mentor, Dr.

George Bray, and other colleagues in experimental obesity and neuroscience.



**Stefany Primeaux**, Ph.D. joins the PBRC faculty as Instructor in the Dietary **Obesity Laboratory.** Dr. Primeaux holds dearees from LSU, Southeastern Louisiana University, and the University

of Georgia. She was a postdoctoral researcher at the University of South Carolina School of Medicine and, most recently, here at PBRC. She will continue working with her mentor, Dr. George Bray, and Dr. Doug Braymer and other colleagues.





**Our Presenting** 

Sponsor

Irene W. and C.B.

PENNINGTON







Our Title Sponsor



Soaring for Health Sponsor





Soaring for Fitness Sponsors

Adams & Reese, LLP, Arthur J. Gallagher Risk Management Services, Inc., Jim and Laura Bailey,

Daniel T. Calongne & Associates, Sylvia and Gene Duke,

KPMG, Lee Michaels Fine Jewelry, McDonald's,

Morgan Keegan & Company, Inc., Morgan Stanley,

Robert Rose Consulting, Inc., University Club Plantation, WHL Architecture





#### Event In-Kind Support and Underwriters

Academy Sports and Outdoors, Baton Rouge Coca Cola Bottling Company, Blue Cross and Blue Shield of Louisiana, Cake Palace, Calvin's Bocage Market. Community Coffee, Matheme's Supermarkets, Mockler Beverage Budweiser, Morgan Stanley, Rickey Heroman's Florist & Gifts, and Sunshine Cleaners

### Soaring Volunteer Support

CAMPUS SFEDERAL

PEAB@DY'S



M.D., Ph.D. joins the PBRC faculty as Instructor in the Transgenic Core/Stem Cell Laboratory with Dr. Randy Mynatt. He holds degrees from

Jingying Zhang,

the Chinese Academy of Medicine in Beijing and JiaoTong University Medical School (Shanghai Second Medical University). Since then he worked as an Associate Professor at Shanghai Second Medical University, a Research Fellow at the University of Nottingham Gene Targeting and Transgenic Unit, and as a Postdoctoral Fellow at PBRC.

# **Promotions:**

- **George Argyropoulos, Ph.D.** has been promoted from Assistant Professor to Associate Professor.
- Andrew Butler, Ph.D. has been promoted from Assistant Professor to Associate Professor.
- Weihong Pan, M.D., Ph.D. has been promoted from Associate Professor to Professor.
- **Tuomo Rankinen, Ph.D.** has been promoted from Assistant Professor to Associate Professor.

- **Jennifer Rood**, Ph.D. has been promoted from Associate Professor to Professor - Research.
- Steve Smith, M.D. has been promoted from Associate Professor to Professor and has joined the Center's Executive Committee as Assistant to the Associate Executive Director for Clinical Research.



### FOUNDATION

### SCHLIEDER EDUCATIONAL FOUNDATION PRESENTS GRANT TO PBRC'S LABORATORY OF PREVENTIVE MEDICINE



Continuing the legacy set in motion many years ago, the Edward G. Schlieder Educational Foundation has

provided a generous new grant of \$250,000 to the Pennington Biomedical Research Foundation (PBRF). The grant will specifically assist with the acquisition of new equipment for the Exercise Testing Laboratory and the Exercise and Fitness Core Facility at the Pennington Biomedical Research Center's Laboratory of Preventive Medicine, led by researcher Timothy Church, M.D., Ph.D.

The grant announcement was made at a recent PBRF Board of Directors meeting held in Baton Rouge. Edward G. Schlieder Educational Foundation President, Mrs. Elizabeth "Betsy" Nalty, also serves on the board of the Pennington Biomedical Research Foundation. Mrs. Nalty's husband, the late Donald J. Nalty, a Trust Officer for Hibernia National Bank in New Orleans and also a former PBRF board member, assisted in managing the Schlieder Trust for many years.

In the new laboratory, Dr. Church and his colleagues will be testing the impact and correct prescription of physical activity on prevention and maintaining better control of diabetes. "For those with diabetes, daily exercie can be the key to controlling this serious disease, because exercise forces muscles to consume blood sugar, helping to keep levels in the healty range," said Dr. Church. The study aims to determine how to choose the type of exercise and how much is needed, aiding individuals and physicians in prescribing for their patients for better blood sugar control and overall health.

"The mission and vision of the Schlieder Foundation is to enhance educational endeavors and those goals are so clearly achieved through this gift to support the Laboratory of Preventive Medicine. The Schlieder Foundation greatly admires the work of the Pennington Biomedical Research Center, and we want to encourage their efforts," said Mrs. Nalty.

"We are proud to have the continuing support of the Edward G. Schlieder Educational Foundation, which also includes two Endowed Chairs at the Pennington Biomedical Research Center: Hibernia/ Edward G. Schlieder Endowed Chair established in May, 1993, and the Douglas L. Gordon Endowed Chair in Diabetes and Metabolism established in January, 2001," said John Noland, PBRF Chairman.

### **DR. CLAUDIA KAPPEN NAMED** THE PENNINGTON BIOMEDICAL RESEARCH CENTER PEGGY M. PENNINGTON COLE CHAIR IN MATERNAL BIOLOGY

The Pennington Biomedical Research Foundation (PBRF) hosted a reception in early August to recognize and welcome Claudia Kappen, Ph.D., recently appointed professor and holder of the new Peggy M. Pennington Cole Chair in Maternal Biology at the Pennington Biomedical Research Center (PBRC).

The Chair honors Peggy M. Pennington Cole, wife of the late C. B. Pennington, Jr., and mother of Claude B. Pennington, III, Paula Pennington de la Bretonne, and Daryl B. Pennington. Mrs. Cole, family members, and friends attended the reception held to honor her and to introduce Dr. Kappen to the community. The early evening reception was held in the lower reception room of the C. B. Pennington, Jr. Building.

PBRC Executive Director Claude Bouchard, Ph.D., welcomed Dr. Kappen and other research associates from the new research program who will be conducting basic science approaches to understand mechanisms underlying the fetal and maternal effects on health of the offspring and on subsequent risks of adulthood diseases. The main goal will be to study the mechanisms through which nutritional and environmental influences during pregnancy, lactation and the neonatal period influence the risk for development of obesity and its effects during adult life.

During the reception, Dr. Bouchard introduced other members of the research team who will be working with Dr. Kappen on the long-term research projects, including Claudia Kruger, Ph.D., and Quinesha Perry, PhD. Joining Dr. Kappen at the reception was her husband, Dr. Michael Salbaum, Ph.D., an accomplished scientist and longtime research partner, who also recently joined PBRC.

In her remarks, Dr. Kappen expressed her deep gratitude to the Pennington, de la Bretonne, and Blackstone families for their continued generosity which led to the establishment of the Chair. Paula de la Bretonne introduced her mother, Peggy, saying that the Chair was a special gift from the families to recognize her loving devotion to them.



▲ (I to r) Dr. Claudia Kappen (Peggy M. Pennington Cole Chair in Maternal Biology at the Pennington Biomedical Research Center), Richard Blackstone, Christopher Blackstone, Paula Pennington de la Bretonne, Jack de la Bretonne, Peggy M. Pennington Cole, and Shannon Blackstone

# **CLINICAL TRIALS FALL 2007**

If you are interested in participating in these or other research studies, call our recruiting department at (225)-763-3000, or visit www.pbrc.edu or email clinicaltrials@pbrc.edu.

### CALERIE II

### How Does Diet Effect Healthy Aging?

*The purpose of the CALERIE II study* is to better understand the effects of a 25% calorie-restricted diet on aging in volunteers between the ages of 25 to 45. Some participants will be placed into a calorie restricted diet group while others will be asked to follow their regular eating patterns. This is a 2-year study.

### Benefits to you:

- Monthly dietary counseling
- Prescribed diet for a healthy lifestyle
- \$5000 compensation

### HART-D

This is a 9-month exercise study for people with Type II Diabetes. Participants will be placed into one of four groups: walking exercise only, strength building exercise only, combination of walking and strength exercise, or standard care.

#### Benefits to you:

- Personalized exercise program supervised by trained staff
- Free use of the PBRC Fitness Center
- Up to \$200 compensation

### Qualifications:

- Type II Diabetes
- Aged 30-75
- Not exercising regularly

### **ACTIV II:**

Pennington Biomedical Research Center is recruiting healthy, normal to overweight (BMI: 22-30) Caucasian men between the ages of 20-40 to participate in an exercise research study.

#### If you are:

- Caucasian Male
- Age: 20-40
- Non-smoker
- Normal to overweight (BMI 22-30)

• Not on a regular exercise program

#### Benefits to you:

- Free membership to the PBRC Fitness Center
- Exercise program supervised by trained PBRC staff
- Up to \$2000 compensation and/or one diabetes medication
- Age: 30-70
- Overweight: BMI range: 25-40 🗳

### LOCAL STUDENT TEAMS UP WITH SENIOR SCIENTIST

Boriss Losso, a recetn Catholic High student, was awarded a research grant from the National Institutes of Health (NIH). And, as part of that grant, was encouraged to report to a nearby NIH-supported expert to undertake his project. Losso contacted Irina G. Obrosova, Ph.D., of the Pennington Biomedical Research Center, who is conducting research on chronic complications of diabetes. Obrosova invited him to join her lab staff in research. Losso has spent a portion of two summers conducting experiments to learn the effects of two new drugs on the development of nephropathy (kidney disease). Losso was invited to present his research in Washington D.C. at an NIH scientific conference. The goal of the NIH program was to promote involvement of bright, minority highschool students in biomedical research, a



Pictured here are Dr. Obrosova and Losso (back row) and lab members Dr.Viktor Drel (front left) and Jeho Shin.

goal joined by PBRC's Division of Education and Dr. Obrosova. Losso won an Award of Excellence and has two manuscripts accepted for publication in the journal "Ethnicity and Disease." Losso is now a freshman at Tulane University.

### WHAT IS UTTER FATIGUE?

Conrad Earnest, Ph.D., knows all about utter fatigue during long exercise events – like the Tour de France. Athletes quite literally hit a wall where their



body's energy stores are depleted, they are likely dehydrated, and their muscles may be cramping. The will may be strong, but the body has just failed.

Earnest faced fatigue himself as a competitive athlete and has studied many other athletes. "You feel like you've been run over: flu-like symptoms, feverish, achy, your energy is gone, you can't think straight and you're desperately trying to keep moving," he said.

So, what to do? Earnest wonders if one key to fighting long-term fatigue maybe be related to cytokines or cells related to the immune system. If so, part of the answer may lie in identifying specific compounds in food. "It would make a nice tie into PBRC's current work with botanicals and brain nutrition," muses Earnest. "Most people look at fatigue as taking place from the neck down. However, the brain has to play a role – especially during decision making."

"Contemporary research on fatigue typically covers short time frames; 2-4 hours," Earnest said, "In these studies, carbohydrates and hydration play a clear role. However, outside of sport, certain professions endure lengthier, more fatiguing situations where critical decisions may result in life or death. How many deaths in combat, for example, result from mistakes borne of fatigue?"

One of Earnest's goals is to seek funding and resources to create a research model to examine fatigue, its progression and how it affects decision making. "Once we have a model, we can develop interventions to try and prevent it."

"What we're looking for is not in your standard dietician's handbook," he said, "nor is it in the current fitness literature." Perhaps with some hard work, one day it will be.

"I don't speak much of individual work. I really talk about the team we've created and the work we do."

That team is now researching many aspects of fitness and diet from the benefits of various forms of exercise on healthy aging to treating diabetes or other diseases. His team recently released a finding that as little as 15 minutes of modest walking a day can increase the fitness of post-menopausal women.



Pennington Biomedical Research Foundation 6400 Perkins Road Baton Rouge, LA 70808-4124 www.pbrf.org www.pbrc.edu (225) 763-2511

### DID YOU KNOW...

PBRC is working with teachers and students in schools throughout Louisiana to improve



the health and nutrition of children across the state. Please help support the work of PBRC by making a gift today.

### PENNINGTON BIOMEDICAL **RESEARCH BOARD OF DIRECTORS**

Chairman, John B. Noland

Immediate Past Chair, Kevin P. Reilly, Sr.

Vice Chair, Paula P. de la Bretonne

Treasurer, C. Brent McCoy

Secretary, Kevin R. Lyle

Directors

Edward B. Ashworth, Jr. Tim A. Barfield, Jr. Annette D. Barton J. Herbert Boydstun J.S. "Si" Brown, III J. Terrell Brown Joseph "Jay" H. Campbell, Jr. Maxine Cormier Brace Godfrey J. Gerard "Jerry" Jolly Roy G. Kadair, M.D. Charles A. Landry Carl S. Luikart, M.D. Elizabeth "Betsy" S. Nalty James M. Nolan Nanette Noland Elizabeth Querbes Sammons Bert S. Turner

Ex-Officio Claude Bouchard, Ph.D. Executive Director, PBRC

John V. Lombardi, Ph.D. President, LSU System

President/CEO, Jennifer G. Winstead

Chief Financial Officer, J. Brad Jewell

Printing compliments of Blue Cross and Blue Shield of Louisiana



### **PBRC IS MAKING A DIFFERENCE!**



Don Bell, 73, travels the world as a tour planner and guide. But, he says, one of the most significant places to him is right here-the Pennington Biomedical Research Center. In 1992, at high-risk for developing diabetes, Don turned to Pennington. He entered the Diabetes Prevention Program, learning that a healthy diet, regular physical activity, and a small weight loss could reduce his risk for diabetes. Now, many years later, Don is still in the program, exercise five times weekly, stays on a modified diet and

remains diabetes-free. In addition to his 45-hour work week, Don volunteers in his community and spends quality time with his grandchildren. "Pennington is our greatest resource, right here at home. I would not be able to do what I do without Pennington."

### YOU CAN MAKE A DIFFERENCE!

Please make a gift today to help continue the vital funding for nutrition-based research. PBRC is striving to prevent premature death from chronic diseases such as heart disease, diabetes, cancer and obesity. Your support will provide funds for vitally needed research equipment, expanded laboratory facilities and resources for recruitment of world-class faculty members.

### Ways to make your gift:

- Make a gift online at www.pbrf.org
- Call us at (225) 763-2646 to make your gift by phone
- To mail your contribution, use the enclosed postage-paid envelope or send to:

Pennington Biomedical Research Foundation 6400 Perkins Road Baton Rouge, Louisiana 70808

Please remember the Pennington Biomedical Research Foundation in your estate plans.

Thank you for supporting the work of PBRC with your gift to the Pennington Biomedical Research Foundation.