

— WINTER 2014 —

President's Letter

You will be reading this letter sometime in 2014 . . . HOLY COW . . . 2014! It is weird to even type that! However, as I type this it is the week of Thanksgiving 2013 and thoughts of cooking, family and how fast Christmas is approaching fill my mind. It is the time of year when I have to remind myself to slow down, take a breath and notice the blessings all around me.

Each night, as my boys and I go to bed, we list three things for which we are grateful. For the past several months, we often mention how thankful we are that Uncle Ronnie is getting better. Uncle Ronnie has been suffering for nearly 6 months from an infection that settled on his heart valve, causing the need for a heart valve replacement. One of the contributing factors of his illness was Dengue Fever. The doctors caring for him have been nothing short of amazing . . . drawing on experience and research to help them choose the best path for treatment. So during my evening ritual, which I cherish, I am constantly reminded how incredibly grateful I am for the hard work, stellar findings, brilliant theories and ideas and incredible minds of everyone at Texas **Biomedical Research Institute.**

The highly skilled scientists at the Institute work tirelessly all year round to make advances

The purpose of the Texas Biomedical Forum is to support the Texas Biomedical Research Institute through community relations, volunteer service and fundraising.



Cathryn Le Vrier

in the treatment of, eradication of, study of things like Dengue Fever. Today I want to give thanks for the honor and privilege of working with strong women within the forum to provide seed money for studies that are truly changing the world.

As we venture into 2014, I think it only fitting to remember the accomplishments of the recent past and say "thank you" to those who made it all

possible. In September, Julian Gold and Robert Rodriguez hosted a fashion show for our benefit that showcased the Fall's hottest trends. Both Julian Gold and Robert Rodriguez agreed to donate a portion of the sales from that day to the Texas Biomedical Forum. With the support of many members and their friends, the event was a tremendous success, raising \$6,750. Holly **Rabinowitz** and **Kati Smith** outdid themselves. Thank you both for all you do. Many thanks as well to **Courtney Percy, James Glover** and everyone at Julian Gold who orchestrated this delightful event.

In November, **Melissa Morgan** and **Courtney Ogle** coordinated the lovely Fall Lecture Luncheon at The Argyle. Texas Biomedical Institute scientist, John Blangero, Ph.D., Director of the AT&T Genomics Computing Center, spoke about Mining the Human Genome for the Secrets Behind Parkinson's Disease. It was an incredibly informative lecture followed by very impressive questions from Forum members and their guests. The giant strides being made in the field of genetics are nothing short of astounding.

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The 2014 Gala, La Dolce Vita, is surpassing previous records for table sales and grants . . . even before all final details are ironed out and invitations mailed. **Daniela Serna, Ashley Hixon** and **Jordan Arriaga**, as well as everyone on their Gala committees, have embraced the job and brought amazing insight, experience and passion to planning our largest annual fundraising event. Their energy is unprecedented, and I am so appreciative of their hard work.

On the education front, we have a record number of high schools signed up for student tours of the Institute this year. It is wonderful to see such an interest from our city's high school teachers and students. Who knows, these tours may be inspiring kids to become future Texas Biomedical Institute scientists! **Ann Walton** and **Christina Mayer** have stepped into the role and continued a strong program that benefits so many. Thank you!

The success of the Fall has created fantastic energy and momentum for the Forum to build

upon in the New Year. January will ring in the New Year with a Roundtable Discussion followed by many other great ways to support our cause throughout the Winter.

"Keep your eyes open to your mercies. The man who forgets to be thankful has fallen asleep in life."

Robert Louis Stevenson

May each one of you find 2014 to be filled with peace, love, happiness and knowledge, and may we NEVER "fall asleep in life".

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Cathryn Le Vrier President

ROUNDTABLE DATE

The annual Roundtable Discussion will be held at The Argyle on January 23, 2014 from 5:30 pm to 7:30 pm. This event is hosted by the Texas Biomedical Research Institute Forum specifically for the education of Forum members and their guests.

The evening will include cocktails, hor d'oeuvres, dessert and engaging conversations with scientists from the Texas Biomedical Research Institute on cutting edge medical research. Invitations to follow soon for this exciting evening!

Correction:

In our Fall 2013 *Forum in Focus* newsletter, we recognized sponsors and forum grant donors from our *La Gloria Havana Gala* held on May 4, 2013. We apologize for our error in omitting three very special supporters. Thank you to Phyllis Browning Company and Sonya Medina Williams and Gene Williams for their generous sponsorship of the Gala at the *Romeo y Julieta* level and thank you to David Yurman for a forum grant at the *Bolero* level. We so appreciate your support!

Fall Lecture Luncheon

This year's Fall Lecture Luncheon was held on November 6th at the Argyle. The luncheon was a great success.

Dr. John Blangero was our featured Fall luncheon speaker, presenting "Mining the Human Genome for the Secrets Behind Diseases of the Brain." In his talk, he discussed





cutting-edge research at Texas Biomed in the fields of Parkinson's disease, Multiple Sclerosis and age-related dementia. These projects use large family studies, brain imaging and the latest genetic sequencing technology to discover genes that are related to each disease. Each of these diseases has a common factor -30 to 40 percent of the variability in risk is due to genetic factors. "It is imperative to identify causal genes involved in these diseases in order to identify novel, high quality drug targets," said John Blangero. In one of the most exciting aspects of the research at Texas Biomed, the scientists will be making brain cells from blood cells using

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STUDENT TOURS

We are happy to report that we have seen yet another increase in the number of student tours for the 2013-2014 school year! This past Fall, the Forum facilItated student tours for Clements High School, Warren High School, Christian Academy of San Antonio, Keystone School, and City Center Health Careers. Thank you to the generous volunteers who contributed their time: **Sheila Mayfield, Leslie Miller,** and **Lisa Miller**.

These educational tours serve as a unique opportunity for high school students interested the fields of scientific research or medicine, and they are a rewarding experience for Forum members as well.

If you would like to volunteer for a Spring tour, please sign up via the Sign-Up Genius, or contact Ann Walton at annswalton@hotmail.com or Christine Mayer at varelamayer@icloud.com.

The 2014 Spring tour dates are on the following Tuesdays from 9:30 am – 11:30 am: January 14, January 21, January 28, February 4, February 11, and February 18.

FALL FASHION SHOW

Julian Gold hosted the Fall Special Event with a Robert Rodriguez fashion show featuring his Fall collection and hollday attire. The event was a huge success with Julian Gold donating \$5,000, personal contributions from Robert Rodriguez and \$1,280 in Raffle tickets sold! Thank you to Julian Gold for your contribution and all of your efforts to make the event such a success! Look for information on a Spring Special Event soon.



Fall Lecture Luncheon

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induced pluripotent stem cell technology. This allows research on the brain cells of individuals in the studies, which has never before been possible. It was an interesting topic for discussion, and it was very exciting to find out about Texas Biomed's involvement in this promising area of medicine.

SAVE THE DATE!

The annual Spring Lecture Luncheon will be held on March 26, 2014 at the Argyle at 11:00 am.

The winners of the Science Education Awards will be announced and honored at this luncheon.







• JODY LUTZ • FORUM MEMBER IN THE SPOTLIGHT

When I was asked to become a Forum Trustee, I was honored. The new friends I have made through this organization have truly impacted my life and I imagine always will. I have learned new skills, met new people and felt through my role working on Science Education Awards that I have had a direct impact on our community. Who could ask for more from a volunteer position?

As a premature baby born in the late 70's I now realize I was a beneficiary of the life saving incubator technology developed by TBRF. But I grew up to be healthy and happy and that was more of a family legend about the "little tiny baby." I was not truly engaged in how medical research could or would impact me directly.

Without warning, at a routine annual exam (that I almost skipped!) life changed. At the age of 35, with no signs or symptoms, without looking or feeling sick I was diagnosed with early stage Ovarian Cancer. One hectic, emotionally charged summer and a few surgeries later I can joyfully proclaim there is no evidence of disease. Our rally cry this summer was, "Cancer picked the wrong girl." In retrospect, those words ring hollow as no man, woman or child is the right one for cancer. I am grateful to the women who traveled on this journey before me. Because of them and their life and death struggles, early detection of this silent disease is possible.

I know I was one of the very fortunate ones. Early detection and rapid, efficient treatment are crucial. I had access to the best healthcare in the world right here at home in San Antonio. We so often put our children, our husbands, our corporate jobs, our volunteer work first. I would not dream of missing a well child visit for our daughter, but I thought twice about my own because I was "so busy." Good health is such a precious gift. Advocate for your own health, do not skip your annual exam, get a physical, talk to a trusted doctor and proactively protect your health as we do that of our families. I share my story not for notoriety or sympathy, but simply as a message of awareness. This is part of my journey and the greater plan for my life, that I am sure.

I could not help but reflect on the work we all contribute via our hours of dedication to the Forum. TBRF has historically made significant scientific contributions to women's health. Our work matters on so many levels! Thank you for your friendship and for all that you do.



EMBRACE LA DOLCE VITA

Join us for *Una Magica Notte En Toscana* on Saturday, May 3, 2014 at The Argyle and enjoy the several surprises we have in store for you. Wear your favorite Italian designer, sip on Prosecco and enjoy fine Tuscan cuisine, all while providing funding for the pilot studies at the Texas Biomedical Research Institute!

We unveiled the theme, LA DOLCE VITA, at the 2014 Gala Committee kick-off meeting on Wednesday, September 18, 2013 at The Argyle.

Committee members enjoyed Italian inspired treats and limoncello sodas while Ken Trevett, President and CEO of Texas Biomedical Research Institute (Texas Biomed), encouraged us to continue what we are doing and reminded us all that our efforts truly benefit Texas Biomed. Everyone in attendance was excited and gave great feedback to make this another wonderful and successful Galal Daniela Serna and Ashley Hixon, Gala Co-Chairs and Jordan Worth Arriaga, Gala Assistant, are truly grateful for all of the volunteers and the hard work they have already put into this very special event in our community.

We are very excited to announce that we are officially SOLD OUT! Sheila Mayfield, Table Sales Chair, once again has taken her role and gone above and beyond. She is an amazing volunteer! Table sponsorship letters were promptly mailed and the sales were quickly made, with more tables sold at \$5,000 or higher than ever before! We can't thank Sheila enough for her efforts and her amazing work that has resulted in selling out the Gala in record time! We currently have a waiting list, but please stay tuned for further details on possible added table sales and individual tickets as well as ticket sales for our well-renowned After Party!



Another truly exceptional report involves the Forum Grant donations: we have received over \$15,400 and hope to achieve and surpass our \$40,000 goal. Sara Walker, Grants Chair, sent out timely Grants Donation letters and kicked off this effort at the November 6th Fall Lecture Luncheon. Several attendees at the luncheon, as well as the San Antonio community, have generously supported the Forum Grants effort thus far.

As we get closer to the party, we want people to remember that everything we are doing to make this event successful benefits a great cause. Our efforts directly impact and fund the pilot studies for the wonderful scientists at the Texas Biomed. The Institute is a unique and special place that calls San Antonio home. We hope you too will consider making a donation that directly supports the Institute's research efforts.

For more information on the 2014 Gala, please visit www.txbiomed.org/forum.

We look forward to spending Una Magica Notte en Toscana with you and to celebrating La Dolce Vital

Texas Biomed Updates

STEVENS FOUNDATION OF KERRRVILLE AWARDS \$1.5 MILLION TO TEXAS BIOMED TO STUDY CAUSES AND POTENTIAL THERAPIES FOR PARKINSON'S DISEASE

The Perry & Ruby Stevens Charitable Foundation has awarded \$1.5 million over three years to the Texas Biomedical Research Institute to advance existing neurological research in the study of the causes of, and therapeutic approaches to, Parkinson's disease.

"If Ruby Stevens were alive today, she would write out a check for this cause. That is what Ruby and Perry would have liked and we are pleased to carry this out on their behalf," said Phillip Milton, one of the foundation's four trustees.

"This grant elevates our already substantial research on diseases related to the brain by optimizing resources we've developed over decades of research on the genetics of common diseases. At the same time the project will utilize the very latest technology," said Sarah Williams-Blangero, Ph.D., Texas Biomed's Genetics Department chair.

Directed by John Blangero, Ph.D., the research will incorporate members of the San Antonio Family Study population, which is well characterized and has whole genome sequence data available for participants.

Parkinson's disease (PD), which afflicts as many as 1 million Americans, is a movement disorder associated with the degeneration of cells in a brain area called the substantia nigra. Unfortunately, the mechanism underlying this neurodegeneration remains poorly understood. Basically, neurons lose their ability to respond to dopamine, a critical neurotransmitter. At least 30 percent to 40 percent of the variability in risk of PD is due to genetic factors.



"It is imperative to identify causal genes involved in the common form of PD in order to identify novel, high quality drug targets," said John Blangero. "This newly funded project is very exciting because we'll be making brain cells from blood cells using induced pluripotent stem cell technology. We'll then perform deep cellular phenotyping on the neurons and search for genes that may be good drug targets."

Classical genetic approach-

es based on studies of related affected individuals generally are not feasible due to the late onset of the disease. In other late onset diseases, such as heart disease, it has been possible to identify correlated biomarkers (such as cholesterol measures) which can be measured in all individuals (including both unaffected and affected individuals) that strongly correlate with risk and that can act as powerful surrogates for identifying disease-related genes. Unfortunately, there are no unequivocal, easy-to-measure surrogates for PD risk. This research project will explore, and hopefully identify, useful biomarkers that can help identify those at early stage and possibly those at high risk of PD.

The Perry & Ruby Stevens Charitable Foundation, located in Kerrville, Texas, was established by Ruby Stevens in January 2006 in accordance with the wishes of her late husband, Perry Stevens. The purpose of establishing the Foundation was to provide assistance to qualified non-profit organizations that direct their activities toward a number of specific charitable purposes including the prevention, research and treatment of Parkinson's disease.

Biomed Updates

Lloyd Phinney, leader in laboratory animal medicine, is appointed assistant director at Southwest National Primate Research Center

Lloyd T. Phinney Jr., D.V.M., has been appointed assistant director of Veterinary Resources and Research Support at the Texas Biomedical Research Institute's Southwest National Primate Research Center (SNPRC).

In his new position, Phinney is responsible for the daily supervision of the SNPRC's veterinary professional and technical staff and assists in the management of all veterinary resources and research support activities.

"Dr. Phinney has had a wide range of experience with laboratory animal programs, including leadership positions in the US and abroad, that make him uniquely qualified to help us manage all aspects our primate research center," said John Bernal, D.V.M., the SNPRC's associate director.



"Texas Biomed has made many contributions to advancing medical science that have benefitted millions of people worldwide," said Phinney. "I look forward to playing a role in future discoveries that will certainly contribute to many more improvements in human health."

Phinney received a D.V.M. degree from Oklahoma State University in 1993 and earned a Master of Public Health from the Uniformed Services University of the Health Sciences (USUHS) in Bethesda, Maryland in 1999. He entered the United States Army in 1993 and has served as a Veterinary Corps Officer at numerous assignments in the United States, Saudi Arabia and Southeast Asia. During this period, he provided leadership and expertise as a laboratory animal medicine veterinarian at five Defense Department biomedical laboratories conducting preclinical research that support military personnel.

At USUHS, he helped publish a followup study of Marine recruits who suffered an exertional heat illness episode. He also provided laboratory animal medicine support within biocontainment laboratories at the U.S. Army Medical Research Institute for Infectious Diseases at Fort Detrick, Maryland. Since then he has served at four other Defense Department biomedical laboratories located in Thailand, Maryland, and Texas. At the U.S. Army Medical Component--Armed Forces Research Institute of Medical Sciences (AFRIMS) in Thailand he was the Attending Veterinarian for nearly five years and led one of six research departments. AFRIMS is the largest overseas accredited animal research facility in the Defense Department, housing more than 650 nonhuman primates.

At the Walter Reed Army Institute of Research, he served as Deputy Director, Division of Veterinary Medicine, providing laboratory animal expertise to more than 100 scientists. He has extensive experience managing highly trained personnel, maintaining the highest quality research animals, providing complex technical and facility support, and ensuring regulatory compliance of all proposed research and training activities involving laboratory animals.

Phinney is a diplomate of the American College of Laboratory Animal Medicine and of the American College of Veterinary Preventive Medicine.

Biomed Updates

GENETIC LINK TO OBESITY MAY PAVE THE WAY FOR TREATMENT TARGETS



For the first time, imaging studies have identified genetic components that influence both brain anatomy and body mass, providing a crucial link between brain anatomy and obesity.

"Our study represents the first genetic analysis finding evidence of genes and their effects on both brain anatomy and obesity," said Joanne Curran, Ph.D., a Texas Biomed geneticist and first author of the paper. "Our results identify two genomic regions influencing brain anatomy and BMI, one on chromosome 17 that contributes to the development of obesity through the regulation of food intake, and a region on chromosome 3 that appears to influence the brain's food-related reward circuitry."

The study, funded by the National Institutes of Health, was published in the journal Human Heredity. David Glahn, Ph.D., an associate professor of psychiatry at the Yale University School of Medicine, is the senior author on the paper.

Obesity is a major contributor to chronic disease and disability worldwide. In the US alone, one third of the adult population is obese and more than two thirds are overweight or obese. The prevalence of obesity among youth has tripled in the past 10 years, with 17 percent of children and adolescents now considered obese. In 2009, only two U.S. states had an obesity prevalence rate of less than 20 percent, and a staggering 33 states had prevalence rates greater than 25 percent.

Of major importance for providing insight into this epidemic is the characterization of a poorly understood genetic component to disease susceptibility. Obesity-related traits are 40 percent to 70 percent heritable, yet risk genes remain elusive. The latest update of the Obesity Gene Map reports 127 candidate genes identified for common human obesity. However, only 22 of these genes are supported by multiple studies.

In the new study, MRI images of brain anatomy were acquired in 839 Mexican-American individuals from large extended pedigrees. Brain imaging studies were conducted at the Research Imaging Institute of the University of Texas Health Science Center at San Antonio, directed by Peter Fox, M.D., a co-author on the paper.

A sophisticated analysis showed that genetic factors associated with an increased BMI were also associated with a reduced cortical surface area and subcortical volume. The scientists identified two genomic locations that influenced BMI and brain areas involved in the regulation of eating behaviors.

Future use of whole-genome sequence data in these regions provides a powerful approach to finding causal variants and potential obesity treatments, Curran said. "Indeed, by discovering genes that predispose obesity risk, our eventual goal is to speed the development of drug targets to slow the epidemic advancement of obesity," she said.



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