



Forum in Focus

FALL 2013

President's Letter

After a fun filled but incredibly hot summer, it is with pleasure that I write my first President's Letter for the FALL Forum in Focus. Over the years I have been involved in the Forum, I have met and become close friends with many of the devoted women who have dedicated countless hours to one of San Antonio's most important institutions, Texas Biomedical Research Institute. As you all know, our purpose – to establish and strengthen community relationships, offer volunteer services and fundraise for Texas Biomed – plays a vital role in progress that is made at the Institute. I want to thank each of you in advance for the role you play in continuing the forward momentum. I've enjoyed the initial planning and work that has been done over the last few months.

Becoming President of the Texas Biomedical Forum is something I've been looking forward to for some time. My desire to be involved with such an incredible group of women is very personal for me, as I know it is for many of you. We should all be proud to join the women who, for the past 43 years, have been making such an invaluable impact. The 2013-2014 term promises to be just as impactful!

May 2013 marked the completion of a terrific year led by Past President, **Julie Zacher** . . . and that term ended on a monumental note with the success of Havana, our annual Gala. Many thanks to the tremendous work of Gala Chair, **Melissa Morgan**, Gala co-chair, **Courtney Duphorne** and Gala



Cathryn Le Vrier

Assistant, **Daniela Serna**. The event raised unprecedented amounts of seed monies for Texas Biomed scientists and their pilot studies. The May 2014 Gala has a hard act follow!

However, 2013-2014 Gala Chair, **Daniela Serna**, Gala Co-chair, **Ashley Hixson** and Gala Assistant, **Jordan Arriaga** are well on their way to planning another exciting, unique and successful event. I can't wait to find out what this year's theme will be.

Summer ended early, not only for the Gala gals but also for some of our other generous trustees as their jobs required getting the ball rolling before now. **Carla Nelson** and **Edie Wright** are the Newsletter Co-Chairs who put together this newsletter and will also be working on the upcoming Winter and Spring newsletters.

Amanda Bezner, our Membership Chair, has been working hard on renewing and recruiting members. It's never too late to renew if you haven't. Go to www.txbiomed.org/forum . . . and encourage friends to do the same!

Tracee Feik and **Elizabeth Cox** have been hard at work finalizing the 2013-2014 directory, which will be hitting your mailboxes this month.

Just around the corner, we have an amazing afternoon planned! Many thanks to **Holly Rabinowitz** and **Kati Smith** for coordinating our first fundraising event of the year at Julian Gold. On Wednesday, September 25, each of you will have the chance to meet a very special guest Designer, Robert Rodriguez. A percentage of the day's sales are donated to the Forum . . . so come ready to shop, sip and spend!

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

(Continued on Page 2)

□ *President's Letter* □

(Continued from Page 1)

Look out for more information regarding our Roundtable Discussions event that **Ann Cross, Sonya Medina-Williams** and **Tammy Cochran** are planning at The Argyle. This event is always such a treat. Guests will enjoy meeting various scientists from Texas biomed and hearing more about the projects they are working on currently . . . all the while enjoying cocktails and appetizers.

In early November, there will be another stimulating opportunity for Forum members and guests. Our Fall Lecture Luncheon is being planned by First Vice President and Luncheon Chair, **Melissa Morgan** and Luncheon Assistant, **Courtney Ogle**. Our goal is to sell out this event, so please try to attend and encourage potential new members to join you.

One of our most loved and thriving programs also kicks-off in the Fall . . . Student Tours. **Ann Walton** and **Christina Mayer** will be scheduling and leading local science students on guided tours of the Institute. These tours are truly inspirational and life changing to the students. Volunteers are always needed during each tour, so please plan to sign up as a chaperone for at least one Tour. It's truly one of my favorite parts of being a trustee!

In addition to student tours, the Forum supports science education in San Antonio with our annual Science Education Awards. Area students and teachers are encouraged to apply for grants that we provide for programs designed by high school science teachers. **Jody Lutz** and **Sara McCamish** will be reaching out to these teachers and coordinating this awards program.

As a true working board, we all have jobs that require additional support. **Julie Dorbandt** will be our "go to" person anytime we need volunteers to help us succeed in our assigned jobs. Julie will reach out to the membership to schedule volunteers for any of the tasks the Forum takes on this year. She is truly an asset to each individual event and job. Don't forget how valuable a resource she is . . . and use her!

Lisa Miller will be recording the minutes of each trustee meeting as recording secretary. **Courtney**

Percy will act as Corresponding Secretary. If you are aware of any member with a significant life event please pass along this information to Courtney.

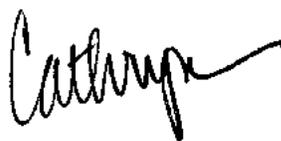
Sheila Mayfield will continue in a finance role as this year's Treasurer. **Lisa Westmoreland** is the Assistant Treasurer and will coordinate accounts payable and receivable for the gala. **Leslie Miller** will act as Parliamentarian and ensure we operate our meetings under the guidance of Robert's Rules of Order.

Sarah Moore will continue in her role as photographer and will be on-hand to ensure each event is documented digitally, while **Sara Walker** will act as historian. **Clare Duffin** and **Lindsay Archer** will be bringing us into the new age of social media . . . creating a customized Facebook page for the Forum and brainstorming other ways to help us stay connected. **Tracy Williams** will keep us organized from a data standpoint while **Elizabeth Carrington** will keep our website up to date.

You will also see two very special faces join us as trustees throughout the year. I am honored to have **Laura Moorman** and **Maxine Farrimond** as my advisors during my term as President. I can't thank them enough for their support.

I look forward to the many opportunities the year holds in store for us. We definitively have a high quality group of women involved to do the job flawlessly. It will be a terrific year so please get involved and attend as many of our annual functions as possible. The experience that comes from them will continue to fuel the fire that made you get involved in the first place. Take with you, to each meeting and event, a great sense of pride . . . as you are permanently and positively making a global impact that scientists will continue to build on for years to come!

Sincerely,



Cathryn Le Vrier
President 2013-2014
Texas Biomedical Forum

Texas Biomedical Forum 2014 Gala is Full of Surprises!

We have several surprises in store for you this year at the 2014 Texas Biomedical Forum's Annual Gala! Save the date for the 44th Annual Gala on **Saturday, May 3, 2014** at The Argyle. Daniela Serna and Ashley Hixon, Gala Co-Chairs and Jordan Worth Arriaga, Gala Assistant, have been busy planning a special evening that will include fabulous cuisine and wonderful entertainment!

And speaking of surprises . . . We look forward to unveiling this year's theme at our Gala Kick-Off Committee Meeting, which will be held on **Wednesday, Sept. 18, 2013** at 9:30 a.m. at The Argyle. Mark your calendars and stay tuned for details via email regarding this event. As you know, the Gala could not succeed each year without the help of many volunteers, so if you would like to be a part of this committee please contact Jordan Worth Arriaga at jordana@rlworth.com or 832-452-2202.

As you may have noticed, the Gala 2014 pre-sale table letters went out this summer to last year's Gala attendees. The letter offered the option to make an **early commitment** of support by being a **premium table sponsor** (tables of \$5,000 and above). We are happy to report that we have already received several premium table sponsorship commitments! All those committed at this level, will be invited to our **first ever VIP reception** in honor of this year's Gala (lovely perk!) and will be recognized in a larger table sales effort this fall (great advertising!).

The deadline to early commit is **Monday, September 30, 2013**, so there's still time. If you have any questions regarding Table Sales, please contact Sheila Mayfield, Table Sales Chair at sheila@alumni.upenn.edu or 858-775-8254.

And, don't forget . . .

- Seating at the Gala is limited, so please do not hesitate to send Sheila a quick email to reserve your table today!
- If you are not able to attend the Gala, please consider making a Forum Grant donation, which directly supports the Gala's efforts to help the Texas Biomedical Research Institute. If you have any questions regarding Forum Grants, please contact Sara Walker, Forum Grants Chair at sstumberg@gmail.com or 210-867-7272.

How can you help, you may ask?

- Share the name of any corporation or individual that is interested in attending the Gala or making a Forum Grant donation, and we will happily contact them and mail them a sponsorship package promptly.
- Sign-up to be a part of a Gala Committee . . . it's not too late! As you know, the Gala could not succeed each year without your help. If you are interested in getting involved, please contact Daniela Serna at daniela1129@hotmail.com or 210-365-8313.

For more than 40 years, the Forum has helped raise much-needed funds through contributions to the annual Gala. Specifically, the Gala raises money for the scientist's pilot ("test") study funds. The fundraising efforts of the Forum have allowed researchers to apply for additional grant monies amounting to \$30 million. So, we sincerely hope that each and every one of you attends Gala 2014 to celebrate and support our very own Texas Biomedical Research Institute.

Stay tuned for SURPRISES yet to come at Gala 2014 . . . you won't want to miss it!

— Past President's Letter —

"No one can whistle a symphony. It takes a whole orchestra to play it." I'm not sure who said that, but I certainly concur. The greatest thing about being President of the Forum – and all the years I have been a Trustee – is being part of a team. Individual commitment to a group effort is why we are successful as an organization. 43 years ago, a group of young enthusiastic women shared a vision and started the Forum. Today we continue with that vision and are truly making a difference. I feel lucky to have had the opportunity to work with some of the most dynamic women in San Antonio for the last 7 years as a trustee of the Forum

We had a wonderfully successful year, culminating with a check presentation to Texas Biomed for \$200,000 last month! This incredible achievement was the result of the efforts of many. I would like to specifically thank our 2013 Gala Chairs, **Melissa Morgan, Courtney Duphorne**, and Gala Assistant, **Daniela Serna** for their tireless dedication all year. The hard work paid off and the Gala was one of the most successful in our history. Most importantly, the funds raised from this event will result in multiple grants for pilot studies at Texas Biomed. This is something we can ALL feel good about! I am indebted to the entire board for all of your time, talent and dedication to our cause.

It was a privilege and honor to serve as your President last year. While it is somewhat bittersweet to move on, I feel confident that the Forum is as strong as ever and will continue to thrive under the leadership of Cathryn Le Vrier.

I am forever grateful of this richly rewarding experience and thank you all for your support.

Warmly,



Julie Zacher

STAY TUNED

The annual Roundtable Discussion will be held at the Argyle in January 2014. 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 scientist from the Texas Biomedical Research Institute on cutting edge medical research. Invitations to follow soon for this exciting evening!

VOLUNTEERS.

Are you looking for a way to get more involved with Texas Biomedical Forum? Consider volunteering your time this year to the many opportunities the Forum has to offer: greet guests at the Fall and Spring Lecture Lunches, attend a Student Tour of Texas Biomedical Research Institute, offer assistance with a Forum special event, or share your talents with the Annual Gala. You can access the Forum's website at www.txbiomed.org/forum to find dates that will fit your schedule. Thank you for supporting Texas Biomed with your time and commitment. Please contact Julie Dorbandt with questions regarding volunteer opportunities: 210-215-4997 or jdorbandt@gmail.com.

SAVE THE DATE

Save the date for our Fall Special Event – Wednesday, September 25, 2013. Designer Robert Rodriguez will be joining us at Julian Gold for lunch, an in store style show and an all day shopping event. 10% of all sales are donated to the TBF. You don't want to miss! For additional information please contact Kati Smith at katibsmith@yahoo.com.



La Gloria Havana Gala – A Huge Success

La Gloria Havana was the theme of the Texas Biomedical Forum’s annual Gala this year, held on May 4th at The Argyle. For 43 years, Texas Biomedical Forum has supported the mission of the Texas Biomedical Research Institute through fundraising and community awareness, with the annual Gala being the primary fundraiser for the Forum.

Using the money raised by the annual Gala, Texas Biomed researchers have qualified for more than \$30 million of additional funding in the last ten years. Each year numerous volunteers work tirelessly, giving their time and talents to produce this great event. This year was no exception, raising an astounding \$200,00 for Texas Biomed!

Gala Chair, Melissa Morgan, Co-Chair, Courtney Duphorne and Gala Assistant, Daniela Serna chose to celebrate the rich and dynamic culture of the infamous tropical city of Cuba for this year’s Gala. Preparations began in the summer of 2012 and continued until the day of the event. An incredibly talented volunteer committee worked for over nine months to create the beauty, glamour and huge success of La Gloria Havana.

Beginning in the early fall of 2012, Table Sales Co-Chairs, Kathleen LeFlore, Wendy Garcia and Monica Iacobucci’s began the fundraising process. Their carefully organized efforts yielded impressive table sales figures and all available space at The Argyle was used. The event was sold out well in advance of the Gala! Additionally, Forum Grant Chair, Ashley Hixon exceeded the Forum Grant donation goal and raised over \$50,000 that directly impacted Texas Biomed.

We can’t thank our generous Table Sponsors and Forum Grant Donors enough for making our fundraising efforts such a success!

The invitations inspired by Cuban tobacco paper were perfectly executed by Invitations Chair, Chaney Stuart and her team. The amazing décor was thanks to Decorations Chair, Kim Shepperd who worked to create the style and ambiance of a Cuban inspired setting. The amazing black and white checkered floor set forth the Cuban flare.

As guests arrived at The Argyle, they were greeted with Cuban inspired specialty cocktails (a Cohito or an Old Cuban) and hors d’oeuvres (fried tostone with ropa vieja, shrimp and potato croquette with lime aioli and black bean cake with goat cheese and smoked tomato). Guests could stare into the eyes of Fidel Castro, while visiting the hand rolled cigar tent. And, the weather was truly amazing . . . not too hot at all!

As dinner was served, guests were greeted by the beauty and simplicity of the table decorations inspired by the tropical city of Cuba.

Menu Co-Chairs, Lisa Spielhagen and Raven Labatt did an amazing

job working closely with Argyle Chef, John Barrios and Argyle



Manager, John Marotta to create a menu that truly made you feel like you were traveling through Cuba. The delicious meal began with mango avocado salad with cilantro lime vinaigrette, followed by petit filet with creole sauce and mojo-marinated grilled quail, along with a delicious potato croquette, asparagus bundle and pan Cubano and finished with a delectable fried banana with guava and dulce de leche.

Guests had a special gift on their seat compliments of prestigious retailer Neiman Marcus. Thanks to Sonya Medina Williams for coordinating with Neiman Marcus on their generous gifts to Gala attendees.

Festivities continued after dinner as guests filtered outside into the primarily white adorned tent for dancing to the sounds of DJ Lucy Wrubel.

La Gloria Havana Gala

(Continued from Page 5)

Many thanks to Entertainment Chair Michele Stevens for coordinating that fun and vibrant atmosphere. Yet before stopping into the tent, many Gala ladies took advantage of the unique Lip Bar set up by and courtesy of our friends at Neiman Marcus.

After Party Chairs, Kate Crawford and Kim Johnson ensured that the fun continued late into the night! Gala guests truly enjoyed the photo booth as well as the return of gaming! Thanks to Elizabeth Carrington, Jody Lutz, and Sarah Moore for their hard work in executing this cumbersome task. Craps and Black Jack tables were enjoyed by many of the guests.

And after dancing the night away, most guests took advantage of a late night taco to help replenish all the energy expended at the After Party. The taco truck was a huge success!

One of the highlights of the evening is always the spectacular raffle.

Our raffle committee, led by Raffle Co-Chairs Jennifer McLiney and Amy White put together an incredible raffle. This year's packages included a Julian Gold shopping extravaganza, a glorious night at The Argyle, VIP pampering at Neiman Marcus, and several other amazing packages. The excitement continued thanks to Shetler Wade Jewelers who generously donated the "Surprise" raffle. Thank you to Kim Shepperd, Surprise Chair for coordinating that effort.

Many thanks to Carla Nelson, Logistics Chair who ensured that set up went smoothly on the day of the event.

The Gala was also well publicized to various media outlets in San Antonio thanks to our PR Chair, Leslie Miller. Don't forget to check out Society Diaries magazine that will feature a multi-page spread very soon! We would like to extend a very special thank you to Marks Moore

Photography for taking photos the night of the Gala and then generously donating back to the Forum all proceeds from the sale of the photos. Thanks, Marks!

In addition, many thanks goes to Sheila Mayfield, Gala Treasurer who had the tedious task of tracking all of the donations and expenses as well as managing the bank account.

Last but not least, we are very thankful for our advisors, Suzanne Dabbous, Karen Lee Zachry and Allison Zeller, as well as Immediate Past President, Julie Zacher for their invaluable advice and support in the planning of this event.

We are so appreciative to everyone who came and supported our cause. It was an amazing evening thanks to the efforts of so many volunteers. What an honor to help further the very important research of Texas Biomed.

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FORUM GRANTS – (Continued from Page 6)

ROMEO Y JULIETA (Continued)

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SPECIAL THANKS TO OUR RAFFLE DONORS

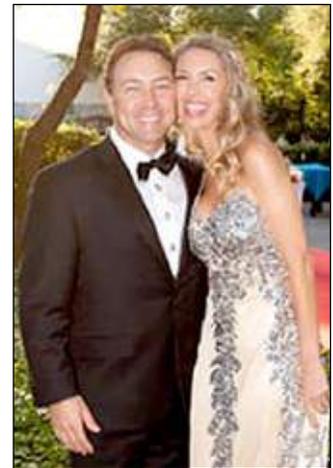
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SPECIAL THANKS

The Argyle
Azar Distilling – Cinco Vodka
The Events Company – Richard Flowers
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Shetler Wade Jewelers

La Gloria Havana Gala Photos



STUDENT TOURS

Student Tours are a fantastic opportunity for area high school students, and a rewarding experience for Forum volunteers!

Each year the Forum facilitates an in depth tour of the Texas Biomedical Research Institute for several advanced placement biology and chemistry classes in San Antonio and the surrounding areas. This year's school tours are completely booked, and we have a waiting list of more than a dozen schools for the 2014-2015 school year.

Student and Forum tour volunteers will be treated to lectures from scientists in the Department of Virology and Immunology and the Department of Genetics, as well as to staff guided tours of the AT&T

Center, the suit room of the Biosafety Level 4 containment laboratory, and the Southwest National Primate Research Center.

All Forum members are encouraged to attend at least one student tour.

Tours will be given Tuesdays from 9:30 - 11:30 a.m. on the following dates:

FALL 2013

September 10th, 17th, 24th
October 1st, 8th, and 15th

Spring 2014

January 14th, 21st, 28th
February 4th, 11th, 18th

Please contact Christina Mayer to schedule your tour at 210-291-6426 or varelamayer@yahoo.com.

FALL LECTURE LUNCHEON

The Forum would like to invite you to join us for the Fall Lecture Luncheon on Wednesday, November 6, 2013 at 11:00 a.m. at the Argyle.



We are thrilled to have the Texas Biomedical Research Institute's scientist, John Blangero, Ph.D., as our featured lecture luncheon speaker discussing "Mining the Human Genome for the Secrets Behind Parkinson's Disease."

Dr. Blangero's focus includes a major program in diseases of the brain, including Parkinson's disease and Multiple Sclerosis. His research combines multiple resources – members of large

family studies (a Texas Biomed hallmark), the AT&T Center with more than 8,000 computer servers for genomic analysis and a collaborative relationship with the Research Imaging Center at UT Health Science Center. Dr. Blangero and a team of Texas Biomed researchers are working today to understand the role of genes in brain diseases and to identify targets for new therapies that can relieve the terrible burdens these diseases place on us today.

We hope you will join us for what promises to be an informative and interesting lecture about this important research topic.

Invitations will go out this fall. Reservations for tables of eight or individual tickets will be available for purchase on our website, <http://txbiomed.org/forum/lecture-luncheons>. This event is likely to sell out, so get your tickets early!

FOUR GENES IDENTIFIED THAT INFLUENCE LEVELS OF “BAD” CHOLESTEROL; MAY BE NEW TARGETS FOR TREATMENTS TO REDUCE HEART DISEASE RISK

Scientists at the Texas Biomedical Research Institute have identified four genes in baboons that influence levels of “bad” cholesterol. This discovery could lead to the development of new drugs to reduce the risk of heart disease.

“Our findings are important because they provide new targets for the development of novel drugs to reduce heart disease risk in humans,” said Laura Cox, Ph.D., a Texas Biomed geneticist. “Since these genes have previously been associated with cancer, our findings suggest that genetic causes of heart disease may overlap with causes of some types of cancer.”

The new study, funded by the National Institutes of Health (NIH), was published in the July 2013 issue of the *Journal of Lipid Research*.

Texas Biomed scientists screened their baboon colony of 1,500 animals to find three half-siblings with low levels of low density lipoprotein (LDL), or “bad,” cholesterol, and three half-siblings with high levels of LDL. In the study, these animals

“It is well-known that a high level of LDL is a major risk factor for heart disease.”

– Laura Cox, Ph.D.

were fed a high-cholesterol, high-fat diet for seven weeks. Scientists then used gene array technology and high throughput sequencers to home in on the genes expressed in the two groups and differentiate

those in the low LDL groups from those in the high LDL group. They discovered that four genes (named *TENCI*, *ERBB3*, *ACVR1B*, and *DGKA*) influence LDL levels. Interestingly, these four genes are part of a signaling pathway important for cell survival and disruption of this pathway promotes some types of cancer.

It is well-known that a high level of LDL is a major risk factor for heart disease. Despite concerted efforts for the past 25 years to manage cholesterol levels through changes in lifestyle and treatment with medications, heart disease remains the leading cause of death in the United States and around the world. It will account for one out of four U.S. deaths in 2013, according to the American Heart Association.

Heart disease is a complex disorder thought to be a result of interactions between genetic and environmental factors, which occur primarily through diet. To understand



Laura Cox, Ph.D.

why humans have different levels of LDL and thus variation in risk for heart disease, the genetic factors causing these differences need to be understood.

However, these studies are difficult to do in humans because it’s practically impossible to control what people eat. Instead, Texas Biomed scientists are using baboons, which are similar to humans in their physiology and genetics, to identify genes that influence heart disease risk.

The new research also suggests that knowing many of the genes responsible for heart disease may be necessary to devise effective treatments. For example, several genes may need to be targeted at once to control risk.

The next step in this research is to find the mechanism by which these genes influence LDL cholesterol. “That starts to give us the specific targets for new therapies,” Cox said. If all goes well, this information may be available within two years.

Other Texas Biomed scientists on the study included Genesio Karere, Ph.D.; Jeremy Glenn, B.S.; Shifra Birnbaum, B.S.; Michael Mahaney, Ph.D.; and John L. VandeBerg, Ph.D.

MICHAEL OLIVIER, EXPERT IN THE STUDY OF GENES AND PROTEINS AND THEIR ROLE IN HUMAN DISEASE, APPOINTED TO GENETICS FACULTY AT TEXAS BIOMED

Michael Olivier, Ph.D., professor of physiology and director of the Wisconsin Center of Excellence in Genomics Science at the Medical College of Wisconsin in Milwaukee, has been appointed to the position of Scientist in the Department of Genetics at the Texas Biomedical Research Institute.

“We are thrilled that Dr. Olivier will be joining Texas Biomed,” said Sarah Williams-Blangero, Ph.D., the department chair. “He is a leader in the field of understanding how gene variations affect the structure and function of proteins. This research ultimately will lead to new approaches for treating many disorders, including diabetes, obesity and heart disease.”

“We are very grateful to these organizations for making this recruitment possible,” said Kenneth P. Trevett, Texas Biomed’s president and CEO. “This particular recruitment is a key element of our major effort to attract more world-class scientists to the institution, scientists who will enhance existing research programs, initiate new ones, and accelerate the pace of discovery.”

“My lab is interested in the genetic and functional analysis of common human disorders, with a special interest in lipid abnormalities such as high cholesterol and high plasma triglyceride levels. We are trying to determine how these factors contribute to cardiovascular disease risk, especially in obese individuals. I am also interested in other complications of obesity, such as fatty liver disease,” Olivier said.

“My expertise in technology, especially in proteomics – the analysis of proteins – can con-

tribute to many ongoing Texas Biomed studies on both humans and baboons. We will be able to merge our tools and technologies with the outstanding resources and study cohorts at Texas Biomed,” he added.



Michael Olivier, Ph.D.

Olivier is a native of Cologne, Germany. He joined the Medical College of Wisconsin in 2001 as an assistant professor. He was promoted to associate professor in 2004 and to full professor with tenure in 2009. In addition to his position as director of the Wisconsin CEGS, Olivier is co-director of the TOPS Center for Obesity and Metabolic Research at the Medical College of Wisconsin.

Olivier’s research has been published in high-profile journals such as Nature, Science and the Proceedings of the National Academy of Sciences.

A major research effort of Olivier’s that already includes collaborations with John Blangero, Ph.D., and other scientists at Texas Biomed analyzes the metabolic syndrome in humans, a disorder characterized by obesity, insulin resistance, dyslipidemia and hypertension. Olivier is using both family-based, genome-wide analysis and candidate gene studies to explain the genetic alterations affecting lipid metabolism, plasma lipid levels and disease manifestations of these abnormalities, such as abdominal obesity and non-alcoholic fatty liver disease. Additional studies are examining changes in protein composition in cells and tissues from affected individuals to understand how these changes affect disease risk and progression and how the genetic alterations are linked to actual functional abnormalities.

Ruth Ruprecht, a pioneer in AIDS-related research and vaccines, and in breast cancer, is appointed to virology position at Texas Biomed

Ruth M. Ruprecht, M.D., Ph.D., a professor of medicine at Harvard Medical School and the Dana-Farber Cancer Institute in Boston, has been appointed to the position of Scientist and Director of the AIDS Research Program in the Department of Virology and Immunology at the Texas Biomedical Research Institute.

“We are thrilled that she will be joining us,” said Jean L. Patterson, Ph.D., chair of the Department of Virology and Immunology.

“Dr. Ruprecht is a pioneer in developing novel and creative strategies for a vaccine against AIDS, and for preventing mother-to-child transmission of HIV,” said John VandeBerg, Ph.D., Texas Biomed’s chief scientific officer. “She has established monkey models for pursuing these research initiatives, and she will continue to use those models after she moves here to the Department of Virology and Immunology and the Southwest National Primate Research Center.”

Ruprecht directs a multi-institutional AIDS research program that involves collaborators in the United States, Europe, and Africa. Her expertise is in AIDS vaccine development and in diseases caused by so-called ‘slow’ viruses because they can remain inactive for several years. She is scheduled to

start at Texas Biomed sometime in August.

She has served as consultant for the World Health Organization and the China Comprehensive International Program for Research



Ruth Ruprecht M.D. Ph.D.

on AIDS, as a member of the National Institute of Allergy and Infectious Diseases (NIAID) AIDS Research Advisory Committee and the NIAID Council, and as the US Chair of the US-Japan AIDS Panel. She is a member of several scientific advisory boards, including the National Cancer Institute’s Vaccine Branch and the China Centers for Disease Control.

“We have discovered a new mechanism by which certain antibodies can prevent AIDS virus infection in monkeys,” Ruprecht said. “Joining Texas Biomed gives my group a wonderful opportunity to collaborate closely with experts

in primate medicine at the Southwest National Primate Research Center. Together, we can really accelerate progress.”

After studying chemistry at the University of Zurich, Switzerland, Ruprecht received a Ph.D. in human genetics from Columbia University in New York, and an M.D. from the University of Miami School of Medicine. She completed training in internal medicine at UCLA and in hematology/oncology at the Memorial Sloan-Kettering Cancer Center in New York. In 1984, she joined the Dana-Farber Cancer Institute and Harvard Medical School in Boston. In 2001, she received an Honorary Professorship from the Institute of Medical Biology, Chinese Academy of Medical Sciences, Peking Union Medical College, in Kunming in the People’s Republic of China.

Ruprecht’s research has been published in many high profile journals, including *Science*, *Nature*, *Nature Medicine* and the *Proceedings of the National Academy of Sciences*.

In addition to her position at Texas Biomed, Ruprecht also will establish a laboratory in breast cancer research at UT Health Science Center San Antonio.

Mexican American Youth Show Signs of Metabolic Syndrome: Early Screening Critical to Reduce Risk of Future Diabetes, Heart Disease

Mexican American children are experiencing substantial burdens of obesity, pre-diabetes, and other health problems which historically would have been expected to develop much later in life. The findings of a new study by Texas Biomed scientists argue for early screening and intervention to delay or avoid chronic health problems as these children age.

Directed by Texas Biomed scientist Ravindranath Duggirala, Ph.D., in collaboration with scientists from UT Health Science Center at San Antonio and other institutions, the results of the study were published online in the journal *Human Genetics*. The research was funded primarily by the National Institute of Child Health and Human Development, a division of the National Institutes of Health (NIH).

Metabolic syndrome is a cluster of early warning signs for diabetes, heart disease, and other major medical problems. These warning signs include increased accumulation of fat around the waist and in the blood, as well as elevated blood pressure and blood sugar, and high insulin levels. An estimated 2.5 million adolescents in the US have metabolic syndrome, with minority groups such as Mexican Americans being particularly vulnerable.

“Much attention has been devoted to environmental and lifestyle contributors to obesity,”
– Ravindranath Duggirala, Ph.D.

This new study examined 670 non-diabetic boys and girls, between the ages of 6 and 17 years, from pre-

dominantly lower-income extended Mexican American families, many of whose adult members have increased risk of diabetes. The study found that nearly 53 percent of the children were overweight or obese, and 13 percent had pre-diabetes. Overall, 19 percent – almost 1 in 5 – of the young people exhibited metabolic syndrome. The prevalence of metabolic syndrome rose dramatically with increasing obesity, and among 65 severely obese young people in the study, over two-thirds had already developed the condition.

The young study participants were all enrolled in the San Antonio Family Assessment of Metabolic Risk Indicators in Youth (SAFARI) study, and went to the Texas Diabetes

Institute for the clinic examinations associated with the project. Because all the children belonged to families whose adult members had previously participated in genetic studies led by Texas Biomed, the researchers were able to draw upon extensive family information to identify strong evidence of heritability for the metabolic syndrome and its related traits.



Ravindranath Duggirala, Ph.D.

The ultimate goal of SAFARI investigators' efforts is to find better ways to prevent or delay disease. “Much attention has been devoted to environmental and lifestyle contributors to obesity,” said Texas Biomed geneticist and SAFARI Principal Investigator Ravindranath Duggirala, Ph.D. “But these data provide insights into the complex genetic architecture underlying risk for metabolic disease in these children. Insights gained through a genetic approach may help to tailor effective dietary, physical-activity and other interventions for high-risk young people.”

“SAFARI data suggest that if risk-factor screening of high-risk children could be performed by age six, it could provide an opportunity for interventions which might delay or prevent their developing debilitating health conditions later in life,” said lead author Sharon Fowler, M.P.H., of the Health Science Center.

“For parents and primary care physicians, it's a good motivating factor to intervene early if you discover that your child is at greater-than-average risk of developing diabetes or cardiovascular disease at an early age,” said Daniel Hale, M.D., chief of the Division of Pediatric Endocrinology and Diabetes in the Department of Pediatrics at the Health Science Center and medical director of the SAFARI study.

Duggirala and other SAFARI investigators are currently conducting further genetic testing to determine which specific genes directly influence disease-related risk factors in these children. Their long-term goal is to develop family-based lifestyle interventions for SAFARI participants who are at greatest risk, in an effort to prevent the development of future serious health problems in these young people.



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