



Forum in Focus

WINTER 2019

President's Letter

Dear Forum Members,

After the holiday hustle and bustle, January seems without fail to sneak up on me. But as always, it greets us with the promise of a new year and new opportunities. Whether you were exploring European Christmas markets, chasing your children down ski slopes, with family at the ranch or surrounded by those you love at home, may the holiday season have left you feeling renewed and reflective about your own goals for 2019. I am always reminded at this time of year of a quote by Eleanor Roosevelt, "Happiness is not a goal... it's a by-product of a life well lived." Here's to living life to its fullest and all it encompasses for each of you.

Looking back, the Forum's Fall calendar was filled with exciting events. Our Fall Lecture Luncheon was a direct reflection of our unofficial mantra, "Women Supporting Science and Each Other" at which Dr. Joanne Turner, a previous Forum Grant recipient, discussed her career and professional goals. **Amy Swaney** and **Nicole McClane** executed an event that was a true conversation starter.

That evening around my own dinner table, I was discussing Dr. Turner's message and story with my thirteen year old daughter, Mary-Katherine. Later that night, long after I thought she was in bed, I found MK glued to her computer screen, and just as I was about to threaten to throw all electronics in our house away, I realized she was reading the Texas Biomed website.

Our dinnertime conversation had piqued her interest about this scientist, a British powerhouse of a woman (who happened to grow up very close to where my daughter was born in Cambridge, England) who was now doing great things in San Antonio and speaking at The Argyle. MK wanted to know more. I was struck by the power of one - one word, one encounter, one dinner conversation - on an otherwise typical Wednesday night. Dr. Turner's story not only inspired the Forum members that day, but also so many others at Texas Biomed and within her field.



Jody Lutz

And maybe most importantly, she's inspiring the next generation of scientists. It truly was another example of "what starts at the Forum plants the seed to change the world." We are excited to see what Dr. Turner accomplishes in the future both in and out of the laboratory.

Speaking of the next generation of scientists, please take a moment to read former Forum Trustee **Jodi Wood's** son Michael's article regarding the Saint Mary's Hall student tour at the Texas Biomed campus. His future is bright, and we are thrilled that Michael and his SMH classmates had such a successful campus tour. The staff at Texas Biomed was equally as impressed by this inquisitive and engaging group of young scholars. Kudos to **Amy Maverick** and **Mary Labatt's** continued work to facilitate our student tours. They are truly a gift to our local high schools and their science classes.

The Past President's Luncheon, graciously hosted by Texas Biomed at The Argyle in November, was a time to reflect on our history while sharing our future goals with the women who have shaped this organization in so many ways. As Margaret Mead wrote, "Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has." To our esteemed Past Presidents, you have truly embodied that statement. We are grateful to you all for the roles you have played and the support you continue to provide to The Forum. Your impact has been felt far and wide!

Our revamped "Cocktails with Scientists" was also a resounding success. A packed house enjoyed the new format of "speed science" whereby attendees shifted around the room for the opportunity to speak with multiple world-renowned Texas Biomed Scientists in one night. It was an evening filled with lively conversations and meaningful learning. We are looking forward to continuing this new twist on an old favorite.

Continued on next page.

The success of the fall created great momentum for The Forum as we head into our spring events. Looking ahead... **Emilie Petty** and **Mallory Moorman** have been crafting our upcoming “Cheers to Chairity” event into another showstopper. This is your chance to own a beautiful piece of Argyle history while supporting The Forum - a win-win! Mark your calendars for February 27!

Our super star Gala Team of **Whitney Solcher Miller**, **Cynthia Kerby** and **Whitney Schones** continue to shape “The Night They Invented Champagne” into something absolutely spectacular. If you have not yet made your Gala plans for May 4, there are still opportunities to be involved by attending the after party or making a 100% tax deductible Gala Grant donation. Contact the Gala Team directly at Forum.Gala@txbiomed.org for additional information or visit our website at <https://forum.txbiomed.org/forum-gala>. #BubblesForBioMed #ForumGala2019

On my last business trip of 2018, I had a moment to reflect on the nature of “the city that never sleeps” and how that so closely resembles the activity of The Forum. Throughout the holidays, in between parties and school programs, family gatherings and general festiveness, our Trustees quietly toiled away. **Brooke Meabon** and **Audra Kerr** have been working diligently on Gala financials, **Corinna Richter** is working closely with Texas Biomed

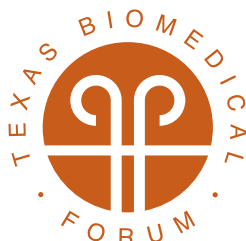
staff on gala grant opportunities, **Courtney Percy** is leading our nominating committee, and **Heather De Rojas** and **Christina Ketabchi’s** Science Education Awards efforts are ongoing. **Rebecca Nathan** and **Lauren Peppings** have paid careful attention to detail preparing this newsletter and **Courtney Archer** and **Kelly Wade Fry** have been finalizing the latest edition of our membership directory. It is a team effort, and there is no doubt that this is a dream team of dedicated and talented women.

I am continually humbled by the work ethic and camaraderie of The Forum. We are collectively engaged to uphold our long standing mission to support Texas Biomed in both volunteerism and fundraising. Our members remain the backbone of our organization, and we are thankful for each and every one of you.

Cheers to Texas Biomed, to The Forum, to 2019 and to all the promise that the future holds. Working together, there is no doubt that the best is yet to come!

Jody Lutz

President 2018-2019
Texas Biomedical Forum
Forum.President@TexasBioMed.org



SCIENCE EDUCATION AWARDS

SAVE THE DATE

WEDNESDAY MARCH 6, 2019

The Science Education awards are quickly approaching! Please save the date for the awards, which will be given out at the Spring Lecture Luncheon at The Argyle, on Wednesday, March 6, 2019.

Local public and private high school science teachers are encouraged to apply for the awards. The purpose of the Science Education Awards is to assist the winners with teaching materials for science programs. The Texas Biomedical Forum and the VH McNutt Memorial Foundation award up to \$20,000 to the applicants who demonstrate the strongest commitment to the scientific process and the further development of progressive science education programs!

The application and all of the criteria can be found on our webpage at forum.txbiomed.org. Applications for consideration this year were due February 1, but please encourage high school science teachers you know to apply next year.

FORUM GRANTS

For more than 40 years, Forum Grants, in partnership with the Forum Gala, have contributed to monies raised for the scientists’ pilot study funds.

A pilot study, pilot project or pilot experiment is a small scale preliminary study conducted in order to evaluate feasibility, time, cost, adverse events, and effect size in an attempt to predict an appropriate sample size and improve upon the study design prior to performance of a full scale research project.

These grants are sometimes known as “seed grants” because they are relatively small but the ideas they power can grow to become huge in impact.

Over the last sixteen years, the fundraising efforts of the Forum have amounted to \$3 million in pilot grant funding. This funding allowed researchers to apply for additional grant monies amounting to \$60 million in subsequent awards... a 30-fold return!

Please consider supporting the Forum Grants efforts by making a donation today and contacting our Forum Grants Chair, Corinna Richter, at Forum.GalaGrants@TxBioMed.org.

Associate Scientist Melanie Carless, Ph.D. is one such recipient of a seed grant. She was then awarded \$3 Million from the National Institutes of Health based on the work she accomplished with her Forum Grant.

We hope you will join our efforts to fundraise for Forum Grants in the following ways:

- ✓ Make a fully deductible Forum Grant donation, 100% of which will go directly to scientists’ pilot studies. Donations can be made online at <https://forum.txbiomed.org/forum-grants/donate/> or by mail to: **Texas Biomedical Forum
PO Box 6648
San Antonio, TX 78209**
- ✓ Recommend individuals, foundations, and corporations that may be interested in contributing. We will happily contact them.
- ✓ Help spread the word about this important fundraising initiative that supports research at Texas Biomedical Research Institute.

Proceeds from the Forum Gala in May also support Forum Grants. For more information, please contact Corinna Richter, Forum Grants Chair, at Forum.GalaGrants@txbiomed.org.

TEXAS BIOMED SCIENTISTS TARGETING FACTORS INVOLVED IN HISPANIC CHILDHOOD OBESITY

\$3 Million National Institutes of Health Grant

Are there changes that affect genes and fuel a person’s propensity to develop obesity? That’s a question under study at Texas Biomedical Research Institute. Associate Scientist Melanie Carless, Ph.D., is Principal Investigator of a \$3 million, four-year grant from the National Institute of Diabetes, Digestive and Kidney Diseases to research this hypothesis. Dr. Carless’ early research in this field was funded by a Texas Biomedical Forum pilot study grant.

The Centers for Disease Control calls U.S. obesity an “epidemic,” with 40% of adults and 19% of children considered obese. Within children, however, there are disparities among ethnicities. Hispanic children have the highest rate of obesity at 26% compared to African American (22%), Caucasian (14%), and Asian (11%) children.

Dr. Carless and her collaborators will be studying an area of research called epigenetics – which describes changes to our DNA, RNA, or proteins that are affected by both the environment and genetic makeup and that regulate gene and protein expression. Her team will be examining a specific area of epigenetics, DNA methylation, which is capable of switching genes on and off.

“I think it’s really important,” Carless explained. “Obesity can be a huge factor in serious medical problems including diabetes, high blood pressure, atherosclerosis, and heart disease. We need to understand how obesity develops at a young age and the impact this might have on health later in life. If we can start to reduce the rates of obesity in the U.S., we will start to see a decline in multiple other disorders.”



Corbett Christie, Cheryl Myers (President, 1998-1999),
Lisa Blonkvist (President, 2002-2003)



Whitney Schones (Forum Trustee),
Jody Lutz (President, 2018-2019).

Past Presidents' Luncheon

On a beautiful fall day, a group of women bound to a common cause gathered to celebrate their shared history and accomplishments. Our Past Presidents' Luncheon was a time to reflect on the past with an eye on the future. Texas Biomed generously hosted the lovely event at The Argyle and the women assembled represented every decade of the Forum's existence.

As this year's President, I had an opportunity to provide a "State of the Forum" address and answer questions regarding where we are (a resoundingly good place, I assure you) as well as how we are adapting to fit the needs of the organization in the future while maximizing our impact with our Forum grants. Dr. Schlesinger then presented a "State of the Institute" outlining his vision and the Institute's master plan for dynamic growth, ground breaking science and all that is ahead at Texas Biomed. It is an exciting time and we are fortunate as Forum members to have a front row seat to watch Dr. Schlesinger's plan take life over the course of the next few years.

We toasted the future and all of our guests left with a small bottle of champagne, a nod to this year's Forum Gala theme, "The Night They Invented Champagne."

There were plenty of hugs and memories shared and as always we are grateful for the contributions of our outstanding past presidents and the support they continue to provide our organization.

Jody Lutz
2018-2019 Forum President



Elizabeth Cox (Forum Trustee), Corbett Christie,
Melissa Morgan (President, 2014-2015)



Jane McFarlane (President, 1977-1978),
Judy Cavender (President, 1976-1977),
Barbara Schneider Rattan (President, 1994-1995)

Cocktails with Scientists



The Texas Biomed supporters who attended our "Cocktails with Scientists" event at The Argyle on November 15 were treated to a casual evening of one-on-one conversations with some of the Institute's researchers. Seven of Texas Biomedical Institute's brilliant scientists who are changing the world with their research talked about their work. We appreciate Dr. Tim Anderson, Dr. Smita Kulkarni, Dr. Eusondia Arnett, Dr. Raul Bastarrachea, Dr. Kendra Alfson, Dr. Melanie Carless and Dr. Christopher Chen who discussed Texas Biomed's efforts to combat infectious diseases - including tuberculosis, HIV, Ebola, and malaria.

FALL LECTURE LUNCHEON



On November 7, Texas Biomedical Forum's Fall Lecture Luncheon featured Dr. Joanne Turner, Vice President for Research of Texas Biomedical Institute. Dr. Turner presented on Empowering Women in Science.

"Women in leadership, in general and not just in science, results in a good balance of ideas that accurately represent all institute employees and the community. It leads to more creativity and diversity of thought. It often leads to more collaborative decision making," she said. "Most importantly, it shows the next generation of women that they can be included at the leadership table and that it is not a place reserved for men."

She truly is a champion for women in science.

Thank you, TRES Events, for underwriting the beautiful floral arrangements; your talent and creativity never cease to amaze us. The arrangements were the perfect way to honor Dr. Joanne Turner's English roots.



SPRING LECTURE LUNCHEON AND THE 25TH ANNUAL SCIENCE EDUCATION AWARDS

SAVE THE DATE

Wednesday March 6, 2019 - The Argyle

Lecture Guest Speaker: **Larry S. Schlesinger, M.D.**
President and CEO, Texas Biomedical Research Institute

**"You, Your Loved Ones and Infection -
The Impact of Infection on Our Daily Lives"**

The Science Education awards are quickly approaching! Please save the date for the awards, which will be given out at the Spring Lecture Luncheon on Wednesday, March 6, 2019.

Local public and private high school science teachers are encouraged to apply for the awards. The purpose of the Science Education Awards is to assist the winners with teaching materials for science programs. The Texas Biomedical Forum and the V.H. McNutt Memorial Foundation award up to \$20,000 to the applicants who demonstrate the strongest commitment to the scientific process and the further development of progressive science education programs!

The application and all of the criteria can be found on our webpage at forum.txbiomed.org. Applications for consideration this year were due February 1, but please encourage high school science teachers you know to apply next year.

10:00 a.m. Board Meeting (All Forum members are welcome to attend)

11:00 a.m. Awards Presentation & Lecture

12:00 p.m. Lunch

Reserve online at <https://forum.txbiomed.org/events/lecture-luncheons/spring-lecture-luncheon/>

FORUM GALA 2019

Saturday, May 4, 2019

"The Night They Invented Champagne"

Plans are well under way for the most sought-after and "fun" fundraiser of the year! The 2019 Texas Biomedical Forum Gala is just around the corner, and while the Kentucky Derby claims the first Saturday in May as their day, the excitement of the Gala will last much longer than two minutes! Your Gala Chair, Whitney Solcher Miller; Gala Co-Chair, Cynthia Kerby; and Gala Assistant, Whitney Schones, have been hard at work re-creating a classic Belle Epoque Parisian soiree and want to especially thank our generous "Grand Cru" Presenting Sponsor, Valero, for making this possible.

Many wonderful surprises await our guests, including mini portraits by San Antonio's own Franco Modini-Ruiz, as well as a Silent Auction and Raffle filled with fantastic items to please any pallet. Bid high, and bid often!

We are also excited to announce that the Gala is completely sold out! But do not fear, the Forum Gala continues well on into the night with our famous After-Party, "An Evening at Maxim's" with special live entertainment by Jazz Texas' "Doc Watkins and His Orchestra" - generously underwritten by Donna and Ted Welsh.



The After-Party runs from 9:00 p.m. until midnight, and tickets are available online for \$200 per person. We want to honor the profound legacy of Tom Slick and his legendary vision, and will therefore be offering members of his sister organizations, Mind Science Foundation and Founder's Council, discounted tickets at \$150 per person.

If you are unable to attend the Gala, we ask you to consider making a Forum Grant donation, which is a wonderful way to support the great life-changing work of Texas Biomed.

All ticket sales and grants can be purchased at:

<https://forum.txbiomed.org/forum-gala/the-forum-gala-table-purchase/>

We look forward to seeing you in May for lots of Bubbles and Biomed!

Please feel free to join the Forum Gala waiting list, as many people's plans change at the last minute, and we occasionally have tables generously donated back.

Email us at:
Forum.Gala@txbiomed.org



STUDENT TOURS ARE UNDERWAY

Student tours, co-hosted by Texas Biomedical Forum and Texas Biomedical Research Institute, are in full swing, having already hosted six local high schools this school year. The tours are a great opportunity for area high school science students to learn from Texas Biomedical scientists and to see first hand the Southwest National Primate Research Center. Dr. Jamie Holbrook, AP Biology Teacher at Saint Mary's Hall, had this to say about the tour:

"The Texas Biomedical Institute Tour provided my students with a first hand look at exciting, cutting edge research on infectious diseases from top scientists in their field of study. This was a one of a kind, authentic experience that they couldn't get anywhere else, especially not from a textbook or classroom. It aligned perfectly with my course curriculum and three months later we are still talking about the amazing things that we saw and heard. This enriching and inspiring tour was the highlight of our year and provided relevance and real life connections to our course of study."

Student tour co-chairs, **Mary Labatt** and **Amy Maverick**, are already working on the tour schedule for next year. Please email Forum.Outreach@txbiomed.org if you know a school that would like to participate.



A STUDENT'S REFLECTION ON HIS SCHOOL TOUR

By **Michael Wood**

Senior at Saint Mary's Hall

In October, AP Biology students from Saint Mary's Hall visited the Texas Biomedical Research Institute. The Vice President gave us a background on the history of the program and its goals. We were then introduced to two research scientists working at the institute who gave presentations about their research focus and goal. As the scientists described their research, students were captivated by the intriguing ideas and investigations that they were conducting, and being able to see real applications of what we have learned in class was exciting.

Saint Mary's Hall senior Matt Leonard commented that "being able to visit the Texas Biomedical Research Institute opened our eyes to just how much work scientists put into finding the cures for the world's most devastating and complex diseases. Texas Biomed inspired many students to consider a career in biomedical research."

At the Institute, groundbreaking research that has the potential to significantly impact our world is conducted every day, including development of vaccines and treatments for HIV and study of infectious diseases. My mother is a past Forum Trustee and Board Member, so this institution has always been very important to my family. Touring the facility allowed me to understand the reason behind my parents' devotion of time and resources to this amazing place. As an aspiring biomedical engineer, meeting scientists and seeing the work that is being done at the Institute was greatly inspiring. Touring the Institute excited me and allowed me to better understand the importance of increased research. As I hope to enter a career as a biomedical engineer and researcher focused on autoimmune diseases inspired by my own experiences with psoriatic arthritis, I am thrilled to have such a remarkable facility in my hometown.



Michael Wood and his mother Jodi Wood, a Past Forum Trustee

CHEERS TO CHAIRITY 2019

Get excited for the second Cheers to CHAIRity event at The Argyle on Wednesday, February 27, from 5-7 p.m. Mallory Moorman and Emilie Petty are in charge of the exciting evening during which we will be auctioning off iconic Argyle chairs. Proceeds from this event will directly benefit Texas Biomed.

We would like to extend a very special thank you to the fabulous designers who have graciously donated their time and talent to refurbish these chairs for auction.

Shelby Ames
Debbie Baxter
Maria Beck
Bonnie Chumbley
Carolyn Gnam
Kate Kingman
Raven Labatt
Mary McNelis
Melissa Morgan
Casey Roy
Whitney Schones
Kim Spradlin



We will also have available to purchase the original chairs that you can redesign on your own or enlist the talent of one of the featured designers.

Last year's event generated approximately \$20,000 and we look forward to another successful evening of Chairity. We are thrilled to offer a piece of The Argyle for you to cherish in your own home and are also very grateful to The Argyle for thinking of us when looking for a new home for these chairs.



TEXAS BIOMED UPDATES

A NOTE TO TEXAS BIOMEDICAL FORUM MEMBERS FROM DR. LARRY SCHLESINGER ...



Dr. Larry Schlesinger

Dr. Jonas Salk, the developer of the polio vaccine, which ended one of the last century's most devastating infectious diseases, once said:

"Hope lies in dreams, in imagination, and in the courage of those who dare to make dreams into reality."

As a member of the Texas Biomedical Forum you are supporting key pilot studies

in the laboratories of the imaginative Texas Biomed scientists who dare to ask scientific questions that may be tomorrow's breakthrough.

When it was founded just a few decades ago, Forum founders knew it would be private citizens' support through the Texas Biomedical Forum who could provide the margin for excellence. Today, the impact of the Forum is profound. Since the pilot study program was initiated, \$3 million has been awarded to Texas Biomed scientists and has yielded more than \$73 million in major research funding. It takes courage to fund pilot studies for ideas that are not yet proven – but I insist it helps make Texas Biomed a major source of medical breakthroughs.

Your support of the Texas Biomedical Forum brings hope that our dreams of a healthier future can become reality.

MARMOSETS SERVE AS AN EFFECTIVE MODEL FOR NON-MOTOR SYMPTOMS OF PARKINSON'S DISEASE

Small, New World monkeys called marmosets can mimic the sleep disturbances, changes in circadian rhythm, and cognitive impairment people with Parkinson's disease develop, according to a new study by scientists at Texas Biomedical Research Institute.

By developing an effective animal model that can emulate both the motor and non-motor symptoms of Parkinson's disease, scientists have a better chance of understanding the molecular mechanisms of the neuro-circuitry responsible for changes in the brain during the course of the disease. Scans like magnetic resonance

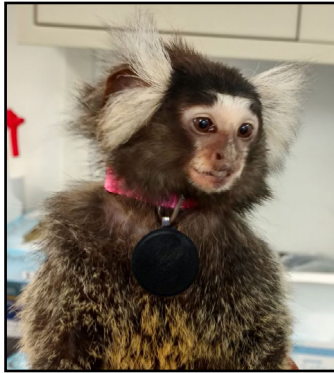
imaging (MRIs) and analysis after dissections may lead to potential targets for new therapies for patients.

Associate Scientist Marcel Daadi, Ph.D., leader of the Regenerative Medicine and Aging Unit at the Southwest National Primate Research Center on the Texas Biomed campus, is the lead author of the study that tracked marmosets using devices around their necks similar to Fitbits humans use to track their activity and sleep. The study was published in a recent edition of the journal PLOS ONE. In the case of the tiny monkeys, investigators wanted to see if the marmosets with induced classic Parkinson's motor symptoms – like tremors – could also serve as an effective model for non-motor symptoms. In addition, scientists videotaped the animals to monitor their ability to perform certain tasks and how those abilities were impacted over time by the disease.

"Most of the early studies in Parkinson's have been conducted with rodents," Dr. Daadi explained, "but there are some complex aspects of this disease you simply cannot investigate using rodents in a way that is relevant to human patients. Nonhuman primates are critical in his aspect because we can see these symptoms clearly whether it is the dyskinesia (abnormality or impairment of voluntary movements), or the sleep disturbances that you can monitor or the fine motors skills."

PEERING INTO BABOON BRAINS TO HELP FIND NEW TREATMENTS FOR MENTAL ILLNESS

The brain is a marvelous mystery, one of the great frontiers of modern medicine. When the brain and all of its subtleties are functioning normally, it's an amazingly efficient control center. But for people suffering from neuropsychiatric disorders, the anxiety, depression, manic mood swings or memory loss can be devastating. Less than 10 percent of



Marmoset in the study were fitted with Fitbit-like devices.

therapies that work in current animal models make it all the way to humans.

The critical need for better therapies is the reason scientists at Texas Biomedical Research Institute are working on new ways to understand human brains – by learning more about the brains of non-human primates, specifically baboons.

Hundreds of baboons are part of a colony at the Southwest National Primate Research Center on the Texas Biomed campus. Their size and their genetic similarity to people make them a good animal model for all kinds of scientific comparisons. Scientist Dr. Melanie Carless is the principal investigator.

"The baboon brain's probably one of the most similar brains to humans in terms of the gyrification or the folding of the brain, also in terms of the different structures and regions within the brain that might correlate to neuropsychiatric disorders," explained principal investigator Melanie Carless, Ph.D.

A grant from the National Institutes of Health is funding a two-year study to provide evidence for the use of baboons as a preclinical model for neuropsychiatric diseases. The idea is to determine a biomarker signature of structural variations in the brains of baboons. Those variations may correlate to conditions.

In order to peer into the baboon brains, Texas Biomed is teaming up with the Research Imaging Institute at the University of Texas Health Science Center at San Antonio. Male and female baboons of different ages are scanned in a magnetic resonance imaging machine.

Incredibly precise MRI images give researchers a detailed look at the structure, size and blood flow in different areas of the brain. Those results will be compared to biomarkers in the animal's bloodstream.

"We're trying to identify biomarkers, so peripheral biomarkers that might reflect changes in structural or functional variations within the brain," Carless said. "We're looking at something called microRNAs. And these are very small RNA molecules that regulate a very large portion of the genome and of the proteins that are made from the genes. And so by trying to identify microRNAs that might be present in the blood or in the plasma and seeing if they also correlate or they're associated with variations in the brain, that can start to give us a clue into whether these microRNAs might be biomarkers not only of brain structure and function but also of psychiatric diseases."

The data collected from more than 30 animals over two years will likely lend insight into what has been an elusive medical issue: finding effective medications for patients.

Dr. Carless says this work is important since one in five Americans suffers from some degree of mental illness. "This is something I'm passionate about really because when we look at psychiatric diseases, they're very common," Carless commented. "They can be very devastating. And they affect a large portion of the population."

By developing a better model for these complex diseases, the idea is to speed up clinical trial successes and get better therapies to the people who so desperately need them.

TEXAS BIOMED SCIENTISTS RESEARCH EBOLA-MALARIA CONNECTION



Olena Shtanko, Ph.D.

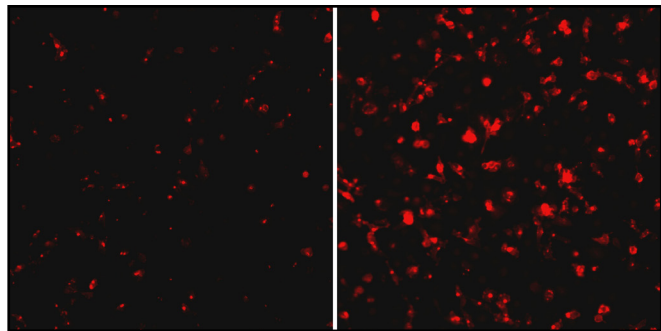
Ebola virus is a continuing threat in Central and West Africa, with an outbreak currently taking place in the Democratic Republic of Congo. The factors that determine who is susceptible to Ebola infection and who is not are still a mystery.

Texas Biomed researchers – in collaboration with the University of Iowa – are trying to find out how malarial infections impact people exposed to Ebola virus. Both diseases are endemic in that region.

"It has been postulated for some time now that malaria and Ebola virus co-infection has an effect on the outcome of Ebola virus disease," Staff Scientist Olena Shtanko, Ph.D., said. "This is a really fascinating study which started in our lab this month."

As part of a National Institutes of Health grant, Dr. Shtanko will be taking malaria-infected mice into the Biosafety Level 4 (BSL4) laboratory and challenging them with Ebola virus. The BSL4 lab is the highest safety rating for a biocontainment laboratory in order to house infectious agents for which there is no vaccine or cure.

The hypothesis of the Ebola-malaria connection under testing is that people with an acute (active and recent) malarial infection, where the immune response of the body is already ramped up, have a greater chance of surviving filovirus infection. If people have been infected with malaria but the infection is chronic, then they are more susceptible to Ebola.



Ebola Virus Protein Impact photos

Knowing if this assertion is true might change how doctors design therapies for Ebola virus disease in areas where both diseases are present, perhaps paving the way for more tailored therapeutics. “It’s an area that needs to be addressed,” Shtanko stressed.

Texas Biomed’s part in the “Mechanisms and consequences of Plasmodium/Ebola virus co-infections” study will be taking place over two years. The next step may involve testing in a higher-level animal model, such as nonhuman primates.

Dr. Robert Davey received this grant while at Texas Biomed and has since moved his lab, transferring this project to Dr. Shtanko. Dr. Shtanko has expressed enthusiasm for the project and looks forward to conducting the study. This grant #R21 AI139902 was issued by The National Institutes of Health National Institute of Allergy and Infectious Diseases investigators of the University of Iowa. Texas Biomed is a subcontractor.

TEXAS BIOMED SCIENTISTS TARGETING FACTORS INVOLVED IN HISPANIC CHILDHOOD OBESITY



**Associate Professor
Melanie Carless, Ph.D.**

Are there changes that affect genes and fuel a person’s propensity to develop obesity? That’s a question under study at Texas Biomedical Research Institute. Associate Scientist Melanie Carless, Ph.D., is Principal Investigator of a \$3 million, four-year grant from the National Institute of Diabetes, Digestive and Kidney Diseases to research this hypothesis.

The Centers for Disease Control calls U.S. obesity an “epidemic,” with 40% of adults and 19% of children considered obese. Within children, however, there are

disparities among ethnicities. Hispanic children have the highest rate of obesity at 26% compared to African American (22%), Caucasian (14%), and Asian (11%) children.

Dr. Carless and her collaborators will be studying an area of research called epigenetics – which describes changes to our DNA, RNA, or proteins that are affected by both the environment and genetic makeup and that regulate gene and protein expression. Her team will be examining a specific area of epigenetics, DNA methylation, which is capable of switching genes on and off.

The first part of the study involves a group of 900 Texas Hispanic children who have a high propensity for obesity. Scientists will combine physical data like caloric intake, physical activity, energy expenditure, metabolic rate and glucose levels with another factor measured in a blood sample called DNA methylation. Methylation is a biochemical process where methyl groups are added to DNA in a way that changes the expression of certain genes, and often the production of proteins. They will test whether methylation of specific genes is related to the physical data collected to increase risk for obesity.

In the second phase of the study, scientists will compare changes in blood with changes in muscle tissue and muscle cells and see how these changes correlate. Using blood samples, scientists will induce pluripotent stem cells (or master cells) which can be directed to develop into skeletal muscle cells for experimentation.

Part three of the study involves the use of CRISPR (a new technology to alter DNA sequences and modify gene function) to go into cells and change the methylation levels at specific sites to see what impact that has on the cells and how they might utilize energy. That information could lead to more targeted drug therapies for obesity, or someday, editing to correct an underlying issue at the DNA level.

“I think it’s really important,” Carless explained. “Obesity can be a huge factor in serious medical problems including diabetes, high blood pressure, atherosclerosis, and heart disease. We need to understand how obesity develops at a young age and the impact this might have on health later in life. If we can start to reduce the rates of obesity in the U.S., we will start to see a decline in multiple other disorders.”

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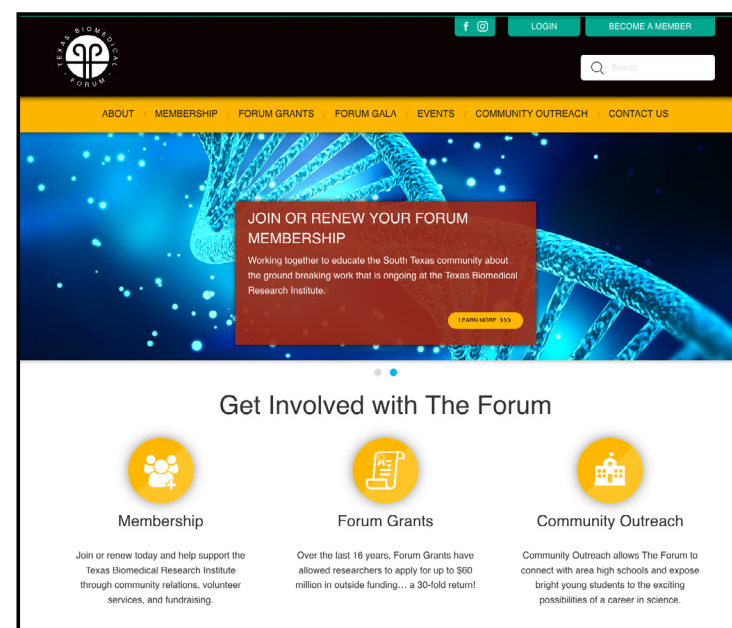


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texas-biomedical-forum](http://www.linkedin.com/company/texas-biomedical-forum)

UPDATE YOUR ADDRESS BOOKS: NEW FORUM EMAIL ADDRESSES

As a reminder, the Forum has new email addresses! Please update your address books accordingly. The new email addresses will allow Trustees to communicate in a more professional and consistent way. Additionally, they will streamline communication for current and future Trustees. Please use the following email addresses when communicating with these committees:

President:	Forum.President@txbiomed.org
Treasurer:	Forum.Treasurer@txbiomed.org
VP Membership:	Forum.Membership@txbiomed.org
Public Relations:	Forum.PR@txbiomed.org
Special Events:	Forum.SpecialEvents@txbiomed.org
Student Tours and Science Education Awards:	Forum.Outreach@txbiomed.org
Gala Main Account:	Forum.Gala@txbiomed.org
Gala Table Sales:	Forum.GalaTableSales@txbiomed.org
Gala Grants:	Forum.GalaGrants@txbiomed.org
Gala Treasurer:	Forum.GalaTreasurer@txbiomed.org



VISIT OUR NEW TEXAS BIOMED FORUM WEBSITE!

We are delighted to share with you our new website and invite you to visit <https://forum.txbiomed.org>. It’s here you’ll be able to stay connected with all social, community and fundraising activities of the Forum, as well as to learn more about Texas Biomed. Additionally, our new website allows visitors to access up to date information on Gala and other special events, renew membership, purchase lecture luncheon tickets and much more. We are updating content frequently, so please check in often.

A Call for Forum Photos from Years Past

As excitement builds for this year's gala, we're asking that Forum members and friends please submit your favorite photos from Forum Galas and other events from previous years. We will share them on our social media channels as we celebrate our past while looking enthusiastically toward our future.

Please send pictures to Forum.PR@txbiomed.org and include names of those pictured, if desired.

FORUM GALA PAST THEMES AND CHAIRS

Under the creative direction of the following dedicated and talented chairs and their hard working committees, gala themes have taken guests all over the world.

2017-18 "Mariposa" Denise Mosser and Nicole McClane	2003-04 "Broadway Lights" Christy Gulley and Jill Rosenthal Assistant: Debbi Chesney	1988-89 "L'esprit de la Cote d'Azur" Laura Baucum and Bekki Kowalski
2016-17 "In Bloom" Ashley Weaver and Molly Drought Assistant: Amelita Mauzé	2002-03 "Laissez Les Bon Temps Roulez – An Evening in the French Quarter" Jennifer Sparr and Cathy Randall Assistant: Sandra Quirk	1987-88 "A Whala of a Gala at Seaworld" Dianne Azar and Claire Daviss
2015-16 "The Black and White Masquerade Ball" Sara Walker and Jody Lutz Assistant: Elizabeth Cox	2001-02 "The East India Trade Company" Prissy Kent and Sandra Wright	1986-87 "Bayou Blowout" Kathy Barnhart and Diane Smith
2014-15 "Fly Me To The Moon" Jordan Arriaga and Courtney Percy Assistant: Sara Walker	2000-01 "Southern Splendors" Susan Wise and Michelle Cadwallader	1985-86 "Gala Sixteen" Roxana Hayne and Sandra Rosenberg
2013-14 "La Dolce Vita" Daniela Serna and Ashley Solcher Hixon Assistant: Jordan Arriaga	1999-00 "Baboon Ball – Secrets of the Jungle" Trish Najim and Arden Specia Spencer Assistant: Sandra Wright	1984-85 "Mythical Mischief at the Forum" Frances Beauchamp and Martie Wood
2012-13 "La Gloria Havana" Melissa Morgan and Courtney Duphorne Assistant: Daniela Serna	1998-99 "Back to the Future – the Celebration of the Century" Hydie Sumner and Sherri Hernandez Assistant: Margie Klesse	1983-84 "An Evening in New York" Patricia Gordon and Sissy Tietz
2011-12 "Diwali: The Festival of Lights" Cathryn LeVrier and Raven Labatt Assistant: Courtney Duphorne	1997-98 "The Orient Express" Cari Hill and Linda Whitacre Assistant: Hydie Sumner	1982-83 "Gala in Sherwood Forest" Earl Fae Eldridge and Maxine Farrimond
2010-11 "A Shanghai Affair" Julie Zacher and Josie Flesher Assistant: Christy Meador	1996-97 "A Secret Garden" Maureen Mimari and Christie Fretthold Assistant: Esther Zorrilla	1981-82 "Hollywood Follies" Jane Benesch and Margie Rust
2009-10 "Esplendores de la Cultura Mexicana" Paola Lloyd and Mary Beth Mosbacker Assistant: Kathleen LeFlore	1995-96 "Around the World in Eighty Days" Gail Smith and Nancy Jackson Assistant: Kim Peacock	1980-81 "Sail Away to Fantasy Isle" Susan Mathews Loyd and Jane Yarbrough
2008-09 "Out of Africa" Suzanne Dabbous, M.D. and Karen Lee Zachry Assistant: Kimberly Archer	1994-95 "Under the Silver Moon" Walton Gregory and Caroline Walker Assistant: Jan Fischer	1979-80 "Reflections in a Balloon" Celeste Huck and Kathy Roberts
2007-08 "Beyond the Sea Gala" Anne Johnston and Anne Heaner Assistant: Kim Shepperd	1993-94 "Can't Stop the Music" Kathie Dennis and Rosina Zollino Assistant: Walton Gregory	1978-79 "Come With Me to the Cabash" Mary Benedum and Janet Pitluck
2006-07 "Mystical Living Gardens" Terry Gouger and Jean Mitchell Assistant: Julie Zacher	1992-93 "A Storybook Evening in the Black Forest" Beverly Purcell Guerra and Marla Morgan Assistant: Ginny Way	1977-78 "A Journey to Oz" Jean Bell and Peggy Mays
2005-06 "Run for the Roses" Estee Kellogg and Caroline Schupbach Assistant: Lisa Clingman	1991-92 "A Yankee Doodle Celebration – Fort Sam Houston Quadrangle" Jerilyn Blanchard and Jan Hill	1976-77 "An Evening at the Palace" Carlyn Felbaum and Carol McGinnis
2004-05 "Medieval Knight" Karen Heydenreich and Phyllis Viola Assistant: Jenny Gibson	1990-91 "Carnival in Rio" Betty LeFlore and Kay Mandigo	1975-76 "Un Bal Masquerade" Jane McFarlane and Jane Satel
	1989-90 "Gala Gay Nineties" Dru Pipkin and Mary Peñalosa	1974-75 "Sensational Circus Gala" Mary Alice Bond and Marianna Frost
		1973-74 "Gala on the Queen" Judy Cavender and Carolyn Fischer
		1972-73 "Mad Hatter's Ball" Neal Krause and Shawn Nelson
		1971-72 "Oriental Odyssey" Pat Bristol and Lois Yancy
		1970-71 "Fete Champetre" Dottie Block and Stevie Tucker

2018-2019 TEXAS BIOMEDICAL FORUM



2018-2019 EXECUTIVE BOARD

Top Row, Left to Right: Stephanie Dick, Cynthia Kerby, Emily Jones, Ashley Weaver, Whitney Miller

Bottom Row, Left to Right: Courtney Percy, Jody Lutz, Amy Swaney

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Amy Swaney
First Vice President,
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Second Vice President,
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Cynthia Kerby
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Second Row from the Top: Heather de Rojas, Corinna Richter, Lauren Pepping, Hayley Conger, Amy Maverick, Mary Labatt, Audra Kerr

Third Row from the Top: Sarah Trampota Conquest, Judy Schlesinger, Kelly Fry, Courtney Archer, Emilie Petty, Kim Johnson, Nicole McClane

Bottom Row, Left to Right: Stephanie Dick, Cynthia Kerby, Emily Jones, Courtney Percy, Jody Lutz, Amy Swaney, Ashley Weaver, Whitney Miller

Not Pictured: Karen Bryant, Elizabeth Cox, Mallory Moorman

Corinna Richter
Forum Grants

Whitney Schones
Gala Assistant

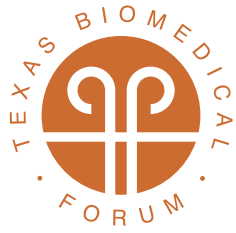
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SAVE THE DATE FOR ALL THE UPCOMING FORUM EVENTS

Details on each of these upcoming events are inside this newsletter!

Please visit our new website for more information:

<https://forum.txbiomed.org/events/forum-special-events/>

Cheers to CHAIRity Event.....February 27

<https://forum.txbiomed.org/events/forum-special-events/spring-special-event/>

**Spring Lecture Luncheon andMarch 6
Science Education Awards**

<https://forum.txbiomed.org/events/lecture-luncheons/spring-lecture-luncheon/>

GalaMay 4

<https://forum.txbiomed.org/forum-gala/>

Membership CampaignSummer

<https://forum.txbiomed.org/forum-membership/>