



# Forum in Focus

SPRING 2019



FORUM GALA

*“The Night They Invented Champagne”*

MAY 4, 2019

# President's Letter

Dear Forum Members,

I have to admit...this last President's letter was difficult to write. Not from a lack of achievement by this talented board or a loss of topics to cover, but because there is so much to say and as many things for which I'm thankful.

My grandmother, who has a gift for penning the perfect thank you note, often reminded me while growing up of a William Arthur Ward quote: "Feeling gratitude and not expressing it is like wrapping a present and not giving it." What a tremendous gift the Forum has been!

It is truly the trifecta of volunteerism: work for a cause you love, learn something new, and make new friends. I am not sure I can ever fully express my gratitude for the opportunities to grow, the friendships that will last a lifetime and the honor that comes with now being Past President.

This year we have celebrated, we have rallied, and -- above all else -- we have worked together to achieve a tremendous amount.

Should we start with CELEBRATE? Pop the bubbly and grab your flute or your coupe! Our 2019 Gala, The Night They Invented Champagne, was a resounding success. It's a testament to our gala chairs when you can honestly say each and every year that this gala is the best one yet. Congratulations to Gala Chair **Whitney Solcher Miller**, Gala Co-Chair **Cynthia Kerby** and Gala Assistant **Whitney Schones**. The weather, the decor, the meal, the guests--everything was beautiful! Kudos to the Gala Team, including **Brooke Meabon** (Gala Treasurer), **Audra Kerr** (Table Sales), **Corinna Richter** (Gala Grants), as well as the entire Gala Committee on a job well done. The money raised at this terrific event is a crucial part of the "what starts at the Forum plants the seed to change the world" mantra. It will be exciting to see what our Forum Grants will sponsor this year!

In other Forum Grant news, former Forum Grant recipient **Ruth Rupericht, MD, Ph.D's** ground breaking research has received additional funding via an international collaboration between Texas BioMed and Mymetics Corporation in Switzerland from the NIH for a novel HIV Vaccine Study. The project was awarded \$8.67 million over a five year period to prepare a needle-free HIV vaccine candidate for clinical trials. Another chapter in our "women supporting science and each other" book!



Jody Lutz

In February, **Mallory Moorman** and **Emilie Petty** lead the way for our second Cheers to 'Chair'ity event. It is difficult to describe the evening without using the word FUN! It is always a pleasure showcasing the talent of local decorators and artists (including Past Forum President **Melissa Morgan**, Past Gala Chair **Raven Labatt** and this year's Gala Assistant **Whitney Schones**) with their redesigned Argyle chairs. The event was a resounding success. A good time was had by all in a beautifully curated setting, and the funds raised will assist the Forum's work and mission of supporting Texas BioMed.

A special thank you to The Argyle for their generous donation of dining chairs and patio furniture. Cheers to a job well done, Mal & Emilie!

In March, one of my favorite Forum events, The Science Education Awards, were overseen by **Heather De Rojas** and **Christina Ketabchi**. An outstanding group of high school teachers were recognized and Heather and Christina worked diligently to update the application and follow up processes while streamlining communication strategies with local schools. An excellent job - and a key step in securing the ongoing success of this important program. We are grateful to the program's founder, **Valerie Guenther**, for her ongoing support of the Forum and her continued leadership around the Science Education Awards.

Texas BioMed CEO, **Dr. Larry Schlesigner**, was our featured speaker at the Spring Lecture Luncheon. It is impossible not to be inspired by his vision and long term strategic plan for the Texas BioMed campus. Dr. Schlesigner discussed the importance of the fight against infectious disease and reminded those in attendance how instrumental Forum seed grants are in the scientific process on campus. Between Dr. Schlesigner and the high school science projects being recognized, the Slick-Urshell room at The Argyle was buzzing with anticipation and excitement about the future. How fortunate we are, as Forum members, to have a front row seat! Congratulations to **Amy Swaney** and Lecture Luncheon Assistant **Nicole McClane** on another successful lecture luncheon!

Also in March we thanked our Gala VIPs and Premium Sponsors at a reception at the home of **Christi and Thomas Moorman**. VIP Reception Chair (and new Trustee) **Muffin Moorman** did a fantastic job orchestrating the event, setting the stage for the Gala to come. Thank you to all of our generous sponsors! Be sure to check out the beautiful gala photos from Super Q Photography on page 8!

This spring our nominating committee met to slate our new officers and trustees. A special thank you to Past President **Courtney Percy** for leading this effort. The future is very bright for the Forum as another outstanding group of Trustees joins our ranks.

Once again, **Rebecca Nathan** and **Lauren Pepping** have gone above and beyond in delivering the Forum's newsletter. I am forever grateful to the attention to detail and patience this dynamic duo has shown this year. They have left their mark with updates on style, content and design of our newsletter. I hope you all have enjoyed reading it as much as I have enjoyed working with them on it!

I turn over the gavel to a dear friend, **Amy Swaney**, who will serve as President for 2019-2020. To counterbalance my Longhorn burnt orange color choice for the past year, Amy has selected Aggie maroon. College allegiances aside, I know Amy and her team will lead and grow the Forum in the best way possible. She is capable and kind and I cannot wait to see all that they achieve next year.

Our board this year has been -- in every defining sense -- a model of servant leadership, a cohesive group of like minded and dedicated women with the Forum's best interest always at heart. We cheered for each other and supported each other. We worked together hand in hand and we laughed -- A LOT. It's been a complete and utter joy to work with **Courtney, Amy, Whitney, Cynthia, Karen, Stephanie, Emily, Ashley, Brooke and Elizabeth**. The Forum is lucky to have had you all in the roles you have played.

To our Trustees: Each one of you have made this year incredibly special and spectacularly entertaining, and you will forever have a place in my heart. Working with you has made me a better leader and a better friend. Everyone played a strategic role in our collective success. To say I am grateful hardly seems to scratch the surface.

I joked at our Past Presidents Luncheon that the Forum is FOREVER, but I do believe that, so consider this a gentle reminder to renew your membership this summer!

In service and with deep gratitude, thank you for the opportunity to serve. Working together there is no doubt the best is yet to come! Cheers to the Forum!

*Jody Lutz*

President 2018-2019

Texas Biomedical Forum

Forum.President@TxBioMed.org



*A Note of Thanks to Our 2018-2019 Advisors  
from President Jody Lutz*

A tremendous trio of women have served as Honorary Advisors during the 2018-2019 Board year. As president, I was especially fortunate to have their counsel on call.

Ranu Gupta wrote, "Having more than one mentor is important — then it's like having your personal board of directors." This group could run a Fortune 500 company with style and grace. I have been fortunate to call them mentors and friends.

**Terry Gouger**

*President: 2009-2010*

*Gala Chair: Mystical Living Garden 2007*

There may be no greater historian of the Forum than Terry Gouger. The breadth and depth of her knowledge has been a gift throughout my tenure as a trustee. I first met Terry while serving on the nominating committee as a second year trustee, an experience that greatly shaped my own path with the Forum. A trusted friend and mentor, Terry also served as one of my gala advisors - as she has done for many other Forum galas. Additionally, she spent seven years as the Associate Development Officer at Texas BioMed, working closely with Corbett Christie. She currently serves as an Independent Contractor for the Development Office. In my "Forum Family" Terry fills the role of the "cool aunt" -- the one who knows all the answers and guides you without judgment. I am forever grateful for the hundreds of questions she's answered and the hours she has spent listening. Thank you, Terry!

**Melissa Morgan**

*President: 2014-2015*

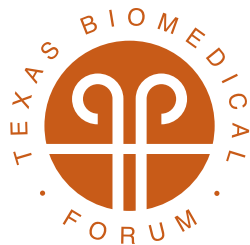
*Gala Chair: La Gloria Havana 2013*

Melissa's calm, collected leadership style marked her tenure as president. A confident leader, she has served as an advisor to many of our recent past presidents. In my "Forum Family Tree" Melissa filled the role of my big sister. A true friend and confidant, her patience in my "what do you think?" or "how would you handle?" questions is nothing short of remarkable. I am grateful that Melissa has been by my side throughout this journey with the Forum. Professionally, Melissa is the owner of M-Interiors. Her talent and vision know no limits. Appreciate you so much, Mel!

**Amanda Bezner**

*President: 2015-2016*

Amanda's presidency marked a new digital era for the Forum. Her understanding of the business of the Forum has been invaluable as we plan for the long term needs of our organization. Amanda is a dear friend -- "family" as we like to say. Sharing the gift of the Forum with Amanda has made this experience even sweeter. Professionally, Amanda serves as Director of Marketing at VIP Staffing, where she oversees all things digital, including website management, strategic communications, digital marketing and database management. Her compassion and dedication to her family and friends is a remarkable gift. Thank you, Amanda!



**Thanks!**

*Jody Lutz, President  
2018-2019  
and Amy Swaney,  
President 2019-2020*



*Immediate Past President, Courtney Percy pins Jody during the transition ceremony.*

*Congratulations to Amy Swaney, Forum President for 2019-2020! We know we'll accomplish great things with your leadership.*



A heartfelt THANK YOU to Jody Lutz for serving as our 2018-2019 president. It has been a real pleasure to witness Jody's hard work, stellar organizational skills and endless energy as I've worked alongside her over the past five years. Moreover, the Forum has been extremely blessed to have her as a key member for almost a decade. From the Board of Trustees and the membership at large, we thank you, Jody, for all the special touches you've added to our organization throughout your tenure and are truly grateful for the role you played in where we are today. —Amy Swaney

## 2019 Gala Grants Recognition

Texas Biomedical Forum would like to recognize and sincerely thank the following donors for their generous gifts to our 2019 Gala Grants program.

These donations will fund innovative pilot research at Texas Biomedical Research Institute, which is vital for the development of life saving advances that will benefit people worldwide. The Forum is truly grateful for our grantors' support of this internationally renowned biomedical research institute in our community and to their commitment to the scientists who will benefit greatly from these gifts.

### OUR GRANTORS

#### **\$15,000**

Mays Family Foundation

#### **\$10,000**

Peebles Ranch

#### **\$1,500- \$5,000**

Advantage Pain Management

Mrs. George C. Hixon

Mr. and Mrs. Rad Weaver

Mr. and Mrs. Charles Cheever

Mr. and Mrs. James W. Gorman  
*in honor of Tena Gorman*

John Newman Family Charitable Fund

Mr. and Mrs. Scott Nathan

Mr. and Mrs. Robert D. Tips

Mrs. Helen K. Groves

#### **\$100-\$1,000**

Mr. and Mrs. James H. Cowden

Mr. and Mrs. David Zachry

Mr. and Mrs. Curtis Gunn

Mr. and Mrs. Ronald Herrmann

Mrs. Camilla Parker

Mr. Marshall Miller and Mrs. Claudia Huntington

Mr. and Mrs. Tim Musgrave

Mr. and Mrs. Joshua Zeller

Mrs. Ann Barshop

Mr. and Mrs. Corbett Christie

Mr. and Mrs. Andrew Friedman

Ms. Judy Gillis

Mr. and Mrs. James Gouger

Mr. and Mrs. Lewis Moorman

Mrs. Wendy Stieren Worth

Mr. Kenneth Trevett

Drs. Ken and Amy Maverick  
*in honor of Amy Swaney*

# Cheers to CHAIRity

February 27, 2019

Following last year's hugely successful Cheers to 'Chair'ity event, The Argyle graciously gifted us an additional selection of their well-loved dining chairs and patio furniture to be refinished and auctioned off to raise seed money for the scientists at Texas BioMed. The event, which took place at The Argyle on February 27, was co-chaired by **Emilie Petty** and **Mallory Moorman**.

Twelve local designers generously donated their time and talents to each beautifully redesign a chair and give an old piece of Argyle history new life for a good cause.

Cheers to Chairity drew over 100 guests who mingled over Argyle margaritas while admiring the great talents that designers **Shelby Ames, Debbie Baxter, Maria Beck, Bonnie Chumbley, Carloyn Gnam, Kate Kingman, Raven Labatt, Mary McNelis, Melissa Morgan** (Past Forum President), **Casey Roy, Whitney Schones** and **Kim Wolfe** brought to transforming chairs that might otherwise have been discarded.

The original chairs, with green velvet seats well-worn after years spent around the dining tables of The Argyle, delighted all with fresh new Colefax & Fowler chintzes, Clarence House florals and Scalandre silks. Thanks to a clever idea that last year's Forum president, **Courtney Percy**, researched, the Forum was able to capitalize on the success of a brilliant concept that had proven successful for a non-profit in Chicago to raise money in a fresh, new way for our community in San Antonio.

The event raised nearly \$14,000 and the Forum is immensely grateful for the generosity of The Argyle and their staff in running an exceptional event, the designers, the silent auction winners and all who attended the event who made it such a success for Texas BioMed.



# STUDENT TOURS

The Forum and Texas Biomedical Research Institute closed out another fantastic year of student tours with a final tour by NEISD STEM Academy on February 28. More than **200 students** from six area high schools participated in student tours during the 2018-2019 school year. The tours were very well received by the students who had insightful questions and avid curiosity about the scientists' research and the primate facility.

The Forum Student Tour Co-Chairs, **Mary Labatt** and **Amy Maverick**, would like to thank **Alexandria Wadley**, Texas Biomedical Research Facility PR Specialist - Community Outreach, and the Texas Biomedical Research Institute scientists for their time, talents and hard work that made the 2018-2019 Student Tour season a great success.



Dates for the 2019-2020 Student Tour season will be posted on the Forum website in the coming month. Any teachers who are interested in signing up for a tour date can inquire via the website or by emailing [Forum.Outreach@TxBioMed.org](mailto:Forum.Outreach@TxBioMed.org).



## An Update from a 2018 Science Education Award Winner

Sarah Thompson from Warren High School won 3<sup>rd</sup> place last year and has provided us with an exciting update on the impact our grant has made in her classroom. This is one of many testimonials of how the Forum is able to touch the lives of so many in our community.

*Good morning!*

*I wanted to send along our update on what we were able to purchase with our grant. We bought some macroinvertebrate collection nets that had previously been outside of our funding ability as well as several types of magnification devices to allow the students to see specimens more clearly. The students had a blast looking at what we were able to collect and I'm quite sure that the dobsonfly larva that is included on this email is "snapchat famous" since almost every kid was posting about the weird and wonderful things we found. The students were able to analyze the samples from the various creeks we*



*collected from and then determine if those bodies of water were polluted, healthy, or somewhere in between. The generosity of the forum allowed our city kids to experience life from the bottoms of creeks from Bandera to Boerne. Many of them have since stated that it was their favorite lab of the year so far. It opened their eyes to science that, had they not done this lab, they probably would never known existed. We appreciate the opportunity the forum has provided to our students and look forward to many more years of introducing kids to the wonders that lie beneath.*

## 25th ANNUAL SCIENCE EDUCATION AWARDS & SPRING LECTURE LUNCHEON

On Wednesday, March 6, 2019, the Texas Biomedical Forum presented in partnership with the V.H. McNutt Memorial Foundation, the 25th annual Science Education Awards to three local high school science teachers at the Spring Lecture Luncheon at The Argyle.

Twenty-five years ago, the Science Education Awards program was conceived and founded by **Jerilyn Blanchard**, Past Forum President, and **Valerie Guenther**, Forum member and Trustee. Together they established a partnership with the Texas Biomedical Forum and the V.H. McNutt Memorial Foundation, led by Mrs. Valerie Guenther, to jointly award up to \$20,000.00 to local high school science teachers, both public and private, in Bexar County and surrounding areas. The goal of the program is to assist in the purchase of teaching materials to provide hands-on, progressive science education programs.

“The Science Education Awards program has awarded over \$450,000 to our local high school science teachers over the last 25 years.” said **Heather de Rojas**, Chair of the Science Education Awards committee. “It’s a wonderful program that provides teachers with the tools needed for creative, hands-on programs for their students.”

A panel of judges met to review the applications and determine the winners. The judges this year included Mrs. Valerie Guenther, Forum member and Trustee, representing the V.H. McNutt Memorial Foundation; **Heather de Rojas** and **Christina Ketabchi**, representing the Texas Biomedical Forum; and three scientists from Texas Biomedical Research Institute who included Dr. Kendra Alfson, Dr. Raul Bastarrachea, and Dr. Christopher Chen. A thank you also goes to Madeleine Dionne of Texas Biomedical Research Institute for her support and assistance.

This year we honored the following three high school science teachers for their proposals. The three winners will share a total of \$15,600 in awards.

Following the awards ceremony, First Vice President, **Amy Swaney** introduced **Larry S. Schlesinger, M.D.**, President and Chief Executive Officer of Texas Biomedical Research Institute as the guest speaker. Dr. Schlesinger’s timely lecture was on the topic of infection and the impact it has on our daily lives.

Applications for the 2019-2020 Science Education Awards will be available this summer on the Forum’s website under the Community Outreach link.

**Forum in Focus - Spring 2019**



*Left to Right: Kathleen LeFlore, Chair of the Board of Trustees for Saint Mary’s Hall and former Forum Trustee who had served as a Science Education Award Chair; Dr. Jamie Holbrook, 1st place winner of the 2019 Science Education Awards, Jonathan Eades, Head of School for Saint Mary’s Hall, and Jody Lutz, Forum President*

### CONGRATULATIONS TO THIS YEAR’S WINNERS!

#### 1st Place -- Saint Mary’s Hall

“The Effects of Environmental Contaminants on the Development and Functioning of Skeletal Muscles in Zebrafish”

*By Dr. Jamie Holbrook*

#### 2nd Place -- Cornerstone Christian Schools

“Genetic Variation in Successive Generations of *Poecilia Reticulatas*”

*By Shawna Lopez*

#### 3rd Place -- Earl Warren High School

“The Wonders of Space Exploration: Understanding Technology of Today’s Rovers”

*By Ivan Banuelos*



*Left to Right: Valerie Guenther, Christina Ketabchi, Dr. Jamie Holbrook, Shawna Lopez, Ivan Banuelos, Heather de Rojas*





## FORUM GALA 2019

# *“The Night They Invented Champagne”*

**A**fter a year in the making, Forum Gala 2019 is a wrap! *“The Night They Invented Champagne”* was a popping good time, and we can’t wait to tally the results of our most important and successful fundraiser of the year. Historically held the first Saturday in May, while the Kentucky Derby may have been controversial, the Gala was an overwhelming two coups up!

Chaired by **Whitney Solcher Miller** and Co-Chaired by **Cynthia Kerby**, with the design expertise of their Gala Assistant, **Whitney Schones** (soon to be Gala Chair 2020), guests were transported back in time to Belle Epoque Paris for an exclusive evening at Maxim’s! Guests were greeted at the entry with a Nebuchadnezzar large format bottle of Perrier Jouet curated by The Argyle’s own **Clay Wheeler** served from a specially built pouring apparatus into classic vintage coup champagne glasses. Passing by the antique Rolls Royce, guests shopped the many French styled carts filled with exhilarating silent auction items, thanks to our many gracious donors and the efforts of our Silent Auction Chair, **Emily Jones** and Co-Chair **Emilie Petty**, as well as our Underwriting Co-Chairs **Amy Swaney** and **Kim Johnson**. More fun was to be had by purchasing a raffle ticket for bling, generously sponsored by **Kelly Wade** in return for a sparkly champagne flute to light your way to your table.

The beautiful Argyle lawn was plush with green topiaries, hanging baskets and red geraniums, setting the scene for a Parisian walk in the park, where guests delighted in cocktails and beautiful appetizers including escargot voulevant, caviar, strawberries and brie, and mousse pate on toast points. Guests’ mouths continued to water as they entered **The Argyle** to continue feasting on Executive Chef **Jesse Villanueva’s** French inspired menu of poached pear salad and burnt honey dressing, a duo of duck confit and lobster tail, all topped off with petit fours, and of course the famed Brandy Freeze. Baubles were provided by **Lee Michael’s Fine Jewelry** with the help

of our Favor Co-Chairs **Jessica Berg** and **Heather de Rojas**. Tables were sold out, as usual, thanks to our Table Sales Chair, **Audra Kerr**, and we received numerous grants outside of Gala thanks to our Gala Grants Chair, **Corinna Richter**. Thank you to our Gala Treasurer, **Brooke Meabon**, for your hard work and diligent record keeping. We’d like to especially thank our Premier Cru sponsor, **Valero**, our Veranda sponsor, **Argo Group**, as well as countless other Grand Cru and Cru sponsors, including multi-table sponsor -- our beloved **H-E-B** and **friends**.

After dinner, **Doc Watkins and His Orchestra**, generously sponsored by **Donna and Ted Welsh**, livened up the crowd with a traditional second line march onto the dance floor, where feather fans, boas and hand rolled cigars made their debut. Special thanks to After Party Chair, **Haley Conger**, and Public Relations Chair, **Kristin Tips** for helping to make this the most successfully attended After Party yet. Couples danced into the evening and had their portraits painted live by **Franco-Modini Ruiz**. Patrons were re-fueled by Chef Jesse’s scrumptious Croque Monsieur’s and Pomme Frites while imbibing more bubbly! After all, the evening was all about #BubblesforBiomed!

But, alas, the night had to come to a close, with take-aways by **Cookie Cab**. Many thanks to all our hard working trustees for a night to be remembered and especially to my Gala advisors, **Terry Gouger**, **Ashley Hixon** and **Ashley Weaver** who have all been in my high-heeled shoes before! Cheers to Gala 2019!



**SAVE THE DATE!**

*Next Year’s Gala will be held on May 2, 2020*

# TEXAS BIOMED UPDATES

## TEXAS BIOMED COMMUNITY LEARNING AND DISCOVERY INITIATIVE

Texas BioMed's 10-year Vision for Change includes growing and enhancing the campus through the development of people, places and programs, including programs offered to and for our community. We are establishing visionary educational programs targeting K-12, undergraduate, graduate and postdoctoral students to provide one-of-a-kind training opportunities for the next generation of scientists. Texas BioMed's new Learning and Discovery Initiative aims to create a rich learning environment with new experiences in order to seed a highly skilled and productive workforce necessary to carry us forward. The initiative has three goals.

- **Educational Advancement** - Texas BioMed's science education programs at the K-12 level aim to excite and motivate students to pursue higher education and encourage them to focus on STEM careers
- **Workforce Competency** - Our undergraduate, graduate and postdoctoral training programs aim to provide support for students looking to enter the field of bioscience and research while increasing aptitude and skill sets of our future workforce.
- **Economic Competitiveness** - San Antonio has limited opportunities compared to cities on the East and West coast for students to work directly in a laboratory setting or in a research environment. Texas BioMed is uniquely positioned to provide them with the experiences necessary to be competitive after graduation and increase the skilled bioscience workforce in San Antonio to become nationally and internationally competitive in the life science industry.

Partnering with The Texas Biomedical Forum, the Institute's K-12 early education and introduction to bioscience program includes elementary and middle school visits for science fairs, career fairs and visits to classrooms by team members from Texas BioMed. These are accomplished through several city partnerships and by special request when staff is available. The high school program focuses on bringing students to our campus through the Forum's high school tours program. Additionally, our team enjoys promoting the high school education awards the Forum provides each year.

Texas BioMed has established a formal summer internship program with applicants applying and being selected for undergraduate and graduate practice-based learning in real-time scientific environments with active scientists and veterinarians. In its first year, Texas BioMed received more than 30 applications and will welcome 12 students to its inaugural summer internship season. Fall and Spring internships are dependent on availability of scientists.

We welcome input and ideas into our education program and are actively looking for community partners and supporters. If you are interested in learning more or would like more information, please reach out to Lisa Cruz, Assistant Vice President for Corporate Communications at [lcruz@txbiomed.org](mailto:lcruz@txbiomed.org).

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## TEXAS BIOMED VP NAMED EXECUTIVE DIRECTOR OF THE VACCINE DEVELOPMENT CENTER OF SAN ANTONIO

*More work needed as vaccine-preventable diseases are on the rise*



**Dr. Joanne Turner**

The rise in the numbers of parents choosing not to vaccinate their children is creating outbreaks of vaccine-preventable infectious diseases across the country. Headline-making surges of measles cases and parents exposing their children to chickenpox on purpose are creating unwarranted health threats.

Professor Joanne Turner, Ph.D., the Vice President for Research at Texas Biomedical Research Institute, will serve as the new Executive Director of the Vaccine Development Center of San Antonio.

Texas BioMed partners with the University of Texas at San Antonio, Southwest Research Institute and UT Health San Antonio to promote collaboration among the our participating research institutions in infectious disease research and vaccine development in order to facilitate new discoveries and eliminate duplication of resources.

“As an institution committed to combating infectious diseases, the development of new vaccines is crucial to Texas BioMed’s mission. I appreciate and endorse this collaborative consortium model these institutions have worked hard to maintain since the Center’s founding in 2012,” Turner commented.

The Vaccine Development Center’s mission is three-fold:

- Fund pilot projects
- Host an annual conference on infection, immunity and vaccines
- Promote the use of vaccines to enhance public health in San Antonio and the region

“Science is a team effort. This Center is built on the extraordinary power of people working together. Dr. Turner received the enthusiastic endorsement of representatives from each of the participating institutions,” said Ken Trevett, Founding Director of the Center.

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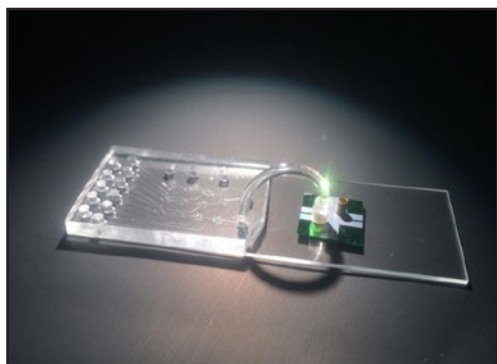
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## **EXPERIMENTAL ZIKA TEST UNDER DEVELOPMENT WITH TEXAS BIOMED AND NATIONAL COLLABORATORS**

### *Technology Would Help Clinicians Tailor Therapies Depending on Progression of Disease*

A collaboration of scientists including Professor Jean Patterson, Ph.D., of Texas Biomedical Research Institute, is working on a new way to detect Zika virus that will

help guide clinicians in their treatment of patients with the disease. The test uses optofluidic chips to screen bodily fluids (blood, urine,



semen) for the presence of the virus. This new approach will also help pinpoint the stage of the disease. Researchers at the University of California at Santa Cruz, Brigham Young University, and the University of California at Berkeley developed the technology being tested.

“What this technology will do is tell us, first of all, if you’ve already been infected. If you have antibodies, you wouldn’t be at risk for a new infection. It will also tell us where you are in your infection,” Dr. Patterson explained.

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Knowing the stage of the disease is critical, since many antivirals only work early in infections and are not very effective later in the course of the disease. This particular diagnostic test would tell clinicians if the patient is still in the RNA replicating stage (a sign of recent infection) or if the patient has started to produce viral particles (an indication the disease has progressed).

The mosquito-borne illness was first identified in Uganda in 1947, but Zika roared into international headlines in 2014 when cases of the virus were shown to have a connection to devastating birth defects – like microcephaly – in babies born to mothers who had Zika while pregnant.

The study into a new diagnostic technology to pinpoint Zika started two years ago. Texas BioMed provides knowledge about the virus and viral material the researchers at UC Santa Cruz can test. Also, scientists are using marmosets from the Southwest National Primate Research Center to provide blood, urine and semen samples for testing. These are the kinds of samples clinicians would use for their human patients.

Dr. Patterson is confident this work will bear fruit. “We’ve got this,” she stated.

Electrical engineering Professor Holger Schmidt, Ph.D., of UC Santa Cruz describes the new technology as “a lab on a chip.” Optofluidics uses a combination of two technologies. Microfluidics is a process that takes small biological samples for detection purposes like medical and chemical analysis. Then integrated optics uses optical waveguides, lasers, and other optical elements on a chip. Together, these technologies can detect molecules without the need for amplification that other tests require.

The same test is being developed for another pathogen Texas BioMed researches: Ebola virus. Dr. Schmidt says this less complex biological assay to detect infection would be helpful for people in remote areas like parts of Africa.

Funding was made possible from generous Texas BioMed donors along with NIH grants. The collaboration of scientists working on the project have applied for another scientific grant and they plan to apply for a grant to commercialize the experimental Zika test.

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*Continued on Next Page*

## TEXAS BIOMED SCIENTISTS DEVELOPING NEW VACCINE STRATEGY FOR TUBERCULOSIS

### *Experimental TB Protection Delivered Through a Spray Instead of a Shot*



For years, scientists have been trying to come up with a better way to protect people against

tuberculosis, the disease caused by infection with the *Mycobacterium tuberculosis (Mtb)* bacteria. Texas Biomedical Research Institute Professor Jordi Torrelles, Ph.D., says new hope is on the horizon after a recent experiment performed in mice showed great promise. The study was published in the journal *Mucosal Immunology*.

“What we found is that our formulation of a vaccine protected better than the current vaccine and did not cause any lung tissue damage,” Dr. Torrelles said. “If further research proves safety and effectiveness, the vaccine can be delivered directly into the lungs.” The current vaccine, called BCG, is delivered by an intramuscular infection in the upper arm.

“If it works, the drug delivery system for humans would be a spray delivered through a device similar to an asthma inhaler,” Dr. Torrelles explained.

Expanding the population who can tolerate a TB vaccine is important since tuberculosis is the world’s leading killer due to an infectious organism according to the World Health Organization.

When bacteria enter the lungs, they come in contact with the lining called the mucosa. That lining has enzymes that change the surface epitopes of microbes. Epitopes are the parts of a molecule to which an antibody produced by humans attaches itself. The current vaccine creates an immune response that does not take into account that epitope change.

Dr. Torrelles and his collaborators biochemically mimicked what the lung lining fluid does to the surface of bacterial cells so that a more precise vaccine can be made

on a larger scale. The idea is that the T cells (immune cells) will have a better memory response, recognize the bacteria and kill them.

The current vaccine BCG (bacille Calmette-Guerin), is made from *Mycobacterium bovis* which is similar to *Mtb* that infects humans. Studies show BCG is 70% to 80% effective in protecting against the most severe forms of TB, like TB meningitis in children. However, BCG is less effective in preventing respiratory disease, which is the most common form of TB in adults. Plus, immunity provided to those who are vaccinated as children wanes over time.

The BCG vaccine is not in use in the United States. According to the Centers for Disease Control and Prevention, the reasoning is three-fold: people in the U.S. have a relatively low risk of infection, BCG is not that effective against pulmonary TB in adults, and the vaccine has the potential to interfere with the tuberculin skin test, making it harder to determine who is carrying the illness.

BCG cannot be given to immune-compromised patients like people with HIV/AIDS. These patients are at a tenfold greater risk of developing tuberculosis if they have latent TB than people without HIV/AIDS. A vaccine that could be given to this population has the potential to save millions of lives.

“Since the *Mtb* infection happens in the lung, it makes sense to protect there,” Dr. Torrelles stressed.

Previous attempts to vaccinate intranasally have resulted in lung inflammation and tissue damage. In Dr. Torrelles’ experiment with the new vaccine formulation in mice, the inflammation rate was only 8% with the modified BCG compared to 20% For BCG (2.5 fold less inflammation in the lungs).

Also, Dr. Torrelles predicts this modified BCG vaccine may offer immunity at any age. This is especially important for the elderly who are at greater risk of developing TB. He says modifying the current vaccine would be an advantage since BCG is already approved by the Food and Drug Administration.

The next step is for Dr. Torrelles to secure funding to expand his research into nonhuman primates. He plans to use rhesus macaques housed at the Southwest National Primate Research Center on the Texas BioMed campus. These tests on larger animals are necessary before any human clinical trials can be conducted.

Other Texas BioMed scientists who worked on this project include Professor Joanne Turner, Ph.D., Staff Scientist Varun Dwivedi, Ph.D., and post-doctoral scientist Juan Moliva, Ph.D.

Partnering institutions include The Ohio State University and Tufts University.

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## **ANOTHER PIECE OF EBOLA VIRUS PUZZLE IDENTIFIED**

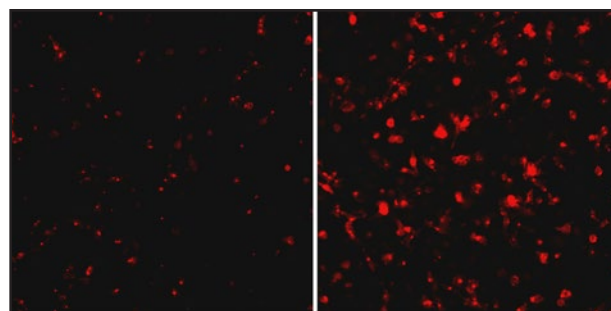
### *Texas BioMed Scientists Team Up to Study Host and Virus Protein Interaction*

A team of researchers have discovered the interaction between an Ebola virus protein and a protein in human cells that may be an important key to unlocking the pathway of replication of the killer disease in human hosts. Scientists at Texas Biomedical Research Institute were part of a nationwide collaborative with scientists at Gladstone Institutes, UC San Francisco and Georgia State University for a study recently published in the journal *Cell*. This work was funded by a grant from the Texas Biomedical Forum awarded to Dr. Shtanko and Dr. Arnett in 2017 in addition to two NIH grants.

Scientists around the globe are trying to pinpoint potential drug targets to stop Ebola virus disease, a hemorrhagic fever that has killed 625 people as of March 2019 in the latest outbreak in the Democratic Republic of Congo. Thousands of people have died from Ebola since an outbreak erupted in West Africa four years ago.

Texas BioMed Staff Scientist Olena Shtanko, Ph.D., describes this new work as a “turning point for understanding how replication of Ebola virus is modulated.” Her role in the project was to validate and test whether the interaction between an Ebola virus protein called VP 30 and a host (human) protein called RBBP6 had involvement in the life cycle of the virus. Dr. Shtanko worked on this project while in the lab of Dr. Robert Davey, a former Texas BioMed Scientist, now at Boston University.

Earlier research by scientists in California used a protein interaction map to narrow down host and virus protein interactions and then using a yeast system and an artificial proxy virus system proved the theory of this particular protein-protein interaction. However, scientists needed to use replicating virus and human immune cells to test the clinical significance of the finding.



**Ebola Virus Protein Impact photos**

“The interaction is important if you can show functional significance of what it does to the virus in cells that have clinical relevance,” Shtanko stressed. “If you can figure out the mechanism within these cells, then you can potentially manipulate it and stop the disease progression.”

Texas BioMed Staff Scientist Eusondia Arnett, Ph.D., and Texas BioMed President and CEO Dr. Larry Schlesinger – both tuberculosis researchers – have expertise in working with human macrophage (immune) cells drawn from donated blood samples. “We were able to capitalize on our experience with macrophages to over- and under-express the RBBP6 (host) protein to create an effective model for this important Ebola virus research,” Arnett said.

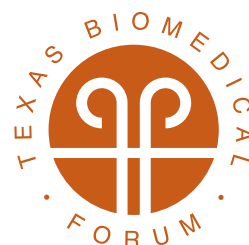
By over- and under-expressing the RBBP6, Shtanko was able to test what impact the protein had on the growth of Ebola virus in the macrophages. Shtanko said the results were striking. When the host protein was under-expressed, the viral replication went up exponentially. She found similar results when working with vascular cells, which are also key to Ebola virus replication in an infected patient.

The study was also an example of the Institute’s new team science environment; whereby, researchers capitalize not only on the resources available at Texas BioMed but the expertise of its cross-functional teams (i.e. Ebola virus and macrophage biology) to produce beneficial results.

Texas BioMed has one of only a handful of Biosafety Level 4 laboratories in the United States where scientists can safely work with deadly pathogens, such as Ebola virus, which cause diseases for which there is no cure. This allowed for the study to be completed in human cells using live virus. And, Shtanko explained, the study turnaround was very short, so having the expertise of Arnett and Schlesinger was integral in creating the human macrophage cells necessary to complete the study.

## REFLECTIONS OF OUTGOING TRUSTEES

Each year we say goodbye to a group of women who have dedicated their time and energy to making the Forum a success. This year the following twelve wonderful, passionate and hard-working women will be rolling off our Board: **Hayley Conger, Elizabeth Cox, Heather de Rojas, Stephanie Dick, Kelly Fry, Kim Johnson, Amy Maverick, Nicole McClane, Mallory Moorman, Courtney Percy, Sarah Trampota and Ashley Weaver.** Several of them shared a few thoughts on their tenures as Trustees. THANK YOU for all you have done! This is not a goodbye, but a see you soon!



### **Courtney Percy, Past President, Trustee since 2010**

*What's one of the more impactful moments you experienced during your time as a Trustee?* Too many to count, but I always enjoyed hearing directly from scientists we supported through our fundraising efforts. I am certainly not a scientist, so if creating awareness and raising funds is my way of contributing, I am grateful to serve Texas BioMed in that way. I also had the opportunity to sit down with **Tena Gorman** (President 1971-72), **Ruth Eilene Sullivan** (President 1972-73), and **Jody Lutz** (current President) to discuss the founding of the Forum. It was wonderful to share stories of the Forum's origins, where we are today and where we see ourselves going in the future. The women responsible for founding the Texas Biomedical Forum had a true vision, and the fact that they are still involved today speaks volumes about the importance of this organization.

### **Elizabeth Cox, Parliamentarian, Trustee since 2013**

*Why the Forum and how did you first get involved?* I first got involved after being invited to a luncheon. My career is not in the medical field, so hearing about the Forum was quite intriguing. I wanted to become more involved to learn more about this gem we have in our city by way of Texas Biomedical Institute, but I also wanted to get involved with something outside of my career 'box'. My exposure to the Forum has taught me so much, provided me the opportunity to cultivate many new friendships and I have gained such respect for the work done at Texas Biomedical Research Institute and Texas Biomedical Forum!

### **Kelly Fry, Trustee since 2016**

*What's one of the more impactful moments you experienced during your time as a Trustee?*

So many actually!! Most recently and near to my heart a dear family friend, **Rex Amini** (he is also on the board), was impacted by MRSA and how Tex BioMed is one of the solutions in fighting this antibiotic resistant super bacteria. I know right there they are changing the world here in San Antonio.

### **Kim Johnson, Trustee since 2016**

*What was your favorite position with the Forum and why?* I really enjoyed all of my positions as a Trustee.

### **Jody Lutz, President, Trustee since 2012**

*Why the Forum and how did you first get involved?* As many people know, I was born a "Micro-Premie," only weighing 1.8 pounds. I was given a less than 10 percent chance of survival, but as luck would have it, I was in the right place at the right time and spent the first eight weeks of my life in an experimental incubator. I beat the odds, survived and thrived, the rest is history! But my parents always stressed the importance of giving back and I grew up knowing that I was fortunate to have benefitted from advances in incubator technology. Connecting the dots to the historical legacy of Texas BioMed's crucial role in that area made it all come full circle for me. This has truly been a way to "pay it back" for me personally. It's been a gift to be able to give back in my own small way.

Former Trustee **Leslie Miller** and Past Presidents **Amanda Bezner** and **Julie Zachry** first approached me about joining the Forum after I asked a few too many questions to the scientist at my first lecture luncheon!

### **Heather de Rojas, Trustee since 2016**

*Why the Forum and how did you first get involved?* I've attended the Forum Gala since 2007 and have always enjoyed the event. My sister-in-law, **Tracee Feik**, and my sister, **Amy Feik Garcia**, both served as Trustees. I first got involved with the Forum in 2015, when I was asked to chair the Forum Grants program. I was immediately interested in becoming a Trustee and getting more involved with the community outreach. I was elected in 2016 to serve as a Trustee and have truly enjoyed the last three years serving with such amazing women and helping to spread the word about Texas Biomedical Research Institute and the critical research that they perform.

# FORUM BOARD OF TRUSTEES CALENDAR 2019-2020

<u>DATE</u>	<u>TIME</u>	<u>EVENT</u>	<u>LOCATION</u>
Mon. May 20, 2019	5:00 p.m.- 7:00 p.m.	<b>New Trustees Welcome Reception</b>	(Swaney Home)
Wed. Sep. 11, 2019	10:30 a.m.	<b>Board Meeting</b>	The Argyle (Slick-Urschel)
Wed. Sep. 18, 2019	9:30 a.m.	<b>TBR Tour</b>	Texas BioMed
September	TBD	<b>Gala Kick-Off</b>	The Argyle
October/November	TBD	<b>Fall Special Event</b>	TBD
	TBD	<b>*Roundtable Discussions</b>	The Argyle
Wed. Oct. 9, 2019	10:30 a.m.	<b>Board Meeting</b>	The Argyle (Slick-Urschel)
Wed. Oct. 30, 2019	11:30 a.m.	<b>Past President Luncheon</b>	Location TBD
Wed. Nov. 6, 2019	10:00 a.m.	<b>*Board/Member Meeting</b>	The Argyle (Dorn)
	11:00 a.m.	<b>*Fall Lecture Luncheon</b>	(Slick-Urschel)
Wed. Jan. 8, 2020	10:30 a.m.	<b>Board Meeting</b>	The Argyle (Slick-Urschel)
Wed. Feb. 12, 2020	10:30 a.m.	<b>Board Meeting</b>	The Argyle (Slick-Urschel)
February/March	TBD	<b>Spring Special Event</b>	TBD
Wed. March 4, 2020	10:00 a.m.	<b>*Board/Member Meeting</b>	The Argyle (Dorn)
	11:00 a.m.	<b>*Science Education Awards</b>	(Slick-Urschel)
	11:30 a.m.	<b>*Spring Lecture Luncheon</b>	(Slick-Urschel)
Wed. April 8, 2020	10:30 a.m.	<b>Board Meeting</b>	The Argyle (Slick-Urschel)
Sat. May 2, 2020	6:00 p.m.	<b>*Gala</b>	The Argyle
Wed. May 6, 2020	9:30 a.m.	<b>New Trustee Orientation</b>	The Argyle (Second Floor)
	10:30 a.m.	<b>Board Pictures/Board Meeting</b>	(Dorn)
	11:30 a.m.	<b>Board/Past President Luncheon</b>	(Slick-Urschel)

*\*denotes event that is open to the general Forum membership*

**Student Tours:** Dates to be determined.

**Forum In Focus Newsletter Article Submission Deadlines:** September 18 / January 29 / April 29

**Science Education Award Application Deadline:** Wednesday, January 29, 2020

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



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## *Thank You, Forum Members!*

Your membership is vital to the ongoing success of the Forum. If you are reading this newsletter for the first time as a new member, we want to thank you for your support and welcome you to the Forum. Your Forum membership allows you to stay up to date on all the social, community and fundraising activities of the Forum, whether it is Lecture Luncheons, Roundtable Discussions or other special events. Forum members also receive priority notification of table sales for the Forum Gala and exclusive members-only tours of the Texas BioMed campus are available upon request.

Forum membership runs from June 1 through May 31 of the following year. For current members, we will be gearing up for our annual membership drive in August through the Fall. Please be on the lookout for a mailer with details. You can always go on-line and renew, too. Thank you again for your support of Texas Biomedical Research Institute.

**Questions regarding membership? [Forum.Membership@TxBioMed.org](mailto:Forum.Membership@TxBioMed.org)**