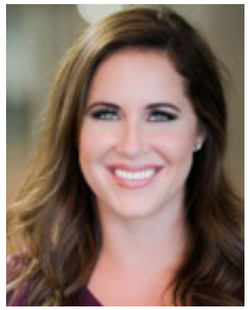
Forum in Focus

TEXAS BIOMEDICAL FORUM
CELEBRATING 52 YEARS

ENTHUSIASTICALLY PROMOTING THE TEXAS BIOMEDICAL RESEARCH INSTITUTE
THROUGH COMMUNITY RELATIONS, VOLUNTEER SERVICE, AND FUNDRAISING

President's Letters



Dear Friends of the Forum,

It is truly an honor to be addressing you as our organization's 52nd President!

The women who have come before me bear an incredible legacy and I am humbled to follow in their footsteps. Most recently, in those of Immediate Past President **Cynthia Kerby** who faced unprecedented challenges during her tenure. As an organization that is known for our in person programming and events, under Cynthia's leadership we were challenged to fulfill our mission in creative and unique ways. We successfully fundraised throughout the year, hosted two virtual events, and finished the year with a hybrid live/virtual fundraising auction. **Our combined efforts resulted in an amazing $510,000 gift to the Texas Biomedical Research Institute.**

As we begin a new Forum year, we have kicked off our annual membership campaign under VP Membership **Kristin Tips** and her assistant, **Carolina Lewis**. Members are the bedrock of our organization and membership dues represented $115,000 of our revenue last year. If you have not already, please consider joining us as a membership for 2021 – 2022.

It is a wonderful time to be a member as you are not going to want to miss all of the events we have scheduled for the year. **Emilie Petty**, VP Lecture Luncheon, and her assistant **Scarlette Moorman**, planned and executed a beautiful and informative lunch on October 6th and they are already thinking about our Spring Lecture Luncheon scheduled for March 3rd. **Adrianna Grossman** and **Ashley Friedman**, Special Events Chairs, are planning a member holiday party on December 16th and an Onze Tournament on February 3rd. And of course, planning for our much anticipated Forum Gala on May 7th is well underway in the capable and creative hands of Chairs **Rebecca Nathan** and **Audra Kerr**, Gala Assistant **Callie Price**, Gala Treasurer, **Bonnie Muecke**, and Table Sales Chair, **Avril Byrne**. We are all counting down the days for Forum Gala 2022: The Enchantment of Spring.

Additionally, **Gloria Dilley**, Grants Chair is actively soliciting and exploring matching opportunities for our fundraising goals. As a reminder, a gift to grants is 100% tax deductible and directly funds pilot studies for the amazing scientists at TBRI.

Please reach out to Gloria if there is a donor or foundation that would like to be involved in our efforts. A thank you to **Scotty Macdaniel**, Strategic Fundraising Advisor for her advice and expertise in this arena.

We have some exciting new changes to two of our long standing community outreach endeavors. Historically hosted by Forum trustees, we are now handing the reigns of high school campus tours over to Texas Biomed. Student Tour Chairs **Meredith Howard** and **Jessica Worth** are working with TBRI's Learning and Discovery Initiative to eliminate economic barriers that have prevented schools from participating in the past. Once pandemic protocols allow on campus tours, The Forum is pleased to be able to provide sponsorships to cover necessary hidden costs of field trips to select schools. Additionally, our Science Education Awards, in association with V.H. McNutt Memorial Foundation, is redirecting funds from awarding high school teacher's classroom initiatives to now offering scholarships to seniors planning to pursue a college degree in science. For questions on this new scholarship opportunity, please reach out to **Kate Rogers**.

Some of The Forum's most important jobs are the least visible. I'd like to thank Secretary **Lindsay Bolner,** Treasurer **Mary Labatt**, Parliamentarian **Christina Ketabchi**, the entire communications team chaired by **Emily Sytsma**, **Sarah Hager**, **Katie Fravell**, **Angie Light**, and **Angela Rabke**, Social Correspondent **Stacy Schlagel** and Historian **Muffin Moorman** for all their work behind the scenes. Your efforts are not only critical to our organization's success, but so appreciated by me! We are also very excited about a new website coming soon, designed and generously underwritten by **Katie Rogers**.

As we look forward expectantly to the year ahead, we remember those who have come before us, notably Forum Founder **Tena Gorman** who we lost earlier this summer. **Triana Grossman**, Past President Liaison is making a concerted effort to engage and inform the 39 living past presidents of the business of The Forum. We look forward to honoring each of you at a Past Presidents Luncheon on November 18th. Additionally, I am honored to have a representative from each Forum decade serving as my advisors. Thank you to **Jane Satel** (President 1978-79), **Barbara Dreeben** (President 1985-86), **Rhonda Low** (President 1995-96), **Laura Moorman** (President 2008-2009), and **Julie Zacher** (President 2012-2013).

Lastly, I would like to thank TBRI VP of Development **Akudo Anyanwu** and her team for their guidance and support of our board as we enthusiastically promote the Texas Biomedical Research Institute through community relations, volunteer service, and fundraising.

Gratefully,
Amelita Mauzé

We are thrilled to have five past Forum Presidents serving our board as advisors. The Forum presidents represent each decade that The Forum has been in existence and serve our board as advisors. They have been so gracious to dedicate their time and expertise and continue to provide invaluable guidance and leadership to our current board. Thank you to Jane Satel ('78-'79), Barbara Dreeben ('85-'86), Rhonda Low ('95-'96), Laura Moorman ('08-'09), and Julie Zacher ('12-'13).

We are so grateful a few of them were able to attend our Fall Lecture Luncheon and Gala Reveal. Pictured left to right are Jane Satel, Barbara Dreeben, current President Amelita Mauzé, and Julie Zacher.

LETTER FROM THE 51ST FORUM PRESIDENT, CYNTHIA KERBY

Looking back over this past year, I am humbled and honored to have served as the 51st President during such an incredible time in our history. As a Board, we overcame the challenges together and raised $510,000 for Texas Biomed! We did this through our creativity and our passion to persevere during a pandemic. I am eternally thankful to the board, my advisors and all of our loyal members and donors.

Something that was very important for me was to be able to look back on my term as President without the overshadowing of a global pandemic. My goal was to leave a mark and a legacy that would continue well beyond my year as President. This was realized by an inaugural "2020 Lifetime Membership" opportunity and a newly added annual Student Scholarship; which will be awarded for the first time this school year. I will look back on my year and these accomplishments will proudly mark The Forum's 51st year in service to Texas Biomed and our community.

As The Forum moves into a new year, I am confident in our new President, **Amelita Mauzé**, to continue to do great things in support of the amazing work at Texas Biomed. With our last Gala being two years ago in 2019, chaired by **Whitney Miller** and myself, I look forward to the return of our annual Gala. I encourage everyone to renew their membership and make plans to attend the much anticipated event. I can't wait to see everyone there…mark your calendars for May 7, 2022!

Serving with Passion & Purpose,
Cynthia Kerby, *51st Forum President*

FORUM GALA 2022 TEAM:

Rebecca Nathan, *Gala Chair*
Audra Kerr, *Gala Co-Chair*
Callie Price, *Gala Assistant*
Avril Byrne, *Table Sales*
Bonnie Muecke, *Gala Treasurer*

FORUM GALA: SAVE THE DATE AND THEME REVEAL

Mark your calendars for Saturday, May 7, 2022, and get your dancing shoes ready for The Forum's annual Gala to raise funds for Texas Biomed!

Our gratitude to everyone at Texas Biomed has been further heightened since COVID entered our lives. The past year and a half have shone a new light on science—it's in the headlines and on our minds. COVID vaccines had just started to become readily available when this year's Gala team started thinking about themes. It was a time full of excitement, anticipation and hope. Hope that we were on our way out of the darkness and hope that we would soon be safe and well.

Forum Gala is traditionally held on the first Saturday of May, as we annually usher in a new season of birth and renewal. Spring time brings rejuvenation after the cold and dark of winter. It's a season of revival.

Lady Bird Johnson is known for saying, "Where flowers bloom, so does hope." It's with this sentiment and great joy that Gala Chair Rebecca Nathan and Gala Co-Chair Audra Kerr recently announced at our Fall Lecture Luncheon the theme for Forum Gala 2022: ***The Enchantment of Spring***.

Please plan to join us for what promises to be an evening full of fun and grandeur. The Gala team is ecstatic at the response to table sales this year—nearly all private rooms have been sold and tables are going quickly! Email Gala Co-Chair Audra Kerr (audrakerr8@gmail.com) to reserve your room or premium table sponsorship today!

If you are unable to attend Gala, we ask that you please consider underwriting a portion of the evening and/or making a donation to Gala Grants—two options of which both are 100% tax-deductible.

FALL LECTURE LUNCHEON

The Forum is pleased to host two educational lecture luncheons each year. These luncheons provide an opportunity for our members and their guests to hear from a panel of experts on innovative and timely medical topics that impact human health.

We were grateful for the opportunity to have hosted our Fall Lecture Luncheon on the covered Veranda of the Argyle on Wednesday, October 6th. It was a special event where attendees had the privilege to hear from leaders in science and medicine on the frontlines of vaccine development and children's health. We enjoyed a panel discussion with Texas Biomed Innovations Manager and Manager of the Vaccine Development Center of San Antonio Tracey Baas, PhD, Professor in Disease Intervention and Prevention at Texas Biomed Luis Martinez-Sobrido, PhD, and Associate Professor in Pediatrics-Infectious Disease at Baylor College of Medicine Flor Munoz-Rivas, MD.

We learned of impressive trials taking place within Texas Biomed and enjoyed hearing each of the panelists' confidence in children's health. We are so grateful for this team for sharing their knowledge. Following the panel discussion, our gala committee, Rebecca Nathan, Audra Kerr and Callie Price, presented a beautiful 2022 gala theme reveal.

The lecture luncheon was hosted by Emilie Petty and Scarlette Moorman.

We were delighted to be back together on a beautiful sunny day to celebrate the incredible and more relevant than ever research that Texas Biomed continues to provide our world.

Please save the date for the Spring Lecture Luncheon: **Thursday, March 3, 2022.**








Pictured above: We would like to welcome our new Forum members Carolina Roberts Lewis, Adrianna Grossman, Scarlette Moorman and Avril Byrne. We are excited for them to join our dynamic group of women. They will play an important role in helping to raise awareness and funding for the groundbreaking scientific research taking place at Texas Biomed.

NEW THIS YEAR! SCIENCE EDUCATION AWARD SCHOLARSHIPS

Through a new partnership with the Bexar County Scholarship Clearing House and the generosity of the V. H. McNutt Memorial Foundation, area students now have the opportunity to apply for the Texas Biomedical Forum's new Science Education Award Scholarships for the first time.

The scholarships are replacing the awards formerly given to local science educators and will be one-time, merit-based awards each ranging from $500 to $20,000. Scholarships for each year may total up to $20,000. A successful applicant must be a senior graduating from a Bexar County or contiguous county high school, must have a GPA of 3.5 or better and must intend to pursue a college curriculum directed towards a degree in Science. Applications can be submitted in conjunction with the Minnie Stevens Piper Foundation and will be due in November of 2021.

Many thanks to the V.H. McNutt Memorial Foundation for their incredible support of Bexar County students and the Texas Biomedical Forum.

As a background, for the past 27 years, the Texas Biomedical Forum and the V.H. McNutt Memorial Foundation joined forces for the Science Education Awards. Local public and private high school teachers were invited to participate. The awards were given to the top teachers whose proposals demonstrate the strongest commitment to the scientific process and the further development of hands on, progressive science education programs. Winners were determined by a panel of judges.

Students who are interested in applying for the Science Education Award Scholarships should visit with their high school counselor to learn more or visit the Foundation's website at https://comptroller.texas.gov/programs/education/msp/funding/programs/sacbcsch.php.

We are excited to offer this new scholarship opportunity to students in and around Bexar County!

MEMBERSHIP RENEWAL

It's time to renew or sign up for membership! Forum members are a crucial part of our organization as the annual membership dues paid by members make up a significant portion of the gift presented to Texas Biomed. As a member you will be kept up to date with all the amazing progress and functions that Texas Biomed is working on.

By joining, you help ensure the ongoing success of our organization and the impact it has, not only on our community but the world.

Our membership year runs from August 1-July 31 and is open to all women, 21 years and older. Your dues are 100 percent tax deductible at the following levels:

Benefactor Membership: $300 • Supporter Membership: $150 • Contributor Membership: $75

All members receive the same benefits. The higher-level memberships allow the Forum to increase our visibility in the community and provide greater financial support of Texas Biomed. You can use the QR below to easily renew your membership or visit: https://forum.txbiomed.org/forum-membership/.

For inquiries regarding membership:
Email: Forum.Membership@txbiomed.org.
Mailing address: PO BOX 6648; San Antonio, TX 78209
Phone number: (210) 258-9400

We thank you for your support of the Forum and look forward to seeing you soon!

You're Invited

MEMBERS HOLIDAY RECEPTION

Enjoy light bites and bubbles, holiday entertainment and visiting with Texas Biomedical Research Institute members, executives and even scientists at the Members Holiday Reception.

The Texas Biomedical Research Institute and the Trustees of the Texas Biomedical Forum are pleased to invite members to attend on:

Thursday, December 16, 2021
5:30 – 7:30 p.m.
The Argyle

Attire will be festive cocktail.

You're Invited

PAST PRESIDENTS LUNCHEON

We look forward to honoring our 39 living Past Presidents at a luncheon on:

Thursday, November 18, 2021
11:30 a.m.
The Argyle

A formal invitation will be mailed to our esteemed past leaders.

For any questions, please contact Past President Liaison, Triana Grossman at trianacg@gmail.com or (956) 324-9122.

Five Decades of the Forum

HISTORY OF THE FORUM

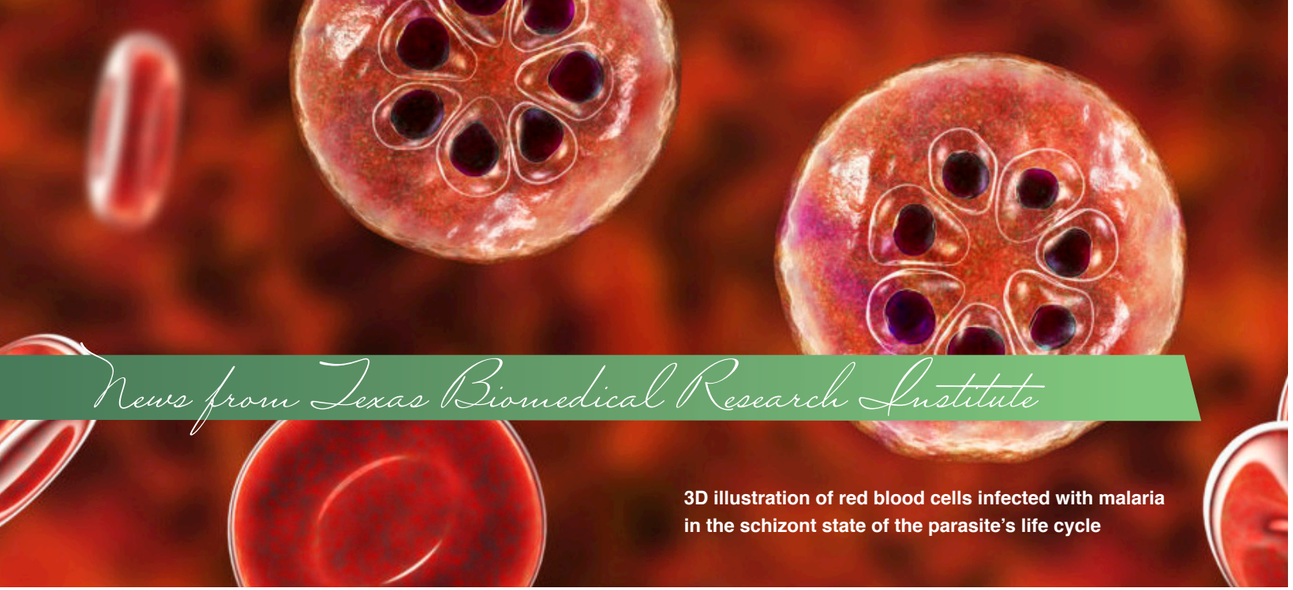
BY: MUFFIN MOORMAN

Five decades of Forum history, photos, newspaper articles, and personal correspondence and anecdotes have been stored in dozens of beautiful old leather-bound scrapbooks. It is my welcomed task this year to explore them all! My goal is to distill from them a set of waymarks from the past that will concretize our identity and practices for the future. It is my hope that doing so will provide greater ease and efficiency in all the important work the Forum does.

I've been especially inspired by the Forum's beautiful legacy of forming an authentic community of women who serve their larger community so well, and in such an integrated way. I've always been personally inspired by the example of Betty Moorman, who, from the very earliest days of the Texas Biomed vision, carried the hopes of her brother Tom Slick in her heart in a very special way. As a brave, visionary woman surrounded by a community of friends, she ventured into new territory by launching an independent and ongoing endowment for scientific research within and from her local community.

In the same way, our Forum founders found new ways to promote scientific research in ways that served both their own families and the interests of their global community, as well. The story of the Forum is the story of a community of women supporting each other and their community in joyful ways that have extended to the entire world around them.

Our local celebrations have resulted in saved, extended and enhanced lives, globally. And at the same time, we have adapted and evolved so meaningfully as a group, from serving cocktails with scientists in the early days to forming a significant force for advancing science education in the present. From promoting colonial ideas of population control in early research to preparing the way for more and more development in life-giving fertility care and maternal health for mothers and their pre-born children in the years ahead. It's amazing to see how far we've come.



News from Texas Biomedical Research Institute

3D illustration of red blood cells infected with malaria in the schizont state of the parasite's life cycle

CATCHING MALARIA EVOLUTION IN THE ACT

Researchers can now detect brand new mutations in individual malaria parasites infecting humans. Such high resolution could help us understand how parasites develop drug resistance and evade immune responses, and suggest potential treatment targets.

Understanding how malaria parasites evolve after a human is bitten by an infected mosquito is very difficult. There can be billions of individual parasites in a patient's bloodstream and traditional genetic sequencing techniques can't identify the raw material for evolution: new mutations.

"If you want to understand if the parasites are related to each other, if they are all from one mosquito or multiple mosquito bites, and what novel mutations are emerging in an infection, then you have to bring it down to the individual genome level," says Assistant Professor Ian Cheeseman, Ph.D., and Co-lead of the Host-Pathogen Interactions Program at Texas Biomedical Research Institute.

Thanks to a combination of advanced techniques, Cheeseman and his collaborators are now able to sequence the genomes of individual parasites found in the blood of infected patients. Notably, they can now do this even when the infection burden is very low, which can occur during asymptomatic infections. They describe their approach this month in the journal *Cell Host & Microbe*. Gaining this incredibly detailed view of malaria parasite genetics and evolution is expected to give researchers and drug companies ammunition to develop more effective treatments, vaccines or therapies.

Malaria infects more than 200 million people a year, killing more than 400,000 in 2019 – most of them young children. Of the five malaria parasite species that infect humans, two are the most widespread: Plasmodium falciparum, which is the deadliest; and Plasmodium vivax, which is the leading cause of recurring malaria infections because it can lie dormant in the liver and reemerge later.

"We were really excited to understand how this dormant liver stage might impact genetic variation and evolution in a P. vivax infection," says co-first paper author Aliou Dia, Ph.D., a postdoctoral researcher in Cheeseman's lab who is now at the University of Maryland School of Medicine.

The challenge is that when P. vivax does emerge, it only infects very young red blood cells, so parasites are rare in the blood. Analyzing such low levels of infection is the microbiology equivalent of finding a needle in a haystack.

The scientists start with red blood cells, which become slightly magnetic when infected with malaria parasites. They used a high-powered magnet to separate the infected red blood cells from uninfected cells. The infected cells were then run through a machine called a flow cytometer, which uses a laser and fluorescent tags to detect if there is indeed parasite DNA present. Cells with parasite DNA are plopped one by one into test wells and ultimately run through a genetic sequencing machine to decode each individual parasite genome.

Single cell sequencing enables the scientists to precisely compare individual parasite genomes to one another to determine how related they are to each other. They can also really dig down and pinpoint single differences in the genetic code—say an A is changed to a T—to see what happened since the parasite infected that patient.

"We would expect these brand-new mutations to be scattered randomly throughout the genome," Cheeseman says. "Instead, we find they are often targeting a gene family that controls transcription in malaria."

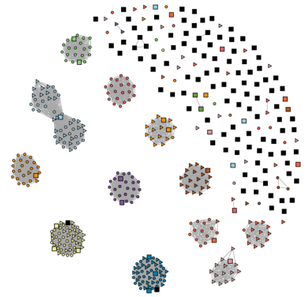
But that's not the only notable thing about the results. What really excites Cheeseman is that when the team compared single cell sequencing data for P. vivax and P. falciparum, the same transcription gene family contained the majority of new mutations for both species.

"We have two different species of malaria from two different parts of the world, Thailand and Malawi," he says. "When we see the same thing happening independently in different species, this is an example of convergent evolution."

In other words, similar processes might be shaping similar mutation patterns in both species, even though their last common ancestor was millions of years ago.

The team does not know yet what impact the mutations have on the parasite and its ability to persist and cause damage in human hosts. The mutations may be critical for survival, or something like drug resistance, or may reveal those genes are unimportant.

"We don't know what these mutations are doing," Cheeseman says. "But the fact that they are targeting what is seen to be a fairly fundamental part of the parasite lifecycle is interesting and worthy of a lot of follow up."



Pictured here:
Single cell sequencing data reveal how parasites from the same malaria infections are closely related to one another. The related parasites are clumped together in the genetic relatedness network.

TEXAS BIOMEDICAL FORUM SHOWS STRONG SUPPORT FOR SCIENCE AMID PANDEMIC

Even amid a global pandemic and widespread shutdowns, the more than 50-year-old organization that supports and promotes the Texas Biomedical Research Institute raised $510,000 last year in support of research.

As a result, scientists studying infectious agents such as SARS-CoV-2 will receive support for their work through the Forum Pilot Study Grants Program. These seed grants allow selected scientists to generate preliminary data to attract larger grants from organizations such as the National Institutes of Health.

"It's just incredible what The Forum has pulled off last year," said Akudo Anyanwu, MD, MPH, Texas Biomed Vice President, Development. "Like our scientists, members went above and beyond during this highly unusual time to make sure we could continue protecting our local and global community from the threat of infectious disease."

FORUM GRANTS AT WORK: PROFESSOR IAN CHEESEMAN

Assistant Professor Ian Cheeseman, Ph.D., who received a 2021 Faculty Forum Grant, has just published a study showing how he and his team can catch malaria evolution in the act. Through a combination of advanced techniques, they can sequence the genomes of individual malaria parasites infecting humans and detect brand new mutations. Gaining this incredibly detailed view of malaria parasite genetics and evolution is expected to give researchers and drug companies ammunition to develop more effective treatments, vaccines or therapies.

Texas Biomedical Forum
Post Office Box 6648
San Antonio, TX 78209

UPCOMING EVENTS

November 18, 2021
Past Presidents Luncheon

December 16, 2021
Member Holiday Cocktail Party

February 3. 2022
Galentines Onze Tournament & Luncheon

March 3, 2022
Spring Lecture Luncheon/Science Education Awards Presentation

May 7, 2022
Forum Gala: The Enchantment of Spring