The Element October 2023



▲ Myra Wilson and Elsie Eckert present the Don D. Jordan Outstanding Trailblazer Scientist award to BRASS Scholar Linda Zhang.

- ▶ BRASS Tea & Toddies Highlights and Photos
- ▶ BRASS Highlights BRASS Scholar Dr. Tuan Chao solves Genetic Mystery
- ► BRASS Scholars Spotlight Poster Presentations at T&T





▲ Wanderson Rezende surprises Dr. Pedro Piedra with the Diana Brown Memorial 2023 Mentor of the Year Award.



▲ The palatial former residence of Baroness and Baron di Portanova created the perfect setting for more than 145 guests

A Message from the BRASS President

Dear BRASS Members and Supporters,

As we near the holiday season, the BRASS family is grateful to so many:

- Our donors for their continued, dedicated support of our BRASS scholars, who continue
 to be a part of a multitude of outstanding contributions in research in the Baylor College of
 Medicine Graduate School of Biomedical Sciences.
- Houston Livestock Show and Rodeo for their continued belief in BRASS with their \$60,000 donation to support and fund the Scholars' equipment to carry out their research, trips for them to attend seminars and present their lab findings, and funding to support community outreach.
- Jack and Judi Johnson for contributing an additional \$50,000 to the David and Eula
 Wintermann Foundation BRASS Scholar Research Award Endowment, which funds
 discretionary research stipends for each BRASS scholar while they work to achieve their Ph.D.'s.
- The BRASS Executive Committee for their continued support and insight
- Event underwriting from Myra Wilson, Carolyn Faulk, Don Jordan, Ed McMahon and Jo Ann Petersen.

With great enthusiasm we welcomed our four 2023-2024 scholars who were recently selected on Sept. 19 from a very impressive slate of 34 applicants. They were introduced at our Scholar Reception on October 23, 2023.

- ► Michal Tyrlik M.D./Ph.D. candidate
- ▶ Paige Ireland Hall Ph.D. candidate
- Eric Joshua Garcia M.D./Ph.D. candidate
 Julia Enterria Rosales Ph.D. candidate

These outstanding scientists bring us to a total of 87 scholars since our inception in 1995. BRASS Scholarships are increasingly effective in attracting the best and the brightest students who add to the College's ever-growing expertise in biomedical research. We could not do it without your support, so it is with heartfelt appreciation I once again say THANK YOU!

The BRASS Board and I are grateful for your continued belief in our mission and your ongoing support. ~ Elsie



▲ Elsie Eckert with Stella

2023 BRASS Tea & Toddies - Celebrating 28 Years

An Amazing Evening of Friends, Fun and Fond Memories

ay 11, 2023, Baylor Research Advocates for Student Scientists once again raised their glasses to toast the bright future of biomedical research and our BRASS Scholars' ground breaking research at our annual Tea & Toddies fundraiser. This 28th anniversary celebration for BRASS was held at the magnificent former residence of the Baron and Baroness di Portnova, currently owned by George DeMontrond who graciously welcomed more than 135 guests for an evening of fun and enjoyment.

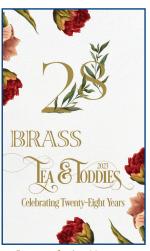
More than \$35,000 was raised to help support and further the BRASS mission of "providing funding and support for the best and brightest students" through endowed scholarships and research awards.



Twenty-one (21) past and current BRASS Scholars enjoyed the 28th BRASS anniversary celebration.



▲ Ed McMahon presents Linda Zhang a \$1,500 check for being named the Don D. Jordan 2023 Outstanding Trailblazer Scientist.



▲ It was a festive 28-year Tea & Toddies celebration.



▲ Four BRASS Scholars presented scientific posters.



▲ Myra Wilson and Linda Kuykendall surprise Lisa Chandler Brown when they announce she has been selected as the 2023 BRASS Angel of the Year.

Dr. Pedro A. Piedra was joyously awarded the **Diana Brown Memorial Mentor of the Year Award** by BRASS Scholar **Wanderson Rezende** and our very own BRASS treasurer **Lisa Chandler Brown** was named as our **2023 Angel of the Year**. Both awards were richly deserved by the recipients.

BRASS Scholar Linda Zhang was selected to receive the first annual Don D. Jordan BRASS Outstanding Trailblazer Scientist award for being a pioneer in her endeavors and opening up new lines of research and technology; for being a groundbreaker and innovator, creating new breakthroughs and exemplifying the traits of an outstanding future leader with unparalleled academic performance, research excellence, publications, fellowships, grants, patents, and presentations; combined with citizenship encompassing past honors, awards teaching, tutoring, community service and outreach.

2023 BRASS Tea & Toddies - Celebrating 28 Years









































Celebrating 28 Years













- 1. Lisa and Michael O'Leary
- 2. Françoise Marks and Ed Smith
- 3. Kenny Rogers, Carl Kuykendall and Dr. David Wright
- 4. Ed McMahon, Mary Ellen and Rod Crosby
- 5. Wanderson Rezende and Robin Simon
- 6. Jo Ann Petersen and Mike Taylor
- Tamara Bonar and Laura Owen Pio
- 8. Janet Hansen and Lynn Kamin
- Linda and Carl Kuykendall
- 10. Warner Roberts, Elsie Eckert, Sidney and Judi McGee
- 11. Ed McMahon, Judi and Jack Johnson
- 12. Araly and Chuck Simmons, George DeMotrond, Myra Wilson and Dr. Gayle Slaughter
- 13. Susan Pedersen and Debby Leighton
- 14. Guests enjoy a sumptuous buffet

- 15. Michael Bickham and Lenny Matazewski
- 16. Classical guitarists entertained
- 17. Dr. James and Tamara Kloz Bonar
- 18. Elsie Eckert, Dr. Steve Wexler and Pamela George
- 19. Emily Schultz, Dr. Pedro Piedra and Dr. Fred Pereria
- 20. Françoise and Peter VanDerlofske
- 21. Matthew Penna and Molly Marohi
- 22. Apoorva Thatavarty and Malcolm McDonald
- 23. Juan Romero and Melissa Castro
- 24. Joshua Korb and English Laserna
- 25. Sarah Waldvogel and Phillip Burkhardt
- 26. Wanderson Rezende and Eric Bradley

BRASS Scholars and Their Mentors















- 27. Kat Kabotyanski and Dr. Sameer Sheth
- 28. Dr. Pedro Piedra and Emily Schultz
- 29. Sharon Bright Amanya and Dr. William Decker
- 30. Dr. Gloria Echeverria and Mariah Berner 33. Vicki Mercado and Dr. Kathryn Patras
- 31. Sarah Waldvogel, Linda Zhang, Dr. Peggy Goodell and Chiraag Kapadia
- 32. Ashley Hayden and Dr. Rachel Arey

BRASS Scholars Spotlight

Poster Presentations Add Scientific Interest to T&T







▲ Juan Romero M.D./Ph.D. (2020-2021)



▲ Mariah Berner, Ph.D. (2020-2021)



▲ Sarah Herzog Ph.D. (2018-2019)

dding insight and intellectual interest, once again, this year to our Tea & Toddies fundraiser, four BRASS scholars set up their scientific posters and graciously shared with guests what their research entailed as well as their findings.

A scientific poster is a popular method of succinctly presenting research findings at meetings and conferences. Posters summarize a scholar's research project using a mix of text and diagrams/images.

A poster allows a scholar to condense the aims, methods, results and conclusions of their research into a portable form of presentation. It also allows interested peers to understand their research in their absence, simply by reading through their poster. Presenting research in the form of a poster at meetings or conferences can also boost the scholar's CV as it shows potential employers that they are motivated and creative.

Defenses, Graduations, and Moving Forward

his past spring and summer, BRASS scholars Toyosi Adewunmi and Wanderson Rezende both defended and received their PhDs. Toyosi's dissertation was "The Targeted Inhibition of LncRNA Malat1 alters the tumor immune microenvironment in P53 null tumor models of Triple Negative Breast Cancer." She has now joined Dr. Kristen Pauken's lab at MD Anderson and will be studying ways to improve immunotherapy response and more specifically focusing on T cell trafficking and function after checkpoint inhibition.

Wanderson's defense focused on the Respiratory Synctial Virus(RSV) and he has joined a lab at Vanderbilt University as a lead staff scientist of Infectious Diseases.

Matthew Penna received his PhD in May and has returned to medical school. He will be applying for his residency training in dermatology. Rowland Pettitt and Zachary Kadow both graduated and received their Md/PhDs in May. Rowland will commence his residency training in Clinical Pathology at Mass General Brigham. Zach will complete his residency training in pathology at Vanderbilt University.



▲ Toyosi Adewunmi Ph.D. (2017-2018)



► Wanderson Rezender Ph.D. (2015-2016)



▲ Matthew Penna M.D., Ph.D. (2018-2019)



▲ Rowland Pettitt M.D., Ph.D., M.B.A. (2019-2020)



Zachary Kadow M.D., Ph.D. (2016-2017)

BRASS Highlights



▲ Dr. Hsiao-Tuan Chao

2004 BRASS Scholar Solves Genetic Mystery

While working as a postdoctoral research fellow at BCM in the Jan and Dan Duncan Neurological Research Institute in 2016, Dr. Hsiao-Tuan Chao (2004 BRASS Scholar) and her colleagues identified an exceedingly rare genetic disorder affecting fewer than 1,000 people worldwide. Six years later, she shared her groundbreaking research of EBF3-related Hypotonia Ataxia Developmental Delays Syndrome (HADDS) at the 2022 HADDS Conference held by Texas Children's Hospital and Baylor.

Attended by several children and young adults from across the globe affected by the mutation in the EBF3 gene, the conference became a place not only of learning but also

of healing. For the first time in their lives, they had a diagnosis, a community, and a support system. Though HADDS ranges in severity, common symptoms include autism-like tendencies; developmental delays, including with talking and walking; balance and coordination issues; difficulties expressing emotion; and a high pain tolerance. Many babies with HADDS have difficulty laughing or smiling and do not cry when they're injured or getting injections, Chao said.

In fact, the lack of smiling, laughing, crying and delays in speaking were early signs of the disorder in several of her patients. The first case assigned to her during her residency in Dr. Hugo Bellen's lab at Baylor was Chase Morita, a boy from Hawaii who was part of a clinical study through the National Institutes of Health's Undiagnosed Diseases Network. He was bright but had difficulty talking and smiling as a child, Chao said. Chase's genetic sequencing showed several abnormalities, including a change in the EBF3 gene, which is important for brain development, serving as a "master regulator" to other genes, Chao said.

"It's basically controlling which switches need to flip on and which switches need to flip off so that your cells develop the way they're supposed to," she said. "If you throw it off even a little bit, it kind of has a cascade effect."

Chao and her colleague, Dr. Michael Wangler, reached out to Baylor Genetics to ask whether they had seen anyone else with a mutation in the same gene. The lab pointed them to two more children, including a five-year-old girl from Houston. After meeting her, Chao realized that one of her own patients, Colette LeMaire, who was less than one year old and lived in Houston, likely had the same condition. Colette's parents noticed early on that their daughter's eyes weren't focusing and that she never laughed or cried, but an MRI, Lumbar puncture and blood tests didn't offer an answer. Collette eventually took a genetic test, and the results showed a mutation in her EBF3 gene. Chao delivered the news that Collette had HADDS in 2016, months before she and her colleagues publicly revealed their discovery of the disorder.

Collette was delayed in learning to walk and talk, and barely spoke until age four. She's now seven years old and speaking at an average level for her age. She's also reading at a second-grade level, even though she just finished kindergarten.

Chao now leads her own lab at the Duncan NRI, where she and her team continue to study the EBF3 gene. She believes it could provide better understanding of how the brain works, which could help researchers understand how neurodevelopmental disorders occur.

And lucky for us both she and her husband Mingshan Xue, who also leads his own lab at Baylor College of Medicine are active members of BRASS.

†Scholar Selection

Committee Member

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In Memory of Waldo Luedemann Myra Wilson

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Myra Wilson and Robin Simon
Christine Kase