The Keystone Symposia Fellows Program is a key initiative in the organization’s Diversity in Life Science (DLSP) portfolio, designed to advance diversity in leadership positions across the biomedical workforce. The Fellows Program engages early-career scientists from underrepresented (UR) and disadvantaged backgrounds in the U.S. in leadership training and mentorship at this critical stage of career development. While these individuals are all accomplished scientists, there are many challenges as they embark on their independent research program. We provide guidance in several areas to optimize their success. These areas include: how to hire and mentor their lab members, grant and publication strategies, how to form productive collaborations, and how to navigate other work/life responsibilities. This one-year program is designed around key programmatic elements to enhance confidence, leadership skills, networking opportunities, and visibility of Fellows within the biological and biomedical research community, and position Fellows to successfully pursue leadership and decision-making roles. Fellows are paired with a distinguished member of our Scientific Advisory Board (SAB) for one-on-one mentorship throughout the year to enable them to achieve their career goals, and participate in monthly virtual group sessions tailored to address early-career challenges. In addition, Fellows participate in twice-yearly meetings with our SAB where they engage with ~100 scientific thought-leaders to discuss the frontiers of biomedical research. At these meetings, Fellows work with our SAB members to curate a conference portfolio each year that represents the state-of-the-art research in the biomedical sciences.

Since its inception in 2009, the Fellows Program has enhanced the professional and career development of 88 early-career investigators. Graduates of the Keystone Symposia Fellows Program become members of a unique cadre of scientists who are well-connected, knowledgeable and capable members of the life sciences community, and active proponents of inclusive practice in life science research.

Click to learn more about the Fellows Program. Or visit, bit.ly/3KZOQJ6
2023 FELLOWS UPDATE

This past year (fiscal year July 1, 2022 - June 30, 2023), Keystone Symposia welcomed 10 new Fellows who represent a range of scientific research interests, and all come from populations that have been shown to be underrepresented in biomedical research. The Class of 2023 is comprised of persons of color, those with disabilities, women in biotech, and those originally from low-and-middle-income countries.

In January, incoming Fellows participated in their first Keystone Symposia Scientific Advisory Board meeting in Boulder, Colorado, where they also had the opportunity to connect with several graduating 2022 Fellows. In all, a total of 15 Fellows from the 2022 and 2023 cohorts attended. Fellows’ activities kicked off with a Pre-SAB “Speed Dating” Session with the goal of introducing the Fellows to one another, exploring shared research interests, and discovering potential future collaborators. SAB members Stacey Finley and Manu Platt joined the conversation, sharing their own experiences and lessons learned as Keystone Fellows (Class of 2016 and 2012, respectively), imparting their wisdom on how to make the most out of the experience for the rising class. The session served both as an icebreaker and valuable community-building opportunity that set an inclusive tone for the Scientific Advisory Board sessions that followed.

On day two, Fellows were immersed in SAB committee discussions with academic and industry field leaders to determine the most promising emerging research areas for Keystone Symposia’s 2025 conference portfolio. To conclude the day, graduating Fellows presented Lightning Talks on their research to the SAB and Board of Directors, to cap off their Fellows Program experience and receive feedback from this esteemed group:

- **Alexander Cartagena**
  *Hearing Mechanobiology: Implications for Deafness and Therapeutics*

- **Thomas Martinez**
  *Discovery and Characterization of Microproteins*

- **Xavier Revelo**
  *Inflammatory Mechanisms of Cardiometabolic Disease*

- **Quinton Smith**
  *The Integrated Developmental Design Lab*

- **Christie Towers**
  *Mechanisms to Circumvent Autophagy Inhibition in Cancer*

“To me, what was most valuable was the opportunity to meet in person with renowned scientists from multiple disciplines. These 1-1 interactions significantly increased my confidence in my scientific/professional value and skills. Also, this program significantly enhanced my professional network.”

**Alexander Cartagena-Rivera**
National Institute of Biomedical Imaging and Bioengineering/NIH
Class of 2022

Click here to read more about the Class of 2022.
Or visit, bit.ly/3Z8Bv6V

DID YOU KNOW
Fellows’ LinkedIn and X (formerly Twitter) handles can be found in the Fellows Directory. Be sure to follow these rising stars!
In June, the 2023 class returned to Boulder for their second SAB meeting experience, which kicked off with Keystone Symposia’s 50th anniversary dinner, celebrating the organization’s many meaningful accomplishments in accelerating scientific discovery, fostering community and career development over the past 50 years. Cherié Butts (Fellows Class of 2009) was among those honored, pictured at top left being presented with the Keystone Symposia Distinguished Service Award by President and CEO, Debbie Johnson.

On day two, Fellows were once again embedded in intensive committee discussions to peer review conference proposals in detail and shape draft programs according to Keystone Symposia’s highest standards for quality. In reviewing programs, Fellows learn the key factors that distinguish our internationally acclaimed conferences, including: scientific quality and scope; inclusion of diverse backgrounds and research approaches; a balance of academic and industry perspectives; and the integration of basic, translational and clinical science. The June SAB meeting concluded with the 2023 Fellows’ Lightning Talk presentations:

- **David Alagpulinsa** Hematopoiesis in Type 1 Diabetes (T1D) and Cardiometabolic Disease (CVD)
- **Esperanza Arias-Perez** Selective Autophagy in Liver Pathophysiology
- **Samira Asgari** Human Genomics of Infection & Immunity
- **Adebowale (Wale) Bamidele** Metabolic Dysfunction Governs Regulatory T Cell Inflammatory Response during Inflammatory Bowel Disease
- **Uri Manor** Organelle Dynamics in Health and Disease
- **Sonya Neal** Small Molecule Discovery of Rhomboid Inhibitors with Anti-Tumor Activities
- **Henry Ruiz** Advanced Glycation End Products (AGEs): The “Common Soil” in Metabolic Disease
- **Melody Smith** Interrogating the Impact of the Intestinal Microbiome on CAR T cell Therapy
- **Lívia Yamashiro** Restoring Anti-Tumor Immune Functions with a Dual A2aR/A2bR Antagonist – Etrumadenant
- **Zapporah Young** Selective Autophagy: The Next Frontier in Targeted Protein Degradation

“The Keystone Fellows program was a transformative experience that helped build a network of intentional mentors and colleagues as a support system. I gained the knowledge, insights, and relationships that will shape my academic journey for years to come.”

*Sonya Neal | University of California, San Diego | Class of 2023*
Members of our Board of Directors, Scientific Advisory Board, alumni Fellows, our CEO and CSO, and other key thought-leaders in the Keystone Symposia community are all invited to share their expertise and lessons learned with the current Fellows. Some of the topics covered with the 2023 Fellows included:

- Promoting Your Science & Gaining Visibility as an Independent PI
- Building a Positive and Productive Lab Culture
- Culture Matters: Implications of a Scientific Identity with internationally acclaimed expert on inclusive leadership, Dr. Brenda Allen (former Vice Chancellor for Diversity and Inclusion at the University of Colorado Denver and the Anschutz Medical Campus)
- Cultivating Successful Scientific Collaborations
- Publication Strategies & Demystifying the Editorial Process
- Grant Strategies
- Mentorship with National Research Mentoring Network Master Facilitator, Dr. Bruce Birren (Director of the Genomic Center for Infectious Diseases at the Broad Institute of MIT and Harvard)

Fellows Fridays are monthly virtual group discussions designed to address unique challenges faced at this pivotal early-career stage, and to provide strategies and skills to successfully pursue professional goals.

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- Cultivating Successful Scientific Collaborations
- Publication Strategies & Demystifying the Editorial Process
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FELLOWS AMONG KEYSTONE SYMPOSIA LEADERSHIP

Fellow alumni remain integral members of the Keystone Symposia community, serving as conference speakers and organizers, as mentors to current Fellows, and as strategic advisors on our Board of Directors and Scientific Advisory Board, thereby further advancing our mission to promote inclusive excellence in the life sciences.

Five Keystone Symposia Fellow alumni have served leadership roles on Keystone Symposia’s Board of Directors (BoD) and Scientific Advisory Board (SAB) over the years.

CHERIÉ BUTTS
Class of 2009
- BoD & SAB (2017-present)

KIZZMEKIA CORBETT
Class of 2018
- SAB (2022-present)

STACEY FINLEY
Class of 2016
- SAB (2015-2021)
  Has also been invited to ad hoc on the SAB. She has deferred her participation while she is on sabbatical with the prestigious École Polytechnique in Lausanne.

DE’BROSKI HERBERT
Class of 2009
- BoD (2020-2021)
- SAB (2015-2021)

MANU PLATT
Class of 2012
- SAB (2022-present)
In addition to supporting Fellows’ professional development, Fellows Fridays also provide critical networking experiences. These sessions connect Fellows with SAB members beyond their one-on-one mentors, providing additional expertise and perspectives from those who may not have been able to serve as formal mentors but have an interest in supporting the program and its participants. In addition, these informal meetings throughout the year lower the barriers for Fellows to engage with these thought-leaders at the in-person SAB meetings. We would like to thank the following Keystone Symposia board members for volunteering as Fellows Friday panelists in 2023: Pamela Ronald (Distinguished Professor of Plant Pathology, UC Davis), Chris Rhodes (Chief Scientist, AstraZeneca), Elizabeth Villa (Associate Professor and HHMI Investigator, UC San Diego), Richard DiMarchi (Distinguished Professor of Chemistry and Gill Chair in Biomolecular Sciences, Indiana University), Lee Niswander (Professor and Chair, University of Colorado Boulder).

Second, Fellows Fridays connect current Fellows with alumni as subject matter experts and potential peer mentors and collaborators. In 2023, the following alumni served as panelists to mentor this next generation of Fellows following in their footsteps: Glenn E. Simmons Jr. (Fellows class of 2017), Nicole LaRonde (2009), and De’Broski Herbert (2009). We are grateful to the dedicated members of Keystone Symposia’s Scientific Advisory Board and the Keystone Fellows Community who have contributed their time and expertise to mentoring and advising our Fellows!

“\textit{At the SAB, I had the opportunity to meet my Fellowship sponsor, Dr. Bei Zhang, as well as many other brilliant minds who offered priceless suggestions, comments, and advice. I feel grateful to be part of the extraordinary Keystone family!}”

Esperanza Arias-Perez | Albert Einstein College of Medicine | Class of 2023

FELLOWS ATTEST TO PROGRAM VALUE

We rely on the Fellows’ feedback and recommendations to continually improve our programing. In a post-program survey, the class of 2022 reported the following key benefits from their experience:

\begin{itemize}
  \item Increased professional competence (e.g., new skills in initiating collaborations, building relationships with colleagues, managing a lab)
  \item Enhanced confidence in pursuing career goals
  \item Expanded professional networks
  \item Access to a new professional support system
\end{itemize}

All plan to recommend the Fellows Program to eligible scientists in their network and are likewise committed to continued involvement in the Keystone Symposia Fellow Alumni network to assist future classes in advancing in their careers.
The 2023 conference season featured many Keystone Symposia Fellows and alumni, who shared their scientific expertise as invited speakers:

**DE’BROSKI HERBERT**
- **Myeloid Cells: Development, Diversity and Distinct Biological Roles** Speaker. Talk Title: “Myeloid Cell-Derived IL-33”

**VINICIO DE JESUS PEREZ**
Class of 2014
- **Pulmonary Hypertension: State of the Art and Therapeutic Opportunities** Speaker & Career Roundtable Panelist. Talk Title: “Restoring Normal Microvessels in Pulmonary Hypertension”

**SAMIRA MUSAH**
Class of 2018
- **Organoids as Models of Development and Disease, and their Impact on Drug Discovery** Speaker & Chair. Talk Title: “Next-Gen Kidney Models”
- **Understanding Developmental Disorders in the Genomic Age** Speaker. Talk Title: “Organs on Chips”

**TAMIA HARRIS-TRYON**
Class of 2020
- **The Human Microbiome: Ecology and Evolution** Speaker & Career Roundtable Panelist. Talk Title: “Small Proline-rich Proteins (SPRRs) are Epidermally Produced Antimicrobial Proteins that Defend the Cutaneous Barrier by Direct Bacterial Membrane Disruption”

**RACHEL ROTH FLACH**
Class of 2020
- **Mitochondria, Metabolism and Heart** Speaker, Chair & Career Roundtable Panelist. Talk Title: “Metabolic Targets for Heart Failure”
- **Heart Failure: All Cells Considered** Speaker. Talk Title: “Metabolic Targets for Heart Failure”

**XAVIER REVELO**
Class of 2022
- **Inter Organ Crosstalk in Non-Alcoholic Steatohepatitis (NASH)** Workshop Presenter. Talk Title: “Adaptive Immunity in the Pathogenesis of NASH”
- **Heart Failure: Mechanisms and Therapies** Short Talk Title: “Cardiac Resident Macrophages Prevent Fibrosis and Stimulate Angiogenesis”
- **Metabolic and Molecular Mechanisms of NAFLD/NASH** Short Talk & Career Roundtable Panelist. Talk Title: “Lipid-associated Macrophages Mediate the Anti-inflammatory Effects of Bariatric Surgery against NASH”

**CHRISTIE TOWERS**
Class of 2022
- **Tumor Metabolism** Speaker & Career Roundtable Panelist. Talk Title: “Circumventing Autophagy Inhibition in Cancer Cells”

**SONYA NEAL**
Class of 2023
- **Ubiquitin Biology** Speaker, Chair & Career Roundtable Panelist. Talk Title: “Derlins Employ a Chaperone-like Function for Resolving Misfolded Membrane Protein Stress”

In total, eight Fellows served as a Career Roundtable panelists this season, including Fellows Roslyn Crowder (Class of 2018) and Ramon (Ray) Whitson (Class of 2020), as well as those listed above. We’re extremely grateful for their engagement in these events to support trainees and expose them to diverse role models with unique perspectives on career development and the breadth of scientific opportunities available.

**STAY TUNED!**
Keystone Symposia Fellows will be stepping up to the podium at seven conferences in our 2024 conference season! Of note, Rachel Roth Flach (Class of 2020) is lead organizer for our upcoming conference on Unraveling Vascular Layers to Understand Human Disease, which will be held March 17-19, 2024 at the Buck Institute for Research on Aging. In addition, the SAB recently approved proposals by Kizzmekia Corbett (Class of 2018) and Quinton Smith (Class of 2022) who will lead our 2025 conference on Positive Strand RNA Viruses and Organoids, respectively (details coming soon).
FELLOWS IN THE NEWS

Keystone Symposia consistently works to amplify Fellows’ accomplishments to extend their reach and impacts. Check out the hashtag #KSFellows for social media highlights! Below we feature Fellows in the News with a sampling of achievements by our newest members, the 2023 Fellows.

DAVID ALAGPULINSA has accepted a faculty position as a Tenure-Track Assistant Professor at Yale University School of Medicine.

ESPERANZA ARIAS-PEREZ is one of two researchers selected to receive the 2023 Ceriale Junior Investigator Award, a grant supporting early-career women investigators whose research shows great promise. Esperanza also served as panelist and discussant leader at the “World Cancer Research Day” a celebration of Spanish cancer researchers working in the U.S. and part of the official visit of the Queen of Spain to New York City for the UN General Assembly.

SAMIRA ASGARI will be speaking at the 2023 CICB Symposium: Increasing Global Diversity in Genomics, a North Coast Conference on Precision Medicine presented by the Cleveland Institute for Computational Biology and the International Center for Health Genomics, Case Western Reserve University.

ADEBOWALE (WALE) BAMIDELE was granted a second year of support from the Kenneth Rainin Foundation Innovator Award for Inflammatory Bowel Disease Research. He also recently received a joint appointment as Assistant Professor of Medicine and Immunology at Mayo Clinic, and has been appointed to the Shriners Hospitals for Children Research Advisory Board.

URI MANOR has accepted a faculty position as Tenure-Track Assistant Professor and Faculty Director of the Goeddel Family Technology Sandbox at UC San Diego. He also was recently awarded his first NIH NIDCD R01 - Title: “Investigating the mechanisms of stereocilia length regulation and innovative strategies for restoring hearing”

SONYA NEAL was recently promoted to Associate Professor with tenure. She also has the honor of being among the inaugural HHMI Freeman Hrabowski Scholars, and received a Chan Zuckerberg Initiative Science Diversity Leadership award for her commitment to
THE FELLOWS PROGRAM CLASS OF 2023 WAS MADE POSSIBLE BY SUPPORT FROM OUR PROGRAM PARTNERS, INCLUDING:

The Burroughs Wellcome Fund, Eli Lilly and Company, the Bill & Melinda Gates Foundation, the Boettcher Foundation, The Endocrine Society, and individual gifts from Geoff Ginsburg, Stephanie Watts, Margaret Goodell, Bei Zhang and Mark Erion.

We welcome additional sponsors!
Please consider joining us in our mission to support the next generation of a diverse biomedical and life science workforce!

Contact DLSP@keystonesymposia.org
Donate to Keystone Symposia Diversity Programming at bit.ly/3PsQtSa

promoting equity, diversity and inclusion in science. In addition, Sonya will receive the ASCB WICB Junior Award for Excellence in Research at Cell Bio 2023 in December.

HENRY RUIZ was invited to be part of the NIH Early Career Reviewer (ECR) Program at the Center for Scientific Review. He will be joining the Cell Signaling and Molecular Endocrinology study section where he will gain first-hand experience with peer review.

MELODY SMITH was invited to give a Keynote Presentation at the 2023 European Hematology Association Congress in Frankfurt, Germany, and was also selected as a fellow for the Arthur and Sandra Irving Cancer Immunology Symposium. In addition, Melody has been named as a Strelzer Manasevit Research Program Scholar. This prestigious award provides research funding to one or two early career researchers per year in the field of allogeneic hematopoietic cell transplant and cell therapy.

ZAPPORAH YOUNG has been promoted to Senior Scientist I at Casma Therapeutics.

SUPPORT KEYSTONE SYMPOSIA

Keystone Symposium serves as a catalyst for the advancement of life-science research and medicine by convening the world’s leading researchers, clinicians, global health experts and other biomedical players to discuss and solve today’s greatest biomedical challenges. This mission is made possible by financial support from organizations and individuals throughout the global life science community. These generous gifts and grants fund many aspects of our meeting programs and scholarship opportunities, as a 501(c)(3) educational nonprofit organization.

LEARN MORE ABOUT SUPPORTING KEYSTONE SYMPOSIA
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