

# HUMAN BIOLOGY

STANFORD UNIVERSITY

DECEMBER 2022

## WELCOME TO BUILDING 20 INSIDE HUMBIO'S REFRESHED BUILDING

This summer, the Human Biology building (building 20) underwent renovations including flex classrooms, technology in meeting spaces to allow for hybrid meetings, and a new lactation space.

We could not be happier with the newly refreshed building and invite you all to check it out the next time you are on campus!



*Program Manager Linda Barghi and Director Lianne Kurina welcome you to the new Building 20!*



# BUILDING COMMUNITY: A LOOK AT STANFORD'S BLACK PRE-MEDICAL ORGANIZATION

A sense of community unites people. It brings people together to advocate for and to support one another. Being a part of a community can make people feel they are a part of something greater than themselves. It also provides a comfortable space for people to truly be themselves, and to connect with people who identify with one another or share common interests.

When asked to define the Stanford Black Pre-Medical Organization (SBPO) HumBio juniors, and SBPO co-presidents Grace Adebogun and Brianna Gamble immediately said “community.”

“It is a community where you can connect with people who have this shared experience of being Black both at Stanford and in general; who understand the hardships that come with being Black; and who recognize the barriers in medicine that we often have to experience,” Adebogun reflected. “This community has also made me think about how your different intersecting identities influence how you’re treated, how you learn, how you develop, and ultimately how you can use this knowledge and these experiences to make a difference.” Echoing this sentiment, Gamble said that “SBPO creates a community that is first, nourishing, and second provides helpful and relevant information, especially to underclassmen who may not be as versed in what they need to do.”



*SBPO students gather for a networking event (© SBPO)*

Since its inception over fifty years ago, SBPO has served three primary purposes. First, the group functions as a psychological, academic, and social support system. Second, the group hosts workshops, networking opportunities, and meetings. These events provide resources for the medical school application process and allow students to hear from Black medical professionals about their career journeys. Third, the group advocates for its members through regular communication and interactions between SBPO members and students and faculty at the medical school, and on behalf of the students with the university administration.

Over the years, students involved in SBPO have also participated in local and national pre-medical conferences. In its early days, students attended the Bay Area Black Pre-Medical Conference where they participated in workshops on topics such as the medical school admissions process, women in medicine, alternative health fields, and legislation concerning Black professionals in medicine. The conferences included notable guest speakers including San Francisco Assemblyman (and future mayor), Willie Brown Jr., and family practitioners like Dr. Ewart Brown, to share their experiences and discuss health care in the Black community. Today, SBPO members participate in the Annual Medical Education Conference (AMEC) hosted by the Student National Medical Association (SNMA). Each year, AMEC brings together underrepresented minority students from all levels of medical education to prepare them for their medical journeys and provide a space for them to network with one another and with physicians from across the country.

The Stanford Black Pre-Medical Organization, along with several other Black Student Voluntary Organizations (BVOs) at Stanford, was created in the wake of the civil rights movement in the Bay Area, the black power movement, and protests against the Vietnam war. In 1971, HumBio major Stephen Brooks '72 came together with Wesley Curry (Biology, '72) and Woodrow Myers (Biology, '73), to create a group that would address the needs of, and advocate for

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the goals of, Black pre-medical students. The group was formalized under the sponsorship of psychiatry professor William C. Dement and his wife, the then-Resident Fellows of Cedro, Stanford's first Black-themed house.

Today, SBPO continues to remain true to its original purpose under Adebogun and Gamble's leadership.

Adebogun and Gamble first got involved with SBPO during their freshman year at the height of the COVID-19 pandemic. Adebogun joined the organization in search of ways to get engaged and find a community at Stanford while learning remotely. Working as a freshman intern for the executive team under then co-presidents and HumBio students Ronald Clinton '21 and Ezra Yoseph '21, Adebogun shared her input on the types of virtual events and activities the group organized. She also served as the service co-chair during her sophomore year before becoming president as a junior this year.



© Courtesy of Grace Adebogun



© Courtesy of Brianna Gamble

Gamble also worked closely with Clinton and Yoseph as a logistics intern during her freshman year, to help organize events and get a behind-the-scenes look at how the club was run. In her sophomore year, she created the group's promotional materials as the outreach chair.

"[SBPO] is a community where you can connect with people who have this shared experience of being Black both at Stanford and in general; who understand the hardships that come with being Black; and who recognize the barriers in medicine that we often have to experience."

Adebogun and Gamble deeply valued the support and purpose that this network of students gave them during what was an extremely isolating time. As students return to fully in-person learning and college life, Adebogun and Gamble have jointly assumed the leadership role to provide that same support system to future members.

With approximately thirty members, many of whom are upperclassmen, increasing the group's reach, especially to underclassmen is a top priority for Adebogun and Gamble. "We're very small compared to other pre-med organizations so we're just trying to make sure we get our name out there and ensure that when we leave the organization it continues to create the community we all love," Adebogun commented. Gamble added that it has been a slight learning curve to go from having events entirely online during COVID to organizing in-person events and encouraging members to attend regularly. In addition to hosting regular talks with medical professionals and workshops such as the group's popular four-year planning workshop, Adebogun and Gamble also hope to send several representatives of SBPO to the Annual Medical Education Conference in Hartford, Connecticut this year to make their presence more known nationally.

"When I came to Stanford, I had this textbook-like definition of what

it is to be pre-med – everything from what you are going to major in, to the extracurricular activities you were involved in," Gamble reflected. "SBPO is so diverse and seeing all the different paths and extracurriculars that these students are involved in beyond being pre-med students has been eye-opening and my favorite part of our group."

As Adebogun and Gamble work to foster and grow the SBPO community, they are hopeful and excited for the future.

Note that SBPO is always looking for HumBio alumni and other Black medical professionals to share their experiences and journey with the students in the organization; Gamble encourages anyone interested in learning more about SBPO or connecting with current Black pre-med students to reach out to them at [bigamble@stanford.edu](mailto:bigamble@stanford.edu) and [adebogun@stanford.edu](mailto:adebogun@stanford.edu). Learn more about SBPO and see what they are up to on their [Instagram](#). ■



Students mingle and enjoy pizza at a recent SBPO gathering (© SBPO)

# STUDENT NEWS

## SBPO Voices: Ezra Yoseph '21

Since its inception, many of the students involved in SBPO have been HumBio majors, and many of those students have assumed key leadership roles. One such student is Ezra Yoseph '21. One of the 2020–2021 SBPO Presidents, Yoseph, who is originally from Ethiopia but came to Stanford from Las Vegas, NV, joined SBPO his freshman year for two main reasons—to learn more about diversity efforts in medicine, and to find mentors for support and guidance through his medical journey. During his sophomore and junior years, he served as the medical school liaison, working with Stanford Medical School and SNMA. At the height of the pandemic, Yoseph became co-president of the group with Ronald Clinton '21. Together they sought to maintain a sense of community among group members while remote. Most impressively, working together with his connections in Stanford Medicine and SNMA, Yoseph co-founded Underrepresented Minority Health Mentorship Circle (URM HMC), a program for underrepresented minorities in health focused on fostering mentorship and community during the pandemic (read more about this initiative [here](#)).



© Knight-Hennessy Scholars

Last May, Yoseph was one of two Human Biology students selected as a 2022 Knight-Hennessy Scholar. He is currently pursuing his MD at Stanford Medical School where he hopes to combine his interests in surgery, innovation, global health, and policy. Ultimately, he hopes to improve healthcare access and equity in underserved communities.



© Courtesy of Darryl Thompson

## Leading the Way: HumBio Student Elected President of ASSU

A singer, a teaching assistant, a soccer player, and a member of several community-based organizations, HumBio senior Darryl Thompson is all about the Stanford community. Most recently, he stepped into the role of President of the Associated Students of Stanford University (ASSU) for the 2022–2023 academic year.

As the university's student government, ASSU “represents the interests, needs, and perspectives of Stanford students at every level of decision-making within the university.” In addition to providing funding and support to more than five hundred volunteer organizations on campus, ASSU actively works to improve the quality of student life at Stanford.

Thompson first got involved with ASSU during his freshman year because foreign national directives threatened the status of international students like himself studying in the US. As an international student advocacy fellow on the executive cabinet, he worked closely with the cabinet directors to uphold international students' rights on campus. Their efforts contributed to the university signing an amicus brief and implementing other procedures that would protect international students from being pushed out of the US. For a “small freshman fellow,” Thompson was surprised to see the impact of his collaboration with the cabinet. Inspired and excited to continue making a difference in the community, he was elected to the undergraduate senate shortly after.

Today, Thompson leads the organization with great excitement. Hopeful that the worst of the COVID-19 pandemic is behind us, Thompson and his team are devoting their time and efforts to three core projects – promoting student well-being, empowering communities to thrive, and enhancing cohesion, visibility, and impact of the ASSU. Thompson has learned that sustainable change takes a great deal of time, making it easy for people to lose momentum. “I think it is important for all of us to be conscious of that notion, and so I've been trying to make sure that other people who get involved understand that, keep the end goal in mind, and continue to remain committed to the process to the end.” Navigating the complexity of an institution as large as Stanford is also a challenge. Even for veterans like himself, Thompson shared that it can be difficult to figure out whom to reach out to for what, but that

typically comes with time and experience, and in building trust with the administrators. With one quarter in their pockets, Thompson feels good about his team's progress toward their goals and is optimistic and excited for the good work and changes in the pipeline for the coming months.

Thompson's time in ASSU and Human Biology have influenced one another nicely. His HumBio coursework on the economics of healthcare systems and policy allows him to better understand the complexity of systems like ASSU and Stanford. Thompson explained that in understanding how different levers, players, and collaborations can achieve different outcomes in healthcare, he can figure out which of these levers or interactions will help his team achieve the change they want to see. Conversely, the leadership skills that Thompson learned in ASSU have pushed him to take HumBio classes that explore healthcare leadership and management and how to apply these leadership skills to the field he is most passionate about – healthcare.

After Stanford, Thompson plans to pursue a career in healthcare leadership, healthcare system management, or some adjacent area of health policy. In addition to looking at possibly doing a coterminal master's degree, he hopes to remain in the US and gain more experience in and exposure to different healthcare systems and contexts. With his passion and desire to improve healthcare outcomes back home in Ghana, Thompson's goal, in the long run, is to return home and work on solutions to healthcare inequities and outcomes in Ghana and on the African continent at large. "A big part of who I am is where I come from. I think that my experiences and education here in the US will give me a lot of options and leverage to go back home and get into spaces where I can make the change that I want to make or be a part of the problem-solving." No matter what direction he takes, he knows that he wants to be able to use the skills that HumBio and ASSU have equipped him with to make a real impact.

When he isn't busy leading ASSU or enjoying his studies in Human Biology, Thompson is busy with several other community-based programs and organizations on campus. For the last four years, he has participated in the Frosh 101 program in his freshmen dorm JRO (Junipero) as a student, co-leader of a class, teaching assistant, and Head TA. "It has been a very meaningful experience for me to pause and be intentional about reflection," he shared. "And I think it's been very impactful because I've gotten to see how I've evolved and changed through the lens of other students' experiences."

Thompson continues to work closely with the Bechtel International Center. He is also a long-time member of the African Students Community, which has served as a home away from home and a source of great friendships and support. As if these activities do not keep him busy enough, Thompson also recently joined the gospel choir, plays piano when he can, and is a huge fan of watching and playing soccer, or the "real football" as he says. Devoted to Manchester United and the English Premier League, Thompson will wake up at 4am just to cheer his team on. "I am definitely extremely busy but I think I am fueled by the sort of impact that you can make and just building and having fun with people in the community," he said. "That is my *thing!*" ■



© Courtesy of Darryl Thompson

## Thompson: From Ghana to Stanford

### 1. What made you want to come to Stanford?

I am originally from Ghana. Growing up, I saw a trend of people who did well in high school, left the country to pursue higher education, and reaped the benefits of a liberal arts education. In speaking with some of those people, and with the influence of my family who always pushed me to strive for the best, I decided to take a chance on schooling in the US. Thankfully it worked out and here I am 4 years later!

### 2. What is the biggest thing that you miss about home?

First, the food! It's flavorful and spicy, all that good stuff. There aren't too many Ghanaian restaurants here so some of the other Ghanaian students and I get together and cook. The second is the people! My nuclear family and many of my friends are back home, and you always want to be close to the people that you love.

### 3. Favorite Class in HumBio?

I think one of my top classes was *HumBio 123E, Health Economics* with Professor Rossin-Slater. I really enjoyed the final project of teaching others what we had learned through any media other than an essay. I created an Instagram page and talked about moral hazards.

### 4. What do you love about HumBio?

Anyone affiliated with HumBio knows this but HumBio is a **great** community of people. The way it is structured, you are taking the same classes with the same people and you are probably doing the same kind of extracurricular activities too. So it ends up being a wholesome space. I'm always proud to say that I'm a member of the HumBio community!

## Advocating for Underserved Communities Through Research

*Two exemplary HumBio seniors, the 2022 recipients of the Kirsten Frohnmayer Prize, challenge the status quo and aspire to make our world a better place through research*

Kirsten Frohnmayer '95 was a remarkable Human Biology graduate who died at the age of 24 from Fanconi anemia, a genetic disease causing bone marrow failure. Kirsten was described by her father as "a passionate reformer—from being a recycling fanatic to a vigorous and early champion of changing health-threatening habits such as smoking." To honor her life, her parents David and Lynn Frohnmayer created an annual award in her name that would inspire future generations of Human Biologists to improve the human condition and make a difference in the world. Each year, one to two juniors are selected who showcase exceptional scholarship and outstanding dedication to improving the lives of others.

Like Frohnmayer, Leah Balter '23 and Ahmed Moutwakil '23 both excel academically and have strong records of public service. And like Frohnmayer, these two award recipients use their intellectual curiosity to explore original research that will change the lives of two vulnerable populations: newborns in humanitarian settings (Moutwakil) and survivors of politically-sanctioned torture (Balter).

Moutwakil's natural choice of study was Human Biology because of his interest in both the natural and social sciences. Through his concentration in the physiology and psychology of well-being, Moutwakil explores the intersection between global health, pediatrics, and emergency medicine. His diverse interests and determination to improve the survival, health and well-being of underserved communities are in part driven by family trips to Sudan, the country his parents immigrated from. "I was shocked to see the extreme poverty and poor health outcomes," he reflected. "After seeing my family members suffer and feeling the privilege of being raised and living in America, I feel extremely driven to do something meaningful with my life. It also made me realize firsthand that healthcare is a human right but not something everyone has the privilege of enjoying."



© Courtesy of Ahmed Moutwakil

The motivation for Moutwakil's research was the lack of progress in decreasing neonatal mortality rates around the world. He was especially surprised that there was such limited literature on newborn and maternal care in humanitarian and conflict settings. "Interventions such as essential newborn care have been proven by the World Health Organization to be effective; however, implementation has been delayed for this vulnerable population and they are disproportionately suffering." Asking the question 'how is newborn care being implemented in areas of armed conflict', Moutwakil has conducted a systematic review of research relating to neonatal care to examine why maternal, newborn, and child health services in conflict settings are not being sufficiently provided. He hopes that the conclusions he draws can be used to improve the current levels of care that are provided both at and after birth in settings exposed to armed conflict.

Moutwakil has kept his eye on the bigger picture to keep him moving forward, never daunted by the challenging and, at times, overwhelming learning curve that occurs when starting research. The effort and skill with which he produced the global systematic review have resulted in his work being accepted at four local, national, and international conferences on pediatric and global health research. Reflecting on his research process, he said that his project has pushed him to grow and has led him to a great deal of self-discovery and self-learning. When needed, his mentors have consistently been there to lend an ear, provide feedback, or give a helping hand. Moutwakil shared that this experience would be nothing without the people he works with. He has learned that having a mentor who encourages and supports him throughout the entire research process is invaluable. "I loved the collaborative aspect of global health and working so closely with faculty and global child health experts," he said. "They are compassionate and inspiring people and I hope to be colleagues with them someday."

Looking to the future, Moutwakil plans to go to medical school and eventually do policy work or academic medicine where he could combine clinical medicine and research. Ultimately, he wants to pursue a career that allows him to directly advocate for the underserved.

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Balter became interested in health and human rights in high school, and she came to Stanford specifically to explore their intersection through the Human Biology program. As the daughter of two federal public defenders, she learned early that access, equity, and justice would be critical and intertwined facets of her future work, regardless of her chosen field. Through a concentration in trauma and health in conflict and refugee settings, Balter has studied health and healthcare across several disciplines and in different populations around the world.

Two summers ago, Balter interned at the Marjorie Kovler Center, a Chicago-based behavioral center for torture survivors. After engaging with survivors, Balter wanted to take a closer look at how torture survivors' trauma histories impact their physical health. "When we think about trauma and health, we're often thinking about psychological outcomes like PTSD, or depression. But there are also a lot of physical health outcomes that occur such as chronic diseases like high blood pressure," Balter explained. "I wanted to see if A) there are patterns of trauma history within a population of torture survivors, and B) whether or not those patterns in their histories have distinct physical health outcomes later on."

Balter conducted a retrospective chart review of over 500 survivors' torture and health histories. Using these data, she is identifying patterns among survivors, such as the likelihood that a survivor who underwent one torture event would experience other torture events. "I want to respect and maintain the dignity of survivors and their holistic experiences to ensure that they're not just reduced to a binary outcome of 'did you experience this or not,'" she shared. "It's really important to understand not just 'were you tortured or not' but to what extent, how many different



© Courtesy of Leah Balter

types of torture did you experience, what duration, and what frequency."

When asked what has been most challenging, Balter shared that it was emotionally wrenching to read through the hundreds of individuals' torture histories. She was also upset by the knowledge that many survivors also had brutal experiences in US immigration detention centers. Balter's work has taught her that while no number can ever quantify survivors' experiences, this kind of analysis is crucial for improving and increasing targeted interventions. Despite the emotional toll, Balter noted that what keeps her going is the web of dedicated social workers, psychologists, doctors, and case managers working at the center and the field more broadly, including one of Balter's research mentors, Stanford Professor of Psychiatry, Debra Kaysen, who has previously worked with torture survivors. "It's not just knowing that you're making a tangible difference in people's lives, but also that you are working alongside strong and compassionate individuals to support and lift survivors up," she said.

It is this incredible community of people that makes Balter want to continue working with survivors of torture post-Stanford. She hopes that her current and future research findings will raise awareness and push international organizations to protect and care for survivors of

torture. After Stanford, Balter hopes to go to medical school and work at the intersection of health and advocacy. Inspired by the doctors at Kovler, she is already planning to become certified through Physicians for Human Rights to perform medical forensic exams for asylum seekers to document evidence of torture.

Since its founding, the Frohnmayer prize has been awarded to forty-seven students. These students were not only at the top of their class academically, but they shared Kirsten's drive, her intellect, her kindness, and most importantly, her passion to make a difference in the world. Although Kirsten is no longer with us, her spirit lives on in the incredible drive and compassion of these students who have each gone on to stellar careers as doctors, government officials, professors, and public health leaders. ■

## Call for HumBio Alumni Mentors

HumBio is looking for alumni who enjoy connecting with small groups of current HumBio students to share career wisdom. We are particularly looking for alumni who are available to participate in person on campus in the upcoming winter and spring quarters (January-May).

If you are interested in participating in the winter or spring quarters or in the future, please fill out this [brief form](#).



# ALUMNI NEWS



© Courtesy of Rachel Becker

## Rachel Becker '11 Awarded Rita Schmidt Sudman Award

Congratulations to Rachel Becker '11 who was awarded the Water Education Foundation's first-ever Rita Schmidt Sudman Award for Excellence in Water Journalism. Named after Rita Schmidt Sudman, the Foundation's former executive director who led the Foundation for nearly 35 years, the award honors a journalist whose outstanding work illuminates complicated water issues in California and the West.

Becker covers California's complex water challenges and water policy issues for CalMatters, a non-profit news outlet that reports on California's policy and politics. In 2021, Rachel won first place for Outstanding Beat Reporting from the Society of

Environmental Journalists, and in 2022, CalMatters' drought coverage was a finalist for the Online Journalism Awards in Explanatory Reporting. She was also a featured guest for our virtual event this fall, *A Conversation with Professor Joe Nation and Environment Reporter Rachel Becker*.

Watch the event recording now [here](#). Read the full announcement [here](#).

## Erika Moseson '02: Air Health Our Health



© AirHealthOurHealth

Check out *Air Health Our Health*, a podcast series developed by Dr. Erika Moseson '02 to discuss the relationship between healthy air,

healthy people, and a healthy economy.

Moseson is a full-time pulmonary and critical care physician interested in healthy air for our communities. Having worked with countless patients who are vulnerable to air pollution and poor air quality, Moseson created this podcast as a space to discuss issues around air health in the hopes of raising awareness, spreading knowledge, and ultimately, keeping people "from landing in [her] clinic or the ICU." Clean air saves lives! [Listen now here](#).

## Brooke Forde '21 named top-9 honoree for 2022 NCAA Woman of the Year

Brooke Forde '21 was named one of nine finalists for the 2022 NCAA Woman of the Year Award in mid-November. The award "recognizes female student-athletes who have completed their undergraduate studies and distinguished themselves throughout their collegiate careers in the areas of academic achievement, athletics excellence, community service, and leadership."

In August 2022, Forde was announced as the 2021-22 Pac-12 Woman of the Year for her distinguished collegiate career as an athlete, student, and community leader. She is Stanford's fourth winner of the award.

After completing her master's degree in epidemiology in June, Forde accepted a two-year assignment with the Peace Corps in rural Peru where she is working as a public health officer.

Congratulations Brooke on the impressive list of accomplishments!

Read the full announcement [here](#).



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© Jessica Lawson / Puma Elite Running

## Jessica Lawson '22 Becomes Pro-Runner for the Puma Elite Running Team

Congratulations to Jessica Lawson '22 who is chasing her running dreams with Puma. This Fall, Lawson was announced as the Puma Elite Running Team's newest member. She placed 10th at the Boston 10K for Women in her first race as a pro runner with a time of 33:55.

## Thomas Blair Matheson '84 Inducted into Stanford's Multicultural Hall of Fame



© Stanford Alumni Association

Congratulations to Thomas Blair Matheson '84 who was inducted into the Multicultural Hall of Fame during Reunion Homecoming this Fall. The Hall of Fame recognizes diverse alumni leaders for their exceptional service to the university and society. Matheson is the medical director of National Medical

Resources in North Dakota where he practices general surgery and emergency medicine with a specialization in trauma. He primarily serves Native American and rural populations and serves as a physician for the National American Indian Rodeo Association.

Read the full announcement and view the other inductees [here](#).

## Nicole Taylor '90 Named one of Forbes "50 over 50"

This fall, Nicole Taylor '90 was named one of Forbes' 50 Over 50. Taylor is recognized for her efforts to drive enduring community change and her leadership of the U.S.'s largest community foundation, the Silicon Valley Community Foundation. In 2021, the foundation distributed more than \$2 billion in grants to 6,000 nonprofits and organizations working in areas ranging from Covid-19 relief to police reform. Earlier this year, Taylor was recognized by The NonProfit Times as a 2022 NPT Power & Influence Top 50. Congratulations Nicole!



© Silicon Valley Community Foundation

Thank you to everyone who joined us at our Reunion Open House during Reunion Weekend in October. We had a wonderful time connecting with you all and playing HumBio bingo!



## Paul Fisher Named Editor in Chief for the Journal of Pediatrics



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Former Human Biology Director Paul Graham Fisher, MD, MHS, has been selected as the next Editor-in-Chief for The Journal of Pediatrics. Dr. Fisher has been Associate Editor for The Journal since 2014 and an editorial board member starting in 2006. Fisher's work uses

epidemiological methods to identify causes of and effective treatments for childhood brain tumors and other cancers, and he has broad academic interests across neurology, pediatrics, oncology, and epidemiology. The Journal of Pediatrics ([www.jpeds.com](http://www.jpeds.com)) is a monthly, international, peer-reviewed medical journal that advances research in pediatrics and its subspecialties. Dr. Fisher will begin his new term as Editor-in-Chief on January 1, 2023. But he will still enjoy teaching *HumBio 4A* in the Core and *HumBio 154C*, *Cancer Epidemiology!*

## Welcome Cherene Zingg, Human Biology's New Student Services Specialist

This October, we welcomed Cherene Zingg to the HumBio team as our new Student Services Specialist. Zingg joins the team from Saint Mary's College of California, where she was an Admissions Counselor for the Kalmanovitz School of Education.

Hailing from just down the street in Cupertino, Zingg enjoys photography, hiking, and traveling and is learning how to play the guitar in her free time. She is most looking forward to working with students, faculty, and staff and becoming part of the HumBio community. We are so excited to have her join our team!



© Courtesy of Cherene Zingg

## New NIH Funding for Research on Sleep and Autism



Joachim Hallmayer  
© Stanford Profiles



Philippe Murrain  
© Stanford Profiles



Ruth O'Hara  
© Stanford Profiles

Congratulations to Drs. Joachim Hallmayer, Philippe Murrain, and Ruth O'Hara, who are part of the group of Stanford Medicine scientists who were recently awarded approximately \$10 million from the National Institutes of Health's Autism Centers of Excellence program. Led by principal investigator Professor of Psychiatry and Behavioral Sciences Joachim Hallmayer, the funding will support research on the relationship between sleep dysregulation and autism symptoms.

Ruth O'Hara, The Lowell W. and Josephine Q. Berry Professor of Psychiatry and Behavioral Sciences, and Senior Associate Dean for Research in the School of Medicine will

co-lead a study comparing sleep and brain activity in children with and without autism. Associate Professor of Psychiatry and Behavioral Sciences Philippe Murrain will examine brain-wide activity during sleep using zebrafish, including how sleep-inducing medications affect the brain.

In HumBio, Hallmayer and O'Hara co-teach the Human Biology upper division course, *HumBio 164, Autism Spectrum Disorder*. Murrain teaches *HumBio 161, The Neurobiology of Sleep*.

Read the full announcement [here](#). ■

## HumBio Says Thank You and Good Luck to Professor Don Barr

After 28 years of dedicated and tireless service, Professor Donald Barr, a HumBio hero, is retiring. Barr has been a valued member of the community as an extraordinary researcher, teacher, advocate, and mentor, and also as a leader in creating course offerings in the field of health policy. He has received numerous awards recognizing his efforts for the program, the university, and the local community.

Known for his extensive knowledge of healthcare and health policy, Barr first came to HumBio in the summer of 1994 from UCSF's School of Nursing, where he had taught a popular course on healthcare institutions. Soon after his arrival, he began teaching a similar class in Human Biology, *Healthcare in America*. An enrollment of 77 students in its first year was evidence of the critical need for this material focused on healthcare, health policy, and health disparities.

As student interest in the field of health policy grew, Barr played an instrumental role in furthering the health policy curricular offerings in Human Biology. With his guidance, one quarter of the B-side core was redeveloped to introduce students to

economic, social, and institutional factors that underlie environmental degradation and challenges facing the healthcare system. In addition to his *Healthcare in America* course, which he taught up through the 2021-22 academic year, Barr helped to create several other high-demand courses, including *American Health Policy*; *Biosocial Medicine - The Social, Psychological, and Biological Determinants of Behavior and Wellbeing*; and *Social Class, Race, Ethnicity, and Health*. Barr also played a key role in bringing in visiting scholars and faculty to share their experiences in government and policy organizations, like leading health policy expert Dr. Philip Lee who co-led the *American Health Policy* seminar.

In 2009, Barr joined the Division of Pediatrics at Stanford Medicine, where he taught a course on children's health disparities and sparked new conversations about health policy and the effects the system has on health disparities. Fernando Mendoza, Professor Emeritus of Pediatrics and Emeritus Associate Dean of Minority Advising and Programs at Stanford Medicine, reflected that what Barr brought to the table as a sociologist

was remarkable. "I think of [Barr] as the frontier scholar we needed. [Barr] made sure that we understood that the sociological perspective is important whenever we do healthcare, education in health, and



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most importantly, in our research." Echoing this, Lee Sanders, Associate Professor in Pediatrics and Health Policy, said that he admired Barr's ability to inspire others through his teaching, writing, and mentorship and as an advocate for his students, colleagues, and underserved members of the community. He called Barr a creative thinker and a prolific author who "provoked us to think harder about whether or not we are doing enough to advance the health of populations, particularly underserved communities."

Barr has been an outstanding teacher and an important mentor for students in Human Biology. According to longtime friend and colleague Bill Durham, Bing Professor Emeritus in Human Biology, students benefited from Barr's expertise and perspective as a practitioner. He admires how Barr fostered student learning about health issues in the classroom and in the way he integrated his dedication to the community and public health with his medical specialty and professional competence.

Throughout his teaching career, Barr taught more than 4,600

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© Linda A. Cicero / Stanford News Service

## Yvonne Maldonado Awarded 2023 APS John Howland Award

Congratulations to Dr. Yvonne (Bonnie) Maldonado who was awarded the 2023 American Pediatric Society John Howland Award in November. The highest honor bestowed by the APS, the award recognizes Maldonado's



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significant contributions to advancing child health and the profession of pediatrics.

“Throughout her career, Dr. Maldonado has dedicated herself to reducing health disparities that negatively affect child wellbeing,” said APS President Lisa Robinson, MD. “As a committed teacher and mentor, she led the development of numerous training and mentorship programs for learners, clinicians, and faculty. She has worked tirelessly to enhance diversity and inclusion in academic medicine and to foster a just culture in which all may flourish. She is a truly inspiring role model”.

Maldonado is the Senior Associate Dean of Faculty Development and Diversity, the Taube Professor of Global Health and Infectious Diseases, Professor of Pediatrics (Infectious Diseases) and Epidemiology and Population Health, and Chief of the Division of Pediatric Infectious Diseases at Stanford School of Medicine.

Maldonado's list of outstanding accomplishments is extensive. Most recently, she received the highest recognition from the American Academy of Pediatrics, the 2022 Clifford G. Grulee Award for outstanding service to the Academy. She also co-leads Stanford Medicine's newly formed committee addressing reproductive health equity in response to the overturning of *Roe v. Wade*.

In HumBio, Maldonado teaches the upper-division course *HumBio 124C, Global Child Health*, and advises and mentors students completing research and honors projects. Congratulations!

Read the full announcement [here](#). ■

students and individually mentored over 360 students to success, including Kamba Tshionyi '98, Monica Eneriz Wiemer '00, and Shira Lipton '01, who shared their memories of Barr.

When describing Barr's character, Tshionyi, now the Director of External Relations for Stanford's Haas Center for Public Service, immediately said “generous.” During times of confusion and uncertainty, he noted that Barr went above and beyond to find ways to support and guide him. He appreciated Barr's investment in his and his classmates' personal and professional success.

Eneriz Wiemer, a general pediatrician for the Palo Alto Medical Foundation and the Good Samaritan Hospital in San Jose, spoke with great fondness about her time working with Barr on her honors thesis and his continued mentorship to this day. From her days as a HumBio student to her pediatric fellowship at Stanford Medicine to becoming a doctor, Eneriz Wiemer appreciated that Barr always believed in and rooted for her. He has been a mentor, colleague, and friend, always willing to lend his support and advice in her journey.

“When you look back at your life, you identify those people who have had an immeasurable impact on the direction that your career and life went,” Eneriz Wiemer stated. “Dr. Barr is one of those people for me.”

Similarly, Lipton '01, a dermatologist at the Palo Alto Medical Foundation, expressed gratitude for Barr's strong support throughout her college experience and beyond. Lipton shared that she channeled her “inner Dr. Barr” during her work to help her daughter, Rosie, and all children with congenital eye anomalies get the access to treatment that they deserve. “I have Dr. Barr to thank for instilling in me, and countless others, the tenacity and life-long commitment to championing health policies that benefit those in greatest need.”

Barr has made a meaningful difference not only in the growth and continued success of the program but also in the lives of the countless students and colleagues with whom he has crossed paths. The Human Biology team thanks Don for everything he has done for HumBio, congratulates him on his well-deserved retirement, and wishes him the best on this next step in his journey! ■

## Lessons for Sustainability

### *Meet Tinker Visiting Professor Arturo Izurieta Valery, a Champion of Sustainability and Environmental Management in the Galápagos Islands*

This Fall, the HumBio community welcomed leading protected areas and sustainability expert Dr. Arturo Izurieta Valery for a two-quarter visit to Stanford. Izurieta came to campus via the Center for Latin American Studies (CLAS) as a Tinker Visiting Professor. Supported by the Edward Laroque Tinker Foundation, the Tinker Visiting Professorship brings distinguished scholars and researchers to Stanford to share their expert knowledge and research on a wide range of topics that concern Latin Americans.



© Courtesy of Arturo Izurieta

Izurieta grew up in Ecuador, one of the most biodiverse countries in the world, and he has always been interested in the science of ecology and biodiversity. After completing his Bachelor's degree in biology in 1991, he became the director of the Galápagos National Park and Marine Reserve. Izurieta then went on to get his Master's degree in Management and Conservation of Biodiversity at CATIE in Costa Rica and a PhD in Management of Rural and Natural Systems at the University of Queensland, Australia. He also conducted post-doctoral research at Charles Darwin University (Australia), where he evaluated the effectiveness of collaborative management of protected natural areas in the Northern Territory of Australia.

Izurieta's life's work has been to identify relevant and impactful ways to mitigate environmental problems and curb biodiversity loss at local, regional, and global levels. Over the last 30 years, he has worked to facilitate relations between government authorities, academic leaders, scientific researchers, and the local population in the Galápagos, mainland Ecuador, Australia, Malaysia, and Central America. His extensive experience leading and collaborating on strategic projects in research and management of protected areas and local communities in islands has made him a renowned leader in sustainability efforts. Among many other relevant roles, Izurieta was Director of the Galápagos National Park and Marine Reserve for a second time from 2013 to 2015, and Executive Director of the Charles Darwin Foundation for the Galápagos Islands from 2015 to 2020. He served as Advisor to the Presidency of the Galápagos Government Council (CGREG) where he worked on funding proposals, facilitating international cooperation, and fostering relationships with donors, agencies, and international NGOs. He has also consulted for countless organizations and agencies, including WildAid and World Wildlife Fund Central America and Galápagos.

Today, Izurieta works as an independent consultant on sustainability, natural resources, and protected areas. He also serves as the coordinator of the Oceans, Coasts, and Islands Working Group of [CEDENMA](#), an organization made up of several Ecuadorian non-profit groups and networks dedicated to the conservation, management, and rights of nature and the environment.



© Courtesy of Arturo Izurieta

When asked what he is most looking forward to while at Stanford, Izurieta said the new connections and opportunities. He hopes that opportunities for collaboration and partnership will arise from his new connections with Stanford faculty, researchers, students, and leaders in the fields of sustainability and environmental health, and justice.

For the last ten weeks, Izurieta has been focused on his new research identifying methodological approaches to understand Floreana Island. One of thirteen major islands in the Galápagos archipelago and the sixth-largest island in the Galápagos Archipelagos, Floreana is a sustainable socio-ecosystem. The island is home to a breathtaking array of unique or endemic living creatures and geological formations, both on land and below the waves. From whalers to pirates and baronesses, the island also has a rich history of human settlement. Sadly, the presence of humans and the introduction of aggressive mammals such as herbivores, cats, and rodents over the years has deeply altered and devastated the island's landscape. Izurieta believes that the

biodiversity restoration efforts currently being conducted by the Galápagos National Park, the local community, and key non-profit organizations will depend on a sustainable balance of social, ecological, and economic components.

*Continues on next page*

## **Shashank Joshi** **Appointed to Stanford** **VPUE Leadership Role**

Dr. Shashank Joshi, Professor (Teaching) of Psychiatry and Behavioral Sciences and, by courtesy, of Pediatrics, was appointed to the newly created faculty role, Assistant Vice Provost for Academic Well-Being for the Vice Provost for Undergraduate Education (VPUE) in September 2022. Joshi will advise the VPUE, Sarah Church, on the impact of academic stress on student well-being and will help advance an emerging set of academic well-being initiatives during the 2022-23 academic year and beyond.

Joshi's work focuses on school mental health, suicide prevention in school settings, cultural aspects of pediatric health, doctor-parent-teacher collaboration in medical care, and well-being promotion in youth and young adults. In HumBio, Joshi will start teaching the popular upper-division course, *HumBio 142M, Special Topics in Adolescent Mental Health*.



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Izurieta and his team of student research assistants have hosted think tank sessions and obtained input and feedback from environmental experts in the Stanford community and key stakeholders of the Galápagos, such as the Floreana Project Director and former Governor of the Galápagos Islands, to get a breadth of perspectives on sustainability efforts. They have also conducted a formal literature review on methodological approaches to measure sustainability efforts in terms of the social, environmental, and economic aspects of the island. At the end of the quarter, he expects to have built a comprehensive initial methodological approach and identified next steps for the research's second phase. Ultimately, Izurieta hopes to generate a methodological framework that can be used to build sustainability scenarios for Floreana.

In January, Izurieta will share his unique expertise with students by offering an exciting one-time-only class, *HumBio 122G, Parks and People on Islands: Lessons for Sustainability*. With a focus on the Galápagos Islands, students will be challenged to think critically about "the implications of sustainability in places that are isolated, fragile, and vulnerable to all anthropogenic activities." The first class unit will introduce students to the Galápagos, what makes the islands such a unique ecosystem, human history on the islands and its impact, and the current social system. Izurieta will then dive into the meaning and history of sustainability and current measures in place in the Galápagos and on a global scale. The third unit will build on students' understanding of sustainability and existing efforts in a discussion of Protected Areas and their role in sustainability and conservation. Izurieta is excited to engage, motivate, and inspire students to ask tough questions, think critically about environmental issues and sustainability, and hopefully, work together to come up with tangible solutions to the environmental and cultural threats affecting sustainability in the Galápagos and beyond. ■



*Izurieta shares his career journey in conservation and sustainability with students at this Fall's HumBio Spotlight event.*

## **New Diabetes Study Findings by Allan Reiss**

In August 2022, Dr. Allan Reiss and his colleagues published findings from a pilot study on diabetes treatment for teenagers. The six-month randomized controlled trial evaluated the use of automated treatment technology against routine care. The study revealed that using diabetes technology to monitor blood sugar levels is associated with better performance on cognitive tests. It also confirmed that brain structure and function are improved in teens with diabetes by having better control of their blood sugar. Reiss is the Howard C. Robbins Professor of Psychiatry and Behavioral Sciences and Professor of Radiology. He advises students pursuing honors research in the Human Biology program. Read the full news feature [here](#).



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© Courtesy of Anne Friedlander

## Your Body at Stanford: The Physiology of College

### A Glimpse into HumBio's Newest Course for 1st and 2nd-year Students

In the spring of 2022, Dr. Anne Friedlander piloted a new and important course – *HumBio 35, Your Body at Stanford: The Physiology of College*. The class introduces students who are early in their collegiate experience to a foundation of knowledge that can be used to optimize their physical and mental health and performance as they undergo this new way of living.

Friedlander, an Adjunct Professor in Human Biology, has been teaching in the program since 1997 and has developed several HumBio course offerings related to human performance including her extremely popular course, *HumBio 135, Exercise Physiology*.

Friedlander has long been interested in creating a physiology course for new college students. She believes that students could benefit from her advanced knowledge of and tools to encourage healthy aging. Open to all students, with or without science backgrounds, the course introduces students to applied physiology and provides them with knowledge that can be used to optimize their physical and academic performance. “A user manual for your body while you are at Stanford” is the motto!

Each week of the quarter is centered around a different topic within human health and performance. From nutrition and sleep to the physiology of stress and love, Friedlander was joined by guest lecturers who are experts in their fields to discuss how various behaviors and experiences common to the college experience can impact their health. Alongside the lecture content, Friedlander also provided students with information on the many campus resources available should students need them. “I hope that, by providing broad information about physiology and lifestyle early on in a student’s career, it will jump-start that learning process and provide scaffolding to make healthier decisions,” she said.

What makes Friedlander’s new class especially unique is that she has students put the course content to the test in their daily lives. Students learn the mechanisms behind their bodies’ responses to factors such as physical activity (or lack thereof), nutrition, sleep, stress, and caffeine, and then they engage in hands-on mini-experiments to deepen their understanding of each of these topics. For example, students were challenged to reflect on the substance(s) and behaviors they are addicted to – social media, caffeine, video games, sugar, etc. – and give them up for five days. At the end of the five days, they reflected on their ability to successfully abstain from the substance or behavior, the challenges they faced, and how withdrawing from these addictive substances influence the brain.

Students in the inaugural class loved Friedlander’s enthusiasm, her depth of knowledge, and her passion for the content of the course. They also appreciated how engaging, interesting, and applicable the course content was to their day-to-day lives and felt the class equipped them with the tools they needed to be effective college students. After a successful first round, the class will be offered again this spring. ■

## 5 Questions with Dr. Christopher Gardner on Tackling Food and Health Disparities While Saving the Planet

Check out this [feature](#) by Stanford’s Global Health team featuring Dr. Christopher Gardner. Gardner shares his perspective on “the way we can adapt our food systems to provide healthier food across a range of demographics – while also helping the planet.”

Gardner is the Rehnberg Farquhar Professor of Medicine at Stanford Medicine and the Director of Nutrition Studies at the Stanford Prevention Research Center. In Human Biology, Gardner teaches popular courses on human nutrition (*HumBio 130*) and food and society (*HumBio 166: Exploring Eating Behaviors in Social, Environmental, and Policy Context*) and has advised many students undertaking research in Human Biology.



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## Director's Message

Dear Human Biology Alumni,  
Students, and Friends,

I hope that this message finds you  
all well!

The last six months have been  
brimming with excitement and  
energy from a three-class  
in-person commencement  
celebration in June through a great  
autumn quarter. Our beloved  
Human Biology program  
continues to thrive.

This fall, we finished renovations  
in Building 20; I invite you all to  
come and check it out the next  
time you are on campus. It is  
lovely. As ever, it is a real privilege  
to continue to lead our mission of  
providing extraordinary  
interdisciplinary education to the  
next generation of students.

Please feel free to reach out to us -  
We love to hear from our  
community.

Wishing you all a wonderful  
holiday season and a happy new  
year.

All my best,

Lianne



### **Lianne Kurina, PhD**

*The Bing Director in Human Biology  
Associate Professor, Primary Care &  
Population Health  
Director, Stanford Military  
Data Repository*



DO YOU HAVE EXCITING NEWS OR STORIES YOU'D LIKE TO SHARE?

DO YOU WANT TO VOLUNTEER FOR A CAREER WORKSHOP ?

HUMBIO WANTS TO HEAR FROM YOU!

JOIN AND POST IN OUR LINKEDIN GROUP, SHARE YOUR STORIES

ON OUR WEBSITE, OR SEND IT TO [Jessy Frydenberg](mailto:Jessy.Frydenberg).



Get the latest updates and see what's happening in HumBio with our  
new and improved Instagram and Facebook pages! Tag  
**@stanfordhumbio** to be featured on our page.

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