

HUMAN BIOLOGY

STANFORD UNIVERSITY

AUGUST 2023

DECONSTRUCTING THE NEUROBIOLOGY OF SLEEP

HUMBIO PROFESSORS CHALLENGE STUDENTS TO THINK CRITICALLY ABOUT WHAT THEY KNOW (AND WHAT THEY DON'T) ABOUT SLEEP

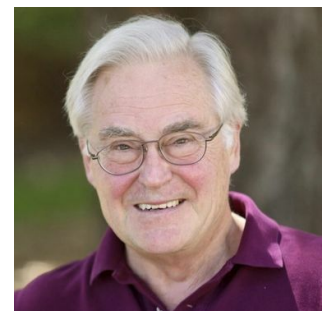


Professor Jamie Zeitzer (right) and students assess and discuss a classmate's final grant proposal

Sleep is an essential biological process that plays a fundamental role in maintaining our overall health and well-being. Despite its significance, and the fact that we spend approximately one-third of our lives sleeping, there is still much to be discovered, understood, and perhaps even relearned about sleep.

This is where Human Biology's popular long-standing upper-division course *HumBio 161: The Neurobiology of Sleep*, comes into play. The course was initially developed over twenty years ago by physiologist and biologist, Professor Craig Heller, who wanted to offer a course that explored sleep as an essential function, observed in some form across the entire animal kingdom, that involves nearly every aspect of an organism's biology.

Today, the course is taught by a diverse team of faculty members, each bringing their unique expertise to the table. Craig Heller, the Lorry I. Lokey Business Wire Professor of Human Biology, specializes in the physiological and functional aspects of sleep. Jamie Zeitzer, Professor of Psychiatry and Behavioral Science, shares his expertise in circadian rhythms and how light exposure and human behavior influence sleep patterns. Associate Professor Philippe Mourrain offers a developmental perspective on sleep, leveraging his knowledge of molecular genetics, developmental biology, and neurobiology. Together, this exceptional team equips students with a comprehensive understanding of sleep from multiple perspectives.



Professor Craig Heller

HumBio 161 covers a wide range of topics and studies, from the molecular basis of circadian rhythms to the primary functions of sleep to medical conditions like insomnia, parasomnia, and narcolepsy. The course offers something for everyone in the class. "You really get to experience this merging of the A and B-sides of HumBio," Zeitzer explained. "In one lecture we could be talking about electrophysiology or cognition and the next we will discuss experiences of sleep and sleep hallucinations and how these things are culturally infused." The course is structured around four main sections: exploring what we mean by "sleep" across the animal kingdom, examining the regulation of sleep, investigating the functions of sleep such as memory consolidation and neurodevelopment, and delving into sleep neuropathology and its impact on diseases.

The teaching team's primary objectives are not only to provide students with a biological perspective on the behavioral science of sleep but also to foster their skills as scientific researchers and communicators. Through weekly writing

Continues on next page

assignments and research readings, students learn how to read and interpret scientific literature effectively, formulate relevant questions, communicate their ideas, and apply their knowledge to various contexts. “We don’t want them to regurgitate the information on the slides, we want them to understand the concepts and to be able to tell us why they think the information is relevant or why they think the author is correct or incorrect,” Mourrain shared. “The focus is on providing them with the information and encouraging them to think critically and apply the scientific method.” The course culminates in a final grant proposal where students use the skills they have developed to conceptualize an innovative research experiment and write a convincing proposal that includes background information, methods, and expected results.

As with nearly all classes at Stanford, one of the notable challenges and highlights in teaching is the ever-expanding basis of knowledge in the field. Each quarter, the faculty must reassess their lectures and ask “is this still true?” and “is this still relevant?” The course content is adapted to incorporate new findings and species and to align with current student interests such as the environmental impacts on sleep, the ethics of sleep technology, and sleep in relation to social justice. For recent HumBio graduate, Sydney Nagy ‘23, who was the course’s TA for the past 3 renditions, this flexibility exemplifies the essence of a true HumBio class – “[HumBio 161] stays up to date with the latest information and research, showcases how things have changed over time, and really inspires the professors and students alike to reflect and ask questions across multiple fields.”

Given the diverse perspectives and expertise within the teaching team, open debates about the content are a



Associate Professor Philippe Mourrain and students discuss a grant proposal

"The class is very much an expansive thinking exercise. Oftentimes class will devolve into philosophical debates about the meaning of sleep and the research being discussed. [...] It's important for the students to interact and engage with one another in this way."

natural part of the course and the professors are not afraid to acknowledge that they do not possess all the answers when it comes to sleep. “The class is very much an expansive thinking exercise,” Heller commented. “Oftentimes class will devolve into philosophical debates about the meaning of sleep and the research being discussed. [...] It’s important for the students to interact and engage with one another in this way.”

In true Human Biology fashion, the class deconstructs students’ knowledge of sleep and challenges them to learn, question, and adapt their understanding of the behavioral and neurobiological aspects of sleep. “We break down many of the myths surrounding sleep, but it’s not like we reconstruct everything either because there are still so many gaps and changes in our knowledge and understanding of sleep,” Mourrain said. “So each class we share the pieces of the puzzle we do have and encourage the students to use these pieces to build their own interpretations.”



Congratulations to our 2023-24 Fulbright Scholars



This year we are proud to have 2 Fulbright Scholars, Leah Balter and Andrew Song. Balter will be heading to Norway where she will conduct a mixed methods study of Norway’s overlapping Covid-19 pandemic and Ukrainian refugee crisis responses. Song will move to the UK where he will pursue an

MSc in Bioinformatics and Theoretical Systems Biology at Imperial College London.

A total of 24 Stanford-affiliated Fulbright U.S. recipients will be studying and doing research across 17 different countries during the 2023-24 academic year. Congratulations!



2023 Stanford undergraduate Goldwater Scholars. From left to right: Emily Snell, Angelina Chan, Benjamin Przybocki, Xiaomian Yang, and Jenny Shi.

© Andrew Brodhead

Angelina Chan '24: 2023 Goldwater Scholar

Congratulations to Angelina Chan '24 who was named a 2023 Goldwater Scholar. The scholarship is awarded to outstanding sophomores and juniors intending to pursue basic research careers in the natural sciences, mathematics, or engineering. Chan aspires to earn an MD and a PhD in genetics and pursue a career as a physician-scientist. She hopes to study the regulation of gene expression at a molecular level, and mentor future generations of scientists.

This year, 5 Stanford undergraduates were named Goldwater Scholars. Learn about the Stanford recipients [here](#) and read more about the Goldwater Scholarship and see the full list of 2023 scholars [here](#).

Gabriela Escobar '23 Named a 2023-24 Tom Ford Fellow and Given the Marion Brummell Kenworthy Award for Student Innovation in Public Service



© Stanford Haas Center for Public Service

Congratulations to Gabriela Escobar '23 who was named a 2023-24 Tom Ford Fellow and was also given the 2023 Marion Brummell Kenworthy Award for Student Innovation in Public Service by the Stanford Haas Center for Public Service.

Escobar is committed to addressing the social inequities that underlie health inequities. As an undergraduate, she studied school-based nutrition programs for low-income communities and conducted honors thesis research on the correlation between healthcare barriers and disease outcomes in minority groups. She has also worked directly in community health as a medical department intern at both Stanford and UCSF. In Human Biology, she studied public health and data science to understand the interactions between social systems and health. As a Ford Fellow, she will work on public policy and health policy development with the ultimate goal of working to transform how healthcare systems serve the needs of historically-marginalized communities.

Learn more about the award and view the Haas Center's full list of award recipients [here](#).

The Tom Ford Fellowship in Philanthropy was created in 2001 to provide young professionals with intensive, mentored experiences in domestic foundations in order to educate Stanford graduates about the role of philanthropy in society and encourage them to enter the field.

The Marion Brummell Kenworthy Award for Student Innovation in Public Service is given annually and recognizes and supports outstanding young leaders who create innovative solutions to pressing problems and lead others to take action in public service.



© Stanford Profiles

Jeremy Goldhaber-Fiebert: New Leadership Role & Research Findings

Earlier this year, [Dr. Jeremy Goldhaber-Fiebert](#) was appointed to the Methodology Committee of the Patient-Centered Outcomes Research Institute (PCORI). PCORI is an independent research organization that provides patients and other stakeholders with comparative information on medical treatments, services, and health practices and supports them in making more informed decisions. Read the formal committee announcement [here](#).

Goldhaber-Fiebert and his colleagues also recently published new results in *Obstetrics and Gynecology* on the financial impact for hospitals of being equipped with a toolkit for treating obstetric hemorrhage. The study revealed that hospitals using the toolkit not only saved more patients' lives but were also more cost-effective.

Goldhaber-Fiebert is a professor of health policy and a core faculty member in the Centers for Health Policy and Primary Care and Outcomes Research. He teaches the upper division Human Biology course, *HumBio 154D, Models for Understanding and Controlling Global Infectious Diseases*. Read the full study [here](#).

#DoBoth: Changing the Narrative for Athletes in Medicine

Human Biology is the most common major for declared student-athletes at Stanford, according to data published in an [article](#) by *The Stanford Daily*. Like many of their classmates, student-athletes are often drawn to HumBio's broad introduction to the biological and behavioral sciences and appreciate the freedom and flexibility they have in developing a course of study based on their interests and aspirations. The program also provides a space for these students to better understand the human body and apply it to their own lives and performances within their respective sports.

The desire for a flexible and interdisciplinary education rings true for HumBio Class of 2020 graduates, Kathryn Anderson and Jacie Lemos. A varsity beach volleyball player at the time, Anderson chose HumBio so that she could explore her interests in the interactions among social, environmental, and biological factors and their combined effects on health outcomes. She designed her area of concentration to focus on the *social and biological foundations of health*.



© Courtesy of Kat Anderson

Lemos, who played varsity lacrosse, was particularly interested in how biology and human health are taught in the context of society, culture, and modern medicine and found Human Biology's interdisciplinary nature to be a natural fit for this. Her concentration on *bioethics and human performance* allowed her to explore topics related to human physiology and human health.

With practices, competitions, travel, and academics, life as a student-athlete is no easy feat. Add into the mix pre-med requirements and it can quickly become overwhelming to navigate. Lemos was unsure whom to turn to as she considered difficult decisions on course loads that would fit her lacrosse schedule, taking a 5th year, and the possibility of taking a gap year. Similarly, Anderson said it was sometimes challenging to balance the rigorous pre-med courses and the demands of playing beach volleyball.

“Jacie and I knew several athletes who abandoned their dreams of becoming a doctor because they were told they couldn't be both good pre-meds and high-level athletes,” Anderson shared. “This frustrated me because I believe many of the qualities that make great athletes are the same qualities that make great doctors: teamwork, discipline, and the ability to thrive under pressure.”

Recognizing the commonality of their experiences and refusing to give up on their dreams, Lemos and Anderson decided to form a group to support and bring pre-med athletes together. What started as an excel spreadsheet containing the names of



© Courtesy of Jacie Lemos

former Stanford student-athletes who were now in medical school or had become doctors quickly grew into a much larger support network of enthusiastic alumni, students, and members of the athletic department and the athletic and pre-med advising groups.

The student-run organization formally launched in 2020 as Athletes in Medicine at Stanford, or AIMS for short with the mission of supporting, connecting, and inspiring current and former Stanford student-athletes as they pursue a career in medicine. Today, AIMS has a network of roughly 200 pre-meds, medical students, and physicians.

In addition to providing a space to share experiences, give and receive advice, and inspire athletes at all stages of their medical journey, the group also hosts several events each year ranging from alumni panels to application workshops. They also offer an accredited course run by faculty advisor Dr. Michael Sgroi, *Surg 144: Athletes in Medicine at Stanford*. The class allows student-athletes from all sports to connect, share experiences and



© Courtesy of Jacie Lemos

resources, and explore topics such as medical school applications, placement tests, research, and careers in medicine.

“Our goal with AIMS has been to show student-athletes that you *can* excel both as an athlete and as a pre-med student and that the two can actually benefit each other,” Lemos explained.

In 2022, Anderson and Lemos took their initiative one step further by bringing the Athletes in Medicine initiative to a national level. Like the Stanford group, the larger AIM group supports and inspires student-athletes across the country as they pursue a career in medicine by providing resources and research and volunteer opportunities and showcasing current pre-med student-athletes. Anderson and Lemos then coordinated their first virtual AIM conference in May 2022 to further spread the word. The half-day event supported by

representatives from the American Association of Medical Colleges (AAMC), the National Institutes of Health (NIH), and the National Collegiate Athletics Association (NCAA) as well as medical school admissions officers and physicians, and medical students who were collegiate or professional athletes. With over 200 attendees, the inaugural conference was a great success. “It was extremely rewarding to see that people around the country recognize the importance of encouraging athletes who are interested in the medical field,” Anderson reflected. “We were overwhelmed by the support we received and it was such an honor to co-host this conference with Jacie.”

One of the biggest challenges that Anderson and Lemos have faced in building AIM both at Stanford and beyond has been identifying the key things student-athletes wanted and realistically addressing those needs. To appeal to one of the busiest populations of students, Anderson and Lemos strive to provide their fellow athletes with resources that are both valuable and worth their limited time. Despite these challenges, both Anderson and Lemos agreed that creating this group has been an incredibly rewarding and humbling experience and they are excited to see how the initiative continues to grow.

Today, Anderson and Lemos are first-year medical students at Stanford University and the University of Michigan, respectively. They both hope to combine their interests in clinical care, research, and academic medicine no matter what specialty they go into. The two continue to be actively involved with AIM and recently published a [systematic review](#) with fellow HumBio alumna Sammy Pickell ‘22 and AIMS advisor Michael Sgroi evaluating the relationship between participation in athletics and success in the medical field. AIM at Stanford continues to be a popular support for student-athletes, especially HumBio student-athletes interested in pursuing careers in medicine. This year’s leadership team includes three HumBio student-athletes – Emily Schultz ‘22 (softball), Kylie Oakes ‘24 (rowing), and Abby Tindall ‘23 (sailing).

Acknowledging that each school has a different culture, structure, and view on academics and athletics, Lemos and Anderson are working to develop strategies to empower students at different universities to adapt what they have done with AIM at Stanford to fit the needs of pre-med athletes at their schools. They hope that by supporting their fellow pre-med student-athletes, AIM can not only help improve representation in the medical field but it can change the narrative of what is possible for student-athletes.

Anderson and Lemos encourage anyone interested in learning more about AIM or getting involved with the organization to reach out to them at kathry10@stanford.edu and jlemos@med.umich.edu. Learn more about AIM and see what they are currently doing on their [website](#) and [Instagram](#).

© Courtesy of Jacie Lemos



Embracing Growth and Reflection: Highlights from HumBio's Senior Capstone Experience

The culmination of the Human Biology educational experience is the senior capstone, through which students showcase the skills they have developed in the major and reflect upon their undergraduate careers together with their broader interests and values. There are three capstone options designed to meet a range of student goals: Practicum, Synthesis, and Honors. The graduating class of 2023 included the largest-ever cohort of synthesis students and the largest proportion of honors thesis students in over 20 years. The Class of 2023 faced the challenges of the last few years with unyielding determination, embracing opportunities for growth, change, and knowledge. Read on to find out what is on students' minds today and how they reflect on their HumBio journeys.

1. Practicum

The Practicum is a Capstone option focused on reflection that encourages students to make connections among their academic, extra-curricular, and pre-professional experiences. Throughout their senior year, students attend workshops that provide alumni mentoring, practical skills development, and guided reflection. Students then put together a portfolio that illustrates how they have developed skills in scientific communication, scientific literacy, and data analysis. To close out their practicum experience spring quarter, students share their unique undergraduate journeys and reflections in a final presentation and written essay.

The mentoring lunch with Stella Aslibekyan was the first time I have had someone tell me that it is not only okay but important to mold a career around other aspects of your life like wanting to have a family. If we do not take care of our personal needs, we cannot thrive in our professional aspirations. She drove in a concept that I had been working hard to internalize since the mentoring lunch with Dr. Malika Kuma; the career I pursue now is not what I will be doing for the rest of my life, it is okay to change and pivot careers. – Emily Blackwell '23

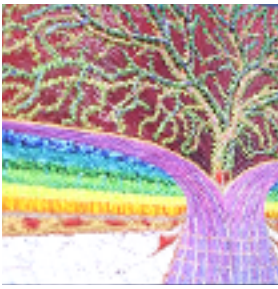
The workshops have equipped me with a multidimensional skill set that extends beyond the confines of my Human Biology major. The critical thinking, problem-solving, and communication skills I have acquired are transferable to various disciplines and will undoubtedly prove invaluable throughout my career. Through my Human Biology and Capstone experience, I have learned what it means to be resourceful and to make the most of what I have. I have learned how to improvise and be creative, finding ways to solve problems and overcome obstacles. – Shane Cadogan '23

Thank you to our many incredible alumni who have volunteered their time and mentorship to our students in our mentoring workshops. We couldn't do it without you! HumBio is always looking for new alumni who enjoy connecting with small groups of current HumBio students to share their career journeys and wisdom. If you are interested in participating either this fall or in the near future, please fill out this [brief form with your information](#).

2. Synthesis

The Senior Synthesis pathway allows students to combine their personal and academic interests into an intellectually stimulating and creative project. For example, students have produced podcasts and documentaries, written short stories and novels, compiled multimedia anthologies, and developed curricular resources for community partners.

Fifteen students completed a synthesis project this year on topics ranging from food and healthy eating to engaging with youth to reflections and handbooks on identity, health, and wellness.



Treat Greenly by Aiden Choi
A 40 minute documentary on sustainability in medicine featuring interviews with Stanford faculty, students, and physicians.



Debunking the Protein Myth Through Plant-Forward Cooking by Sawye Raygani

A plant-forward Iranian recipe book that adopts more sustainable eating habits.



HUMBIO77SI: Introduction to Performing Arts Medicine by Samuel Ogunsanya

A student-initiated course taught in the winter quarter.



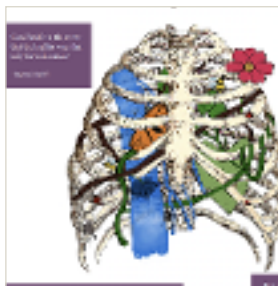
Impact through Education: Improving MED 181 Volunteer Training Curriculum at Cardinal Free Clinics by Yuann (Sarah) Kim

An essay summarizing her work in the CFCs and learning materials future volunteers to use.



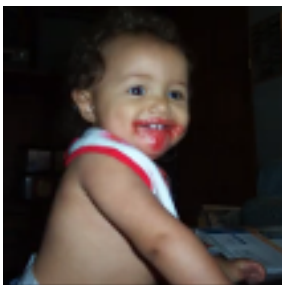
Take Space to Make Space by Michaela Edwards

A podcast featuring advice on how to support peers and other people challenged by mental illness from those who have experienced it themselves.



Ananse Ntontan: A Diasporic Anthology on Black Identity and Wellness by Jeramy Botwe

A Zine on topics that affect marginalized communities across the world.



Mind, Body, Spirit: A Self Documentary by Tianna Trepte

A self-documentary exploring the expansive definition of health as it embodies mental, physical, and spiritual wellness.



A Fever on Elephant Island: Exploring the Lives of Children Orphaned by Infectious Disease Outbreaks by Sophia Nesamoney

A draft of a 50,000 word novel exploring the challenges faced by children orphaned during infectious disease outbreaks.



Creating a Weight Management Device to Promote Mental Wellness by Stella Delp

A "demo" of the device designed to facilitate a healthier mindset around weight management.



Implementing a Garden-Based Curriculum in the Santa Clara Unified School District to Promote Healthy Eating by Sarah Darmstadt

A garden-based curriculum and lesson plans for an afterschool program (K-6).



Building Effective Support Networks for Undocumented Students: A Handbook for Educators by Laura Villalobos

A compilation of resources for university administration, staff, and faculty on how to support undocumented students.



Engaging Youth in Science by Highlighting Underrepresented Scientists by Shelby Whinery

A curriculum and set of activities that follow 3-5 scientists' work to get early elementary students excited about science.



The Magic of Play: Exploring the Link between Neuropsychological Development & Creative Play-Based Experiences in Early Childhood
by Eden Gibson

A brief documentary that captures the wonder of childhood.



Growing Pains by Kaitlyn Choe

A collection of short stories and essays that explore the lived experiences of adolescence within the context of a Korean-American family.



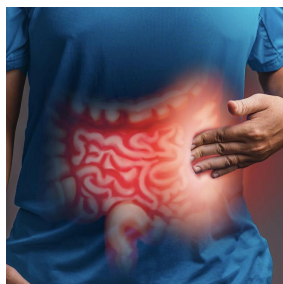
Designing and Implementing Workshops to Improve Wellness in Measurable Ways for an Adult Day Health Program
by Audrey Xu

A quality improvement project focused on the development of equitable treatments for chronic diseases.

3. Honors

When a student's intellectual curiosity drives them to ask scholarly questions, they may choose to pursue honors research for their capstone. Students enter the honors program as juniors and work closely with faculty on an individual research project that culminates more than a year later in an honors thesis and final presentation. Honors thesis research requires a serious commitment of time and effort, and the pathway to discovery is rarely smooth. Along the way, however, students become stronger and more capable scientific researchers and communicators.

This year, Human Biology awarded honors degrees to 36 students. Four were recognized with the Firestone Medal for Excellence in Undergraduate Research, a university-wide award given to the top 10% of honors theses completed each year. Three were recognized for their exceptional talent in the oral, written, and visual presentation skills. And one student was awarded the Barbara and Sandy Dornbusch Award for Excellence in Research in Human Biology Relating to Families and Children.



Identification of a Novel, Cytotoxic Memory CD4+ T Cell Population and Shared Antigen Specificity Potential in a Subset of Inflammatory Bowel Disease Patients
by Joshua Chan

Recipient of the Firestone Medal



"Who Knows What is the Truth": Exploring Abortion Misinformation Among Young Adults
by Jennifer John

Recipient of the Firestone Medal



Bariatric Surgery Outcomes Among Patients With NAFLD-related Liver Cirrhosis: A Retrospective Cohort of Patients From California's HCAI Database by Nicholas Rouillard

Recipient of the Firestone Medal



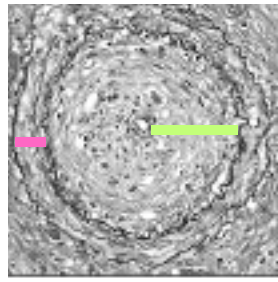
From Catastrophe to Opportunity: Investigating a Novel Intervention for Post-Traumatic Growth and Resilient Immunity in the COVID-19 Aftermath by Alexis Straube

Recipient of the Firestone Medal



The Promise of Virtual and Augmented Reality to Optimize Community Engagement in Driving Health Equity Solutions
by Zakaria Doueiri

Recipient of the Dornbusch Award



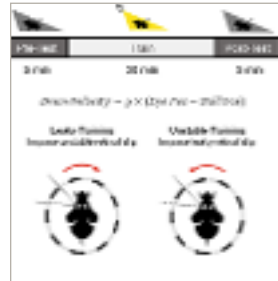
Investigating the Effect of the Tyrosine Kinase Inhibitor, Imatinib, on Arterial Remodeling in a Murine Model of Pulmonary Arterial Hypertension

by Madeleine McGlynn
Recipient of the Oral Communication Award



Investigating the Role of Lipid Droplet Accumulating Microglia in Alzheimer's Disease
by Andrew Shin

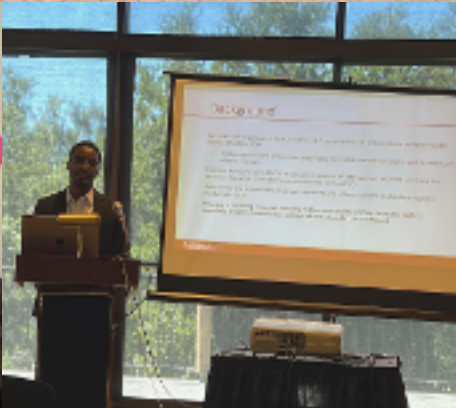
Recipient of the Oral Communication Award



Plasticity and Tuning of the Oculomotor Integrator by Visual Feedback in Mice by Kellen Vu

Recipient of the Oral Communication Award

You can view the full list of honors research presenters, read their abstracts, and watch their presentations from the 2023 Gelles Senior Symposium on our website [here](#).



HumBio Says Thank You and Happy Retirement to Professor David Lyons

Professor David Lyons, an esteemed professor of psychiatry and behavioral sciences and a longtime HumBio Core instructor, is retiring from Stanford University after a career that has greatly impacted the lives of countless students and colleagues. Lyons' heartfelt dedication to teaching, mentoring, and advising has shaped the academic and professional trajectories of numerous aspiring scholars.

Lyons first joined the Human Biology Program during the 2006–2007 academic year to teach in the HumBio core course, *HumBio 4B: Behavior, Health, and Development*. Professor Lyons' instruction over the past nearly twenty years has provided students with a comprehensive and rigorous introduction to a range of essential topics, framed in classic HumBio interdisciplinary fashion, from brain development and aging to mental health, nutrition, epigenetics, and stress resilience. At a formative time in the educational journey of Human Biology students, Professor Lyons' teachings fostered critical thinking and equipped students with the ability to analyze experimental designs and results of statistical analyses.

Throughout his HumBio teaching career, he has taught more than 3,400 students. Lyons' teaching style has earned him praise from students, who cite his genuine enthusiasm for the subject matter and his unwavering focus on the students' learning and success. Lyons has always been generous with his time, making himself available to meet and collaborate with students beyond class hours to ensure they understood the material.

Lyons' commitment to HumBio 4B went well beyond his role as a teacher, with his behind-the-scenes efforts also playing a crucial role in the success of his students and the overall course. He continuously sought ways to improve and enhance the course content and the overall student experience. In 2014, Lyons was named a Catherine R. Kennedy and Daniel L. Grossman Fellow in Human Biology in recognition of his efforts and the investment of time and creative energy he had put into HumBio 4B's curriculum. He also received the 2007 Merton and Audrey Bernfield Director's Award for Exceptional Contributions to the Human Biology Program, a further testament to his loyalty to the course and the program's continued growth and success.

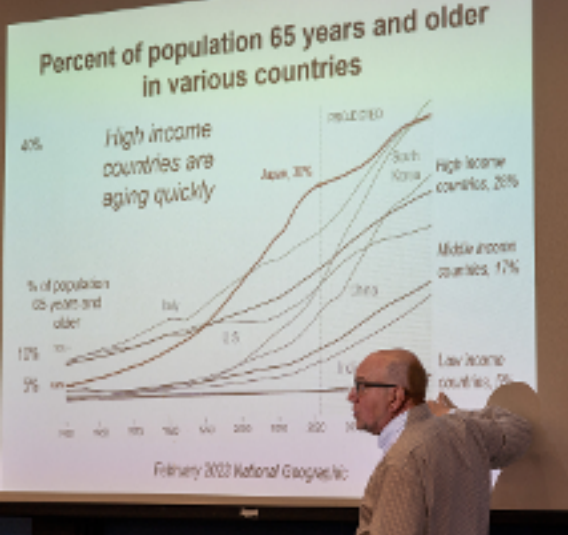
Michael Frank, the David and Lucile Packard Professor of Human Biology and Lyons' colleague in HumBio 4B for the past five years, describes their collaboration as a true pleasure. "David brings his kind and thoughtful engagement to every aspect of his teaching the core," Frank reflected. "He is always asking how each aspect of the course serves our overall learning goals. I will really miss teaching with him!"

Lyons' devotion to student success is further illustrated by the significant amount of time and effort he invested in mentoring students over the years. He has served as an advisor for forty-eight Human Biology students and a mentor to several undergraduate students in the Human Biology Research Exploration Program (HB-REX). In addition, he has been a reader for ten honors theses, including that of Julia Rathmann-Bloch '21, one of the recipients of Stanford's prestigious Firestone Medal. Rathmann-Bloch had the privilege of working closely with Lyons as a lab research

assistant. Under his guidance, she actively engaged in scientific research, took ownership of the project, and honed her critical thinking and research skills. Reflecting on her experience, Rathmann-Bloch shared, "Professor Lyons consistently focused on empowering his students to become better scientists. [...] I'm a better researcher and scientist for having had the chance to work closely with him, and I'm incredibly grateful."



Continues on next page



Rathmann-Bloch is one of many students who have admired and appreciated Lyons’ enthusiastic and thoughtful guidance and his efforts to create meaningful career and learning opportunities for his mentees. His mentorship has shaped many students’ academic and professional futures and has inspired many to pursue higher-level coursework in human behavioral sciences. Recognizing his deep commitment to teaching and mentoring, he was honored with the Dean’s Award for Distinguished Teaching in the School of Humanities and Sciences for Lifetime Achievements in Teaching this spring.

And finally, Lyons has been an invaluable faculty contributor to HumBio. An active member of the program’s executive committee for a number of years, he provided insightful commentary and critical feedback, always striving to improve Human Biology and ensure its continued relevance.

The Human Biology team thanks David for his wonderful contributions to the Program in Human Biology and to its students, congratulates him on his well-deserved retirement and wishes him the very best as he embarks on the next chapter of his journey.

Yvonne Maldonado Elected to the American Academy of Arts and Sciences



© Stanford Medicine

Congratulations to [Dr. Yvonne Maldonado](#), one of 13 Stanford faculty members recently elected to the American Academy of Arts and Sciences. The academy honors exceptional scholars who discover and advance knowledge and who apply knowledge to the problems of society.

Dr. Maldonado is the senior associate dean for faculty development and diversity at the School of Medicine; the Taube Professor of Global Health and Infectious Diseases; and professor of pediatrics and of epidemiology and population health. She teaches the HumBio course *HumBio 124C: Global Child Health*, and mentors students pursuing honors research in the program. See the full list of newly elected Stanford faculty [here](#).

Catherine Heaney on the Importance of Work Friends



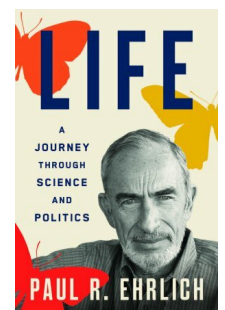
© Stanford Medicine

In a recent TIME magazine article, [Dr. Catherine Heaney](#) argued that social support at work is crucial to an individual’s job satisfaction and performance and also their overall health and well-being. She noted that even small interactions and exchanges can go a long way in decreasing the effects of stress and negative emotions on one’s mental and physical state.

Dr. Heaney is an associate professor of psychology who teaches the upper division course, *HumBio 128: Community Health Psychology*. She is also the chair of the program’s executive committee, a member of the awards committee, and has advised many students pursuing honors research over the years. Read the TIME article [here](#).

New Autobiography by Paul Ehrlich

Check out HumBio founder and world-renowned population biologist [Dr. Paul Ehrlich](#)’s new autobiography, *Life: A Journey Through Science and Politics* (Yale University Press, 2023). The book provides a glimpse into the major professional and personal milestones in his life from field-shaping work on caterpillar-host plant relationships to politics and advocacy, including his 1968 publication, *The Population Bomb*. Read Stanford’s full Q&A feature with Ehrlich [here](#).



Director's Message

Dear HumBio Community,

I hope this message continues to find you all safe and well and that you are having a wonderful summer.

As is typical at Stanford, time has flown by, and we are looking ahead to the new academic year. As I reflect on the 2022-2023 academic year, one thing remains steadfast: the unwavering enthusiasm and passion of our students and faculty in their pursuit of experiencing and providing HumBio's exceptional interdisciplinary education. The strength, pride, and passion of our community never ceases to amaze me.

We are all looking forward to welcoming a new cohort of eager Human Biology students this fall.

As always, we are available both in person and via phone, email, and social media should you need anything or want to pop in to say hello. Please feel free to reach out to any member of our team, myself included - we're always happy to connect and talk with you.

Enjoy the rest of your summer!

All my best, Lianne



Lianne Kurina, PhD
The Bing Director in Human Biology Professor (Teaching), Medicine, and (by courtesy) Epidemiology & Population Health



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](#).



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.

HUMBIO STAFF

Director: Lianne Kurina

Associate Director: Katherine Preston

Administrative Director: Linda Barghi

Core Coordinator: Annette Salmeen

Student Services Manager & Capstone Coordinator: Samantha Cooper

Communication & Outreach Officer: Jessica Frydenberg

Student Services Specialist: Cherene Zingg

Course Support: Livia Choy

Academic Technology Specialist: Carlos Seligo