

The Program in Human Biology at Stanford University

*The New
Millennium*

2000 - 2021

HUMAN BIOLOGY CORE COURSES AND FACULTY COORDINATORS

2000/01

- 2A Genetics, Evolution & Ecology (Carol Boggs)
- 2B Culture, Evolution, & Society (Richard Klein)
- 3A Cell and Developmental Biology (Daria Mochly-Rosen)
- 3B Biology & Culture in Human Development (Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B The Human Predicament (Carol Boggs, Lawrence Goulder)

2001/02

- 2A Genetics, Evolution, & Ecology (Bill Durham, Joanna Mountain)
- 2B Culture, Evolution, & Society (Richard Klein)
- 3A Cell and Developmental Biology (James Ferrell, Belinda Fu)
- 3B Biology & Culture in Human Development (Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B The Human Predicament (Carol Boggs, Lawrence Goulder)

2002/03

- 2A Genetics, Evolution, & Ecology (Bill Durham)
- 2B Culture, Evolution, & Society (Richard Klein)
- 3A Cell & Developmental Biology (James Ferrell, Belinda Fu)
- 3B The Human Predicament (Carol Boggs)
- 4A The Human Organism (Russell Fernald, Daniel Garza)
- 4B Biology & Culture in Human Development (Anne Fernald)

2003/04

- 2A Genetics, Evolution, & Ecology (Bill Durham, Joanna Mountain)
- 2B Culture, Evolution, & Society (Melissa Brown, Richard Klein)
- 3A Cell & Developmental Biology (James Ferrell, Belinda Fu)
- 3B The Human Predicament (Lawrence Goulder, Don Barr)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Biology & Culture in Human Development (Anne Fernald)

2004/05

- 2A Genetics, Evolution, & Ecology (Durham, Joanna Mountain)
- 2B Culture, Evolution, & Society (Melissa Brown, Richard Klein)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B The Human Predicament (Lawrence Goulder, Don Barr)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Biology & Culture in Human Development (Anne Fernald)

2005/06

- 2A Genetics, Evolution, & Ecology (Bill Durham, Carol Boggs)
- 2B Culture, Evolution, & Society (Melissa Brown, Richard Klein)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Environmental & Health Policy Analysis (Lawrence Goulder, Don Barr)
- 4A The Human Organism (Craig Heller)
- 4B Biology and Culture (Shirley Feldman)

2006/07

- 2A Genetics, Evolution, & Ecology (Carol Boggs, Bill Durham, Rick Myers)
- 2B Culture, Evolution, & Society (Richard Klein, Arthur Wolf, Doug Bird)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior & Its Development (David Lyons, Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environment & Health Policy Analysis (Lawrence Goulder, Don Barr)

2007/08

- 2A Genetics, Evolution, & Ecology (Carol Boggs, Bill Durham, Uta Francke)
- 2B Culture, Evolution, & Society (Melissa Brown, Richard Klein)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior, Health, & Development (David Lyons, Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Lawrence Goulder, Don Barr)

2008/09

- 2A Genetics, Evolution, & Ecology (Carol Boggs, Bill Durham, Uta Francke)
- 2B Culture, Evolution, & Society (Melissa Brown, Richard Klein)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior, Health, & Development (David Lyons, Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Lawrence Goulder, Don Barr)

2009/10

- 2A Genetics, Evolution, & Ecology (Carol Boggs, Bill Durham, Uta Francke)
- 2B Culture, Evolution, & Society (Melissa Brown, Richard Klein)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior, Health, & Development (David Lyons, Robert Lickliter)
- 4A The Human Organism (Craig Heller)
- 4B Environment & Health Policy Analysis (Laurence Baker, Lawrence Goulder)

2010/11

- 2A Genetics, Evolution, & Ecology (Carol Boggs, Bill Durham, Uta Francke)
- 2B Culture, Evolution, & Society (Richard Klein, Arthur Wolf)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior, Health, & Development (David Lyons, Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Lawrence Goulder)

2011/12

- 2A Genetics, Evolution, & Ecology (Carol Boggs, Bill Durham, Uta Francke)
- 2B Culture, Evolution, & Society (Richard Klein, Arthur Wolf)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior, Health, & Development (David Lyons, Anne Fernald)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Lawrence Goulder)

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*The New
Millennium*

A history from 2000-2021

THE PROGRAM IN HUMAN BIOLOGY AT STANFORD UNIVERSITY



What does it mean to be human? This is the central question for Human Biology students, whose education opens windows to biological, behavioral, historical, social, and cultural perspectives on being human.

Fifty years ago, a group of visionary thinkers came together to create an interdisciplinary education program to prepare students to face the challenges of the modern world. The Program in Human Biology was founded during a time of social and political change and unrest, much like

the climate in which we find ourselves today. The first interdisciplinary program of its kind, Human Biology set out to provide exposure to and training across multiple disciplines to develop students' abilities to think creatively and effectively about the problems facing humanity. The importance of this mission remains undiminished as our world grows ever more complex and interconnected.

Since its founding in 1971, over eight thousand students have been trained in Human Biology at Stanford, reflecting the consistent popularity of this unique, individualized approach to education. We are so proud of our alumni who have gone on to forge impactful careers in medicine, education, technology, public service, law, philanthropy, policy...The list is long and impressive.

To help commemorate this milestone for our beloved program — fifty years strong! — we have produced a continued history of the program, picking up from our reflections on the thirtieth anniversary. Both books chronicle important events for the major and tell the stories of the people who have worked to sustain and grow the program. In this book, we describe how the program has continued to evolve over the last two decades, while also remaining true to the founders' mission of encouraging the convergence of natural and social science in the study of humans and the social and environmental problems with which we are faced. As with any important endeavor, the Program in Human Biology has needed to weather many challenges over the years. Thanks to its culture of excellence and its strong community focus, HumBio has continued to grow and flourish.

Today, we are proud to offer an even wider array of classes, robust research opportunities at each educational stage, and diverse capstone experiences to train our students to become innovative and critical thinkers. Our goal is to equip our students with the knowledge and tools to pursue their visions of what it means to be human.

— Lianne Kurina, Bing Director of the Program in Human Biology
September 2021

Human Biology in the New Millennium



The first Human Biology history book covered the program's first thirty years. This book picks up in 2000 when Russell Fernald was director of the program.

At the beginning of the new millennium, Human Biology had consistently been the first or second-largest undergraduate major at Stanford, with approximately one hundred and seventy-five graduates each year. The program continued to flourish as new classes and opportunities were added to the program, even in the face of ever-present financial challenges.

New Human Biology Staff Hired

To keep up with the demands associated with being one of the largest undergraduate majors at Stanford, Human Biology needed to grow its administrative staff.

In 2000, Fernald hired Linda Barghi to be the program manager. The 1998 recipient of the Arnice P. Streit Award for exceptional contributions as an administrator, Barghi came to HumBio from Stanford's Department of Psychology.

"Linda is simply superb," wrote Fernald after Barghi won the award. "She anticipates issues, looks for solutions, filters the bureaucratic noise out of my life, and essentially doubles my time for other, more important issues. In carrying out her good works, Linda makes a good impression, always relying on thoughtful exchange rather than confrontation" (Stanford News, 1999).

Barghi came into this role just as the dean's finance group was restructuring how



HumBio Staff get together with families in 2001

units report their finances. The goal of this restructuring effort was to ensure equitable budgeting levels across groups. The dean's finance team met with all units to look over historic numbers and to identify the units' needs. These meetings were important as they ended up structuring the funding levels across units for years to come. The result – increased stability and predictability of the budgets over time – allowed for more long-term commitments to programming. Now, in 2021, the program continues to benefit enormously from Barghi's dedication to HumBio and her wealth of experience and knowledge about the program.

In 2001, Robyn Duby was hired part-time to provide course support and executive assistance, organize events and meetings, and create content and correspondence on behalf of the program and the program director. Duby's position later evolved into a full-time position when she took on the responsibility of donor relations for the program until her retirement in 2019. Duby maintained the program's relationship with its alumni and donors through semi-annual newsletters and general correspondence.



Linda Barghi, Arnice P. Streit Award Announcement 1998



Robyn Duby at HumBio's 2016 October Reunion

For nearly twenty years, Duby's warm and optimistic presence welcomed everyone who entered Building 20. From keeping the kitchen stocked with tea to triple-checking every name in the graduation program, Duby made sure that every member of the community felt welcome and known.

Kirsten Frohnmayer Research Prize for Juniors Founded

The Kirsten Frohnmayer Research Prize for Juniors in Human Biology was established in 2000 to honor Kirsten Frohnmayer, a remarkable Stanford alumna (class of 1995) who died in 1997 at twenty-four years old due to complications of Fanconi Anemia.

The research prize was endowed by Kirsten's parents, Lynn and David Frohnmayer, to recognize students who shared Kirsten's idealism and her desire to improve the human condition. Each year, the award is given to an outstanding Human Biology junior who has demonstrated academic excellence, has shown promise as a researcher and has strong potential to make important contributions to society in the future. The Frohnmayers' kindness was intended to recognize individuals early in their careers and inspire their future work.

The first recipient of the award was Jennifer Dorth. Selected for her impressive academic performance, her humanitarian efforts, her lively personality, and her interest in original research, Dorth not only worked to promote the health of Hispanic communities but also completed an honors project investigating the regulation of the immune system. She became an energetic A-Side Course Associate upon graduating in



David and Lynn Frohnmayer with their four oldest children: Mark, Kirsten, Katie and Jonathan.

2001, eager to continue to share her love for Human Biology before she completed her MD at Stanford Medicine. Now a radiation oncologist, Dorth works at the University Hospitals Cleveland Medical Center. She also works as an assistant professor at Case Western Reserve's School of Medicine.

Since its founding, forty-five students have been awarded the Frohnmayer prize. Each one has shared Kirsten's drive, her strong intellect, and, most importantly, her passion to make a difference in the world. These students have gone on to stellar careers, with Rhodes Scholars, physicians, professors, and public health leaders among their ranks.

Human Performance in Human Biology

Human Biology students have long been interested in the field of human performance. Initially, a related set of courses were given by Gordon Matheson, a sports medicine expert, and Gail Butterfield, a nutrition researcher and dietitian. With Butterfield's passing in 2000, the program appointed Anne Friedlander to continue to develop courses in this field.

Friedlander had already started teaching in the program in 1997 while completing her post-doctoral fellowship in the Division of Endocrinology, Gerontology, and Metabolism in Stanford's School of Medicine. Friedlander also worked as both



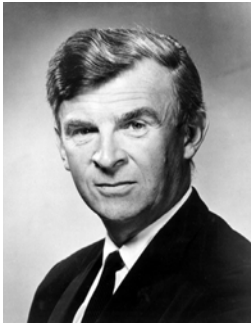
Kirsten Frohnmayer

I had the privilege of knowing Kirsten Frohnmayer as a friend and roommate throughout my undergraduate years at Stanford (1991-1995) and afterwards. Kirsten was extraordinary in so many ways, but perhaps most for her cheerful disposition and positive outlook on life, regardless of the profound health challenges that she and her family faced. I remember her formidable intellect and deep commitment to making things better in the world, and how much she loved listening to music, spending time with her large and diverse group of friends, and dressing in bright colors. I think of her often and those memories inspire me to try harder in my work, which is studying inherited cancer risk and taking care of people with cancer.

— Allison Kurian, class of 1995



Anne Friedlander



Philip Lee



Donald Barr



Geoffrey Heller



Takeshi (Tak) Tsubo in Japan, 2008

the Director of the Exercise Physiology Lab and the Associate Director for Education of the Geriatric Research, Education and Clinical Center (GRECC) at the Veterans Affairs Palo Alto Health Care System beginning in 2000.

With experience in environmental physiology, enhancing human performance, and using physical activity and mobility to promote healthy aging, Friedlander brought to the program her contagious enthusiasm for physiology and exercise. She began teaching the upper-division course HumBio 135, *Exercise Physiology* in 2000 which was met with great excitement and continues to be popular today. Current offerings related to human performance include courses in nutrition, sports medicine, and exercise physiology.

Health Policy in Human Biology

With the new millennium came new growth opportunities. Student interest in health policy had grown significantly since the inception of Donald Barr's introductory course on health care in America in 1994, a course that, by 2000, attracted more than two hundred students every year.

To respond to growing student interest, Human Biology brought in visiting scholars and faculty who could teach students about health policy, drawing on their experiences in government and policy organizations. Two of the most influential of these were Philip Lee and Geoffrey Heller.

Dr. Philip Lee, AB '45, MD '48, an expert in health policy, came to Human Biology following his service as the Assistant Secretary of Health for the U.S.

Department of Health and Human Services. Lee was appointed the Assistant Secretary for Health under two national administrations, first under President Lyndon Johnson from 1965-1969 and again under President Bill Clinton from 1993-1997. He had also previously served as the Chancellor of the University of California, San Francisco, and was the founder of the Institute for Health Policy Studies there. With his vast personal experience and knowledge on the topic, Lee offered a course on international health policy and co-led a seminar on American Health Policy with Donald Barr.

Reflecting on his time as a professor, Lee said, "I don't know of any other undergraduate program that provides a better foundation for careers in public health and health policy" (Human Biology Newsletter, Winter 2008).

As student interest continued to expand, Lee invited two widely known health policy scholars to assist him in teaching courses, Geoffrey Heller and Takeshi Tsubo. Heller had extensive experience in policy consultation and had been the Director of Health Policy and Legislation for the University of California administration. Tsubo had been on the health policy faculty at the Tokai University's School of Medicine and was the leader of the World Health Organization Research Center in Geneva, Switzerland. Together, Lee, Heller, and Tsubo provided students with diverse perspectives on health care and health policy.

In 2021, health policy offerings remain strong. One of the core courses (HumBio 3B) is devoted to environmental and health

policy analysis. Upper-division courses include classes addressing health economics, the structure of healthcare in the United States and globally, and how social policies impact the health of diverse populations. Many other courses include a health policy lens when considering critical health topics, such as infectious diseases, the opioid epidemic, and neurodiverse groups.

Hewlett Challenge

At the start of the new millennium, an issue that loomed large for Human Biology was financial stability. Hence, the advent of new endowments to support teaching programs and student research was critical. These endowments sustained the program as the university experienced fiscal constraints.

A pivotal moment for Stanford and Human Biology came in May of 2001. Before hundreds of students and faculty seated in the main quad, Walter B. Hewlett announced that the William and Flora Hewlett Foundation would give Stanford University \$400 million – \$300 million to the School of Humanities and Sciences and \$100 million to the Campaign for Undergraduate Education.

“This gift honors my father who passed away in January,” Hewlett said during his speech. “It honors his lifetime of philanthropy, his lifelong devotion to Stanford, and his passionate belief in the value of a liberal arts education. By helping Stanford fulfill its promise — namely, increasing knowledge and helping young people — we honor his wishes. [...] My father did not believe in trying to solve problems himself. But he did believe that a



Dean of H&S Malcom Beasley, Walter B. Hewlett, dean designate of H&S Sharon Long and former dean of H&S John Shoven pose in the Quad after the announcement of the Hewlett Foundation \$400 million gift to Stanford in May 2001

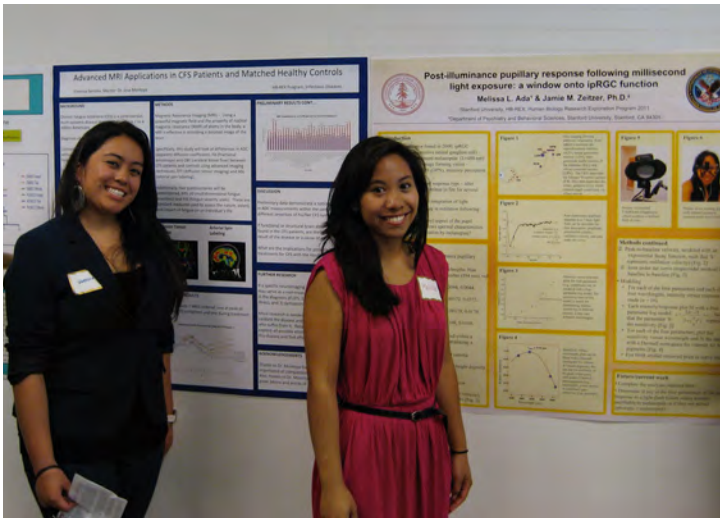


Hewlett Foundation Gift Announcement, May 2001

leadership gift was needed, in some sense, to move the needle” (Stanford Report, May 2001).

This strategic investment in the university, termed the Hewlett Challenge, employed the power of matching contributions and gave Stanford the capacity to expand opportunities for students to learn from and do research alongside some of the world’s brightest professors. Commenting on the availability of new grants for independent studies and research, John Bravman, the Vice Provost of Undergraduate Education (VPUE) at the time, said, “this ties students more into the central mission of scholarship of the university in a way that many faculty and students find extremely rewarding. The non-classroom component of a Stanford education can be as important as anything done in a classroom” (Stanford Report, January 2001).

The timing of the gift was fortuitous for the School of Humanities and Sciences, which needed an economic boost. With the school on a more solid financial footing, its departments and programs could more proactively make appointments and take advantage of unexpected opportunities.



Vanessa Serrano '13 and Melissa Ada '13 present their research projects at the HB-REX Poster Session, 2011

I have to say the HB-REX program ignited my love of scientific inquiry — I never would have found an opportunity to work with such invested faculty as Russ Fernald if it hadn't been for my experience in this program. HB-REX empowered me to seek out opportunities to enrich my academic and intellectual life. My path would have been so much less rich without the spark of curiosity I discovered during that undergraduate summer, and I am so grateful.

— Dr. Victoria Parikh, class of 2005

This gift went on to greatly benefit Human Biology, as it became a springboard for raising additional funds to enhance the education of the program's majors.

Undergraduate Research Program Established at Stanford

With the infusion of funding from the Hewlett Challenge and the subsequent matching funds from other donations in the School of Humanities and Sciences, Vice Provost Bravman announced plans to broaden research opportunities for undergraduate students. Among these were new grants for independent study and research to be administered by a new division of the VPUE office, titled the Undergraduate Research Programs (URP). Susie Brubaker-Cole was named the Director of the Undergraduate Research Programs at its creation in 2001. Today, essentially all HumBio majors who conduct research during the summer are supported by stipends granted through these programs.

HB-REX Program Founded

Assistance from the Hewlett Foundation funding spurred the creation of the Human Biology Research Exploration program (HB-REX) in 2001, which transformed the culture of undergraduate research for students in the major.

Director Fernald and Professor Anne

Fernald (Department of Psychology) created the HB-REX program as a gateway to faculty-mentored research for students who had just completed the six foundational Human Biology core courses. The impact of HB-REX went well beyond increasing financial support. By design, it welcomed students who had not previously considered research and students who wanted to join a research group but did not know where to begin. The Fernalds recruited faculty known to be excellent mentors, drawing from departments across the university, to offer opportunities in areas such as biomedical science and psychology, as well as health policy and ecology. As a result, a wide array of students were able to experience research in a supportive environment. A substantial proportion of these students continued their research into their junior and senior years, some going on to complete honors theses. Twenty years later, the program continues to thrive, with dozens of faculty and over one-quarter of Human Biology majors participating in recent years.

HumBio's Theme Houses: From Yost to Storey on the Row

In the fall of 2002, it was announced that Yost at Governor's Corner, Human Biology's theme house, would transition to the Spanish Language House. Although the end of Yost as the HumBio house was met with some sadness, it was also an opportunity to find a new location for the theme house that would be able to serve more Human Biology majors.

With the support of the program, Residential Education established a pilot

Human Biology theme house on the Row, in Storey House, to test its viability in this location. Moving to a larger house allowed more HumBio majors and non-majors to live there, facilitating greater student connections across the university. About half of the residents in its pilot program were Human Biology majors with the other half majoring in areas adjacent to HumBio such as bioengineering and public policy.

Like Yost, Storey continued to foster an intellectual and caring community among HumBio students and students interested in Human Biology topics at Stanford. Director Fernald and Professor Armin Rosencranz were among those who served as advisors to the theme staff, helping to create interesting programs and fora for intellectual exchange among students, faculty, visiting lecturers, and alumni. Faculty dinners, talks given by visiting speakers, and diverse student-initiated courses were consistently well attended and enjoyed by majors and non-majors alike. Student-initiated courses were offered to all of Storey's residents every year and varied in topics that were relevant to the times. According to Kali Stanger, one of the 2002-2003 academic theme associates for Storey House's pilot, the house was "the epitome of Residential Education [because] it encourages students to extend their academic interests into their residential lives through priority programming, faculty dinners, in-house courses, and theme programming."

In 2016, Lisa Medoff took on the role of faculty liaison to Storey House. Medoff, a popular instructor who teaches courses in adolescent development and sexuality,



Storey House on the Row

enhanced the academic programming opportunities for residents and strengthened the ties between the house and the program.

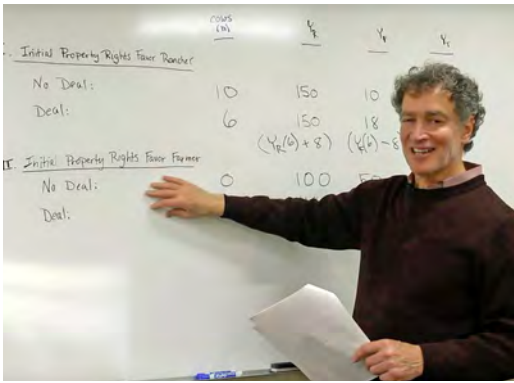
For nearly two decades, Storey House fostered a tight-knit community of passionate interdisciplinary learners and provided a place for people to build lifelong relationships. In the spring of 2020, the last Storey residents had to move out quickly when the global SARS-CoV-2 pandemic shut down the Stanford campus. Between the campus closure and the fall of 2021, the university redesigned housing for all undergraduates and the Human Biology theme house at Storey came to an end.

Mary and Jacquelyn Edmonds Prize in Human Biology Founded

Mary Edmonds joined Stanford University as the Vice Provost for Student Affairs and a Clinical Professor in the Department of Health Research and Policy in 1992. Edmonds was a role model to students, faculty, and staff alike and a visionary leader in the community. During the eight years she worked as vice provost, she was an early advocate for diversity and inclusion and was deeply committed to advancing social justice both on campus and beyond, and opening educational doors to all.

"Mary was a confident and charismatic leader who genuinely cared about people and their success," said Shirley Everett, Senior Associate Vice Provost of Residential & Dining Enterprises. "Mary held the firm

For several years, in coordination with Human Biology, Storey offered a spring quarter lecture series titled *Good Vibrations: Sex, Love, and Society* (HumBio 26), designed to provide a positive look at sex and sexuality. Run by Armin Rosencranz, the lecture series brought professors and members from across the community to the house for open and honest discussions about topics such as contraception, sexual orientation, love and sexuality, reproduction, marriage and partnerships, and transforming attitudes about sex.



Lawrence Goulder teaching, 2015



Mary Edmonds

Mary Edmonds passed away in 2017. However, the legacy of her wonderful mentorship and leadership on campus remains.

belief that education was power and leaves a legacy of inspiring many to further empower themselves, myself included, as I continued my life-long educational pursuits after having met her...Throughout her illustrious career, Mary served as a mentor for women leaders, particularly for African American women on the campuses she served” (Stanford News, 2017).

In 2002, Edmonds and her daughter, Jacquelyn Edmonds (now Jacquelyn Edmonds Cofer) established a generous endowment fund for the university. Together with the university’s Board of Trustees, it was decided that the principal purpose of the fund would be to award student prizes in their honor. The Mary and Jacquelyn Edmonds Prize recognizes two outstanding Juniors each year, one majoring in Human Biology and one in Communication. The student recipients embody Mary’s passion for education and show true academic excellence and commitment to their community during their time at Stanford. Their accomplishments are celebrated by the Black Community Services Center (BCSC) in their awards ceremony.

Catherine R. Kennedy and Daniel L. Grossman Endow Teaching Fellowships for Human Biology

A matching donation from the Hewlett Challenge that was particularly vital for Human Biology was a series of endowment funds for faculty fellowships generously donated by Catherine Kennedy and Daniel Grossman beginning in 2003. Both Stanford alumni, Catherine graduated from Human Biology in 1976 and Daniel graduated from

the Graduate School of Business in 1976.

The Catherine R. Kennedy and Daniel L. Grossman Endowment supports fellowships for faculty teaching in the core. As the core is the gateway to the major, this critical fellowship has ensured that HumBio’s introductory courses remain stable and attractive to faculty from different departments across the university. The fellowship recognizes the major investment of time and creative energy that faculty put into the curriculum of the core.

The first recipient of the Kennedy Grossman Fellowship was Lawrence Goulder, an environmental and resource economist who, at the time he was named in 2004, co-coordinated the B-side of the winter quarter of the core.

Jeffrey Wine Becomes Director

Jeffrey Wine became Director of the Program in Human Biology in 2003. Wine originally came to Stanford in 1973 as a postdoctoral researcher with Donald Kennedy, later joining the faculty. By 2003, Wine was a professor of psychology and, by courtesy, pediatrics, and the Benjamin Scott Crocker Professor of Human Biology. Wine is widely recognized for his work on cystic fibrosis and his goal of ameliorating the symptoms in people who have CF.

In his opening director’s letter to the community, Wine reflected on the program, “the original goals of the program are even more relevant today than they were at its founding; for in three decades, the human population has grown from 3.6 to 6.3 billion people, and in spite of spectacular increases in scientific understanding and

electronic interconnectedness, we find that ancient superstitions and destructive passions continue to flourish. And so, the special character of the Human Biology Program is as important as ever: we must [continue to] strive to understand our place in nature, and then strive to act wisely on the basis of that knowledge” (HumBio Newsletter, 2003).

An important task that Wine navigated during his three years as director was a renewed emphasis at the university on ensuring that courses were taught by full-time faculty, which required substantial restructuring of staffing of HumBio courses. Under Wine’s direction, Human Biology also continued to expand its classes and opportunities for students, which was particularly impressive during a lean time at the university.

Teaching Effort Course Units (TECU) System is Formulated

In 2003, the School of Medicine created a new formula for the distribution of their operating budget funds to academic units, in part to help offset the challenging national research funding climate operating at that time. The education component of this formula allocated funds towards course direction based on teaching effort course units (TECU). Thanks to the TECU system, the Program in Human Biology succeeded in bringing the School of Medicine’s faculty robustly into the HumBio curriculum.

Margaret Fuller named Reed-Hodgson Professor in Human Biology

In 2005, Margaret Fuller was appointed the



Jeffrey Wine

Reed-Hodgson Chair in Human Biology. A professor of developmental biology and genetics and then-chair of Stanford’s Department of Developmental Biology, Fuller researches the mechanisms that regulate adult stem cells. She began teaching the core course *Cell and Developmental Biology* during the 2004-2005 academic year and has been an enthusiastic and creative leader of the teaching team since. Behind the scenes, Fuller works closely with the core course associates, coaching them to think deeply about concepts in cell and developmental biology, principles of experimental design, and ways to construct effective section activities and exam questions.

The Reed-Hodgson Professorship, established in 1973, was the second endowed chair in Human Biology. It was created through a gift from the late Richard Hodgson and his wife, Geraldine Coursen Reed, together with funds from a Ford Foundation Grant to the Program. Fuller was the fourth faculty member to be named to the Reed-Hodgson Professorship.

Methodology Strengthened with Jennifer Wolf

One of the benefits of attending Stanford, a top-tier research institution, is the opportunity for students to get involved in cutting-edge research. Although in the mid-2000s there were undergraduate courses focused on quantitative data analysis, no such classes on qualitative data analysis existed.

In 2008, Jennifer Wolf came to Stanford



Margaret (Minx) Fuller

HumBio gave me far more than I could have ever imagined. The way that I now approach critical thinking, in-depth analysis, and interactions with people every day has changed because of my experience in HumBio, and for that I will be forever grateful.

— Derek Waldeck, class of 2020



Jennifer Wolf

Some notable qualitative honors theses in recent years that received Firestone Medals include:

- Catherine Sanchez '19: "A Cluttered Past: Exploring the Relationship Between Early Life Stress & Hoarding Disorder"
- Melissa Eidman '17: "Still Reservations: Examining Barriers to Health and Health Seeking Behavior on the Yurok Reservation"
- Elise Geithner '13: "Medical Post-Traumatic Stress Disorder in Pediatric Intensive Care Patients at Lucile Packard Children's Hospital" (also the winner of the David M. Kennedy Honors Thesis Prize in the Social Sciences)



Barbara Hunt



Samantha Cooper

as a lecturer in the Graduate School of Education after teaching high school English and drama in California public schools for fifteen years. Drawing on over a decade of qualitative methodology work, Wolf created two new undergraduate courses in Human Biology focused on qualitative research methods — an introductory course in core concepts and methods and an advanced data analysis course.

This addition of qualitative research courses widened the scope of research topics for honors students. Students could now pursue rigorous research based on close analysis of interview data. As these courses gained popularity, students from across the university took advantage of the opportunity to develop their qualitative research skills with Wolf.

Wolf continues to support and encourage students to explore qualitative research in HumBio. Today, she is a senior lecturer in the Graduate School of Education and has been the Undergraduate Minor Director for the GSE since 2018. She has also been the chair of Human Biology's Awards Committee for a number of years.

Program Support Coordinator Position Created

As the program continued to flourish, the HumBio administrative team expanded. In 2006, Marie Le was hired as HumBio's first course support coordinator.

This position was added alongside the three existing staff positions of program administrator (Linda Barghi), program secretary (Robyn Duby), and student services coordinator (Lia Cacciari). Le was

tasked with ensuring that the technical aspects of the program ran smoothly. From managing classroom assignments, section scheduling, and office timeshare rooms, Le was also the point person for assistance with equipment, books, supplies, and course support.

Following Le's departure to pursue a Ph.D., Barbara Hunt moved from Stanford Sponsored Research to join Human Biology as the course coordinator in the fall of 2008. Hunt was generous with her good humor and endearing stories about her grandchildren. She supported all things administrative with great reliability and good cheer.

After eight years as the course coordinator, Hunt retired in 2016 and was succeeded by Samantha Cooper. Cooper, who has a master's degree in education and who had previously taught high school biology, initially focused on providing instructional support to HumBio faculty, coordinating the curriculum committee, and managing course scheduling.

As positions were reconfigured, a new specialist role was created in student services and Matthew Kramer, a recent Stanford graduate majoring in communication, was hired in late 2015. In addition to helping students navigate their degree requirements, Kramer also used his technical skills to update and maintain the Human Biology website and transition outdated forms into new web programs and apps to streamline processes and ease the administrative burden.

With Kramer's departure in 2019 to pursue a master's degree, Cooper stepped in

to take on a dual role, working as a student services specialist alongside Lia Cacciari with enthusiasm. In the spring of 2020, she received the Dean's Award for Innovation for her efforts to further support the success of the program and its students. With her detailed knowledge of HumBio courses, Cooper maintains a robust advising program for students as they craft their course plans. Her dedication, hard work, and care for the wellbeing and success of the students and the program itself have been instrumental to the continued success of the program. As Cooper transitioned full-time into her role in student services, Livia Choy was hired in December 2019 as the new course support coordinator.

Carol Boggs Becomes Director

In September 2006, Professor Carol Boggs, then a professor of biological sciences at Stanford, became Director of the Program of Human Biology.

A distinguished evolutionary ecologist, Boggs specializes in the reproductive biology, population biology, ecology, and evolution of butterflies. She led Stanford's Center for Conservation Biology from 1995 until 2006.

For nearly two decades, Boggs had taught and worked with students in the program before becoming director. Boggs began teaching in the core alongside William (Bill) Durham in 1988 and continued to teach HumBio 2A, *Genetics, Evolution, and Ecology* through 2011; she also taught HumBio 4B, *The Human Predicament* from 2000 to 2003.

As director, Boggs used her enthusiastic



Carol Boggs

dedication to the program's mission to raise the profile of Human Biology throughout the university and to engage with alumni. Her energy was especially critical to the success of the program's fortieth-anniversary celebration. Boggs was deeply appreciated for her excellent management skills, which fostered a cooperative and open atmosphere among faculty and staff. In recognition of her impressive record of teaching, scholarship, and leadership, she received an Outstanding Faculty Advisor award in 2001 and the Lloyd W. Dinkelspiel Award for Distinctive Contributions to Undergraduate Education in 2012. During Boggs' tenure as director, an endowed position was created – the Bing Director of the Program in Human Biology – which secured funding for program leadership moving forward.

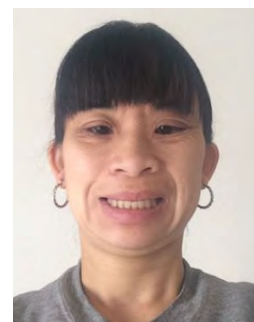
In 2012, after six years as the director, Boggs moved from Stanford to the University of South Carolina to lead the School of the Earth, Ocean, & Environment.

Academic Technology Specialist Joins the HumBio Team

In January 2007, Boggs announced that a new academic technology specialist, Carlos Seligo, would be joining the HumBio team from the office of the Vice Provost of Undergraduate Education to support faculty and staff with instructional design tools and management systems. Seligo brought to the position a combination of technical skills, aesthetic sensibility, and classroom teaching experience. From assisting in the creation



Matthew Kramer



Livia Choy



Carlos Seligo

My two years as an A-side CA overlapped with Annette's hire and her first year as core coordinator. I still remember sitting in on her interview and hoping that she would be chosen for the role! Since then, Annette has put down roots in the core and worked tirelessly towards making it the best it can be. Her passion for keeping the curriculum current in the context of ever-changing methods, biotechnology, and world events has undoubtedly driven the core coordinator's role — and the core itself — in new and exciting directions. Moreover, her uniquely humble, thoughtful, and empathetic approach to mentorship is one that I aim to model in my own life. My time as a CA remains a highlight of my time at Stanford, and I'm grateful to Annette and all of the other HumBio folks (including my partner, a former B-side CA!) who made it all happen.

— Autumn Albers, class of 2011 (A-side CA, 2011-2013)



HumBio CAs, 2013



Annette Salmeen

Annette Salmeen is the definition of a true scholar-athlete. Salmeen became an all-star swimmer in high school, where she was a Michigan state champion in the 100-yard butterfly and a three-time state champion in the 500-yard freestyle. While at the University of California, Los Angeles for her undergraduate degree, Salmeen shone on the university's swim team, winning All-American honors four times, an NCAA championship in the 200-meter butterfly, and a bronze medal in the 1995 World University Games. Salmeen went on to represent the United States at the 1996 Summer Olympics in Atlanta, Georgia, where she won a gold medal in the women's 4x200-meter freestyle relay. On top of her athletic achievements, Salmeen completed an undergraduate degree in Chemistry and earned a Rhodes scholarship to study Biochemistry at Oxford University. She then went on to complete her post-doctoral fellowship at Stanford before joining the Human Biology team.

of learning modules to helping faculty produce media content and illustrations, Seligo has brought the faculty's pedagogical visions to life with technology.

Most recently, Seligo has played an instrumental role in Human Biology and across the university by assisting faculty with the transition to remote teaching. He also undertook the task of converting the team's ideas for virtual graduation celebrations in 2020 and 2021 into meaningful events appreciated by the graduates, families, and the larger community.

Human Biology Moves to Building 20

In the mid-2000s, the limited physical space allotted to HumBio was becoming more of a challenge.

“One of the big issues was that we were really cramped on space. I was threatening to hang the next new hire from a hammock in the reception room for her office because we literally didn't have any place to put her,” recalled Boggs (40th Anniversary Interview, 2011).

With support from the Dean's Office, Boggs put in a request to move the Human Biology faculty and staff offices to a larger space. After a year of lengthy discussions with the Stanford administration, Boggs received approval to move the HumBio offices across the main quad from Building 80 and 100 and into Building 20 in 2006.

Creation of the Core Course Coordinator Position

The core course coordinator position was created in 2007 to assist in the organization and development of the core course

sequence that all majors are required to complete. The position was configured such that the coordinator would oversee and train the full-time teaching assistants, now known as course associates (CAs), and work closely with the core faculty to prepare and manage the lectures, content, and assessments of the core.

The first core course coordinator was Nicole Dudukovic, who had recently completed her doctoral degree in psychology at Stanford University. She was later followed by Danielle Liubicich, Cammy Huang-DeVoss, and Noa Pinter-Wollman.

In the fall of 2012, Human Biology welcomed Annette Salmeen, who continues in the role to this day. During her time as the coordinator, Salmeen has raised the professional standards of the course associates through formal pedagogical training, consistent mentoring, and attention to individual development. She establishes high expectations for responsibility and intellectual engagement among the CAs while supporting their growth with patience and kindness. In addition to her work in the core, Salmeen also teaches two courses on biology and big data.

Shirley Feldman, Associate Director, Retires

After an influential thirty-seven years with Human Biology, Shirley Feldman retired from her position as associate director in 2008. A developmental psychologist and self-described “founding mother” of the program, Feldman was instrumental in the program's development from its inception, helping to grow it into the largest

undergraduate program at Stanford. For many years, Feldman taught innovative lectures on the biology and psychology of intelligence in the core and seminar courses on adolescence and child development.

In 1996, Feldman became Associate Director of Human Biology. During her tenure, she continued to help the program flourish, and she raised the bar for student research. “I’ve marveled at [the program’s] growth and I’ve been really privileged to have been a part of this absolutely stellar program,” Feldman reflected (HumBio 40th Anniversary Interview, 2011). She not only streamlined the upper-division course offerings and expanded the curriculum’s depth, especially in the social and behavioral sciences, but she made significant improvements to the undergraduate Honors Program’s application process, timeline, and research methodology. Her hard work and dedication to HumBio earned her the 2008 Lloyd W. Dinkelspiel Award for Distinctive Contributions to Undergraduate Education.

She was devoted to an interdisciplinary approach to problem-solving and research and inspired countless faculty and students alike with her can-do attitude and desire to improve the undergraduate education and experience.

“Thomas Carlyle’s definition of genius is ‘the transcendent capacity for taking pains, first of all,’” Lia Cacciari shared at Feldman’s farewell party. “Each of us individually and the program as a whole have benefited for many years from that special genius of Shirley—to take pains, to care par excellence. It will be quite an adjustment to do without her. Her legacy



Shirley Feldman

is truly a cornerstone of HumBio’s rich past and present success, and it will always be cherished in HumBio’s future” (HumBio Newsletter, Fall 2008).

Katherine Preston Named New Associate Director

In 2008, Human Biology welcomed Katherine Preston as the program’s new associate director and a lecturer in ecology, evolution, and plant biology.

Preston was not new to Stanford; she had previously worked as a National Science Foundation Postdoctoral Fellow at the university and had taught botany and plant evolutionary ecology from 1997 to 2006.

As part of her role as associate director, Preston took charge of the HB-REX and honors programs, coaching students in writing and research skills, matching undergraduates with suitable research projects, and building a sense of community among them. In 2012, Preston joined the core instruction team, teaching topics in ecology, evolution, and biodiversity to students in HumBio 2A, *Genetics, Evolution and Ecology*, and HumBio 2B, *Culture, Evolution, and Society*. In addition to her work for the program, Preston has served on many university committees and advisory boards, thereby strengthening the ties between HumBio and the broader Stanford community.

Preston was awarded the Bernfield Director’s Award in 2010 to recognize her important contributions to the program,

A great thing about Shirley Feldman is her superb organization skills. I remember attending her core lectures in the 1980s, looking for ways to hook together some themes for fall and winter core classes. I noticed then that her lectures flowed like a perfect outline - succinct, methodical, and logical. Whether in class, the upper-division committee, or the honors program, we look to Shirley as a source of sound logic and organization.

— Bill Durham



Katherine Preston



Daniel Salkeld examining a flea-bitten prairie dog for disease

and, in 2013, she received the Human Biology Faculty Advisor Award after receiving enthusiastic nominations from both official and unofficial advisees.

Jhumki Basu Memorial Lectures

The Jhumki Basu Foundation was established in honor of Sreyashi Jhumki Basu, a 1998 Human Biology graduate who died from cancer in 2008. In collaboration with the foundation, the program invited two prominent scholars to campus to discuss science and adventure.

George Schaller, a senior conservationist for the Wildlife Conservation Society and the Vice President of Panthera, came to campus in February 2010 for the inaugural lecture, *A Naturalist in the World's Wilderness*. Best known for his fifty-plus years of conservation work with gorillas, tigers, pandas, and snow leopards, Schaller shared some of his discoveries with the community in the hopes of inspiring others to get involved in conservation efforts.

A year later, Human Biology hosted Frans B.M. de Waal, a Dutch American behavioral biologist, and Professor of Psychology at Emory University known for his work on the social intelligence of primates. In his lecture titled, *Morality Before Religion: Empathy, Fairness, and Prosocial Primates*, de Waal shared with the community his research on primates, dolphins, and elephants which has revealed that many animals are naturally

empathetic and predisposed to caring for and protecting one another.

Donation from Richard Hoffman to Support Epidemiology

In 2009, Richard Hoffman, a 1971 Stanford biology graduate, brought to Stanford a proposal to fund a pilot epidemiology course for undergraduate students. The medical detective work of epidemiology that he discovered in an assignment as the head of infection control in rural Colorado launched Hoffman into a long and illustrious career in public health. He wanted to introduce Stanford students to the field, and Human Biology was very enthusiastic about his proposal.

“I thought Stanford should offer undergraduates an introduction to public health and epidemiology, but that was missing from the curriculum,” Hoffman said in a 2012 interview. “The ‘demi’ part of epidemiology is people, it’s humans. So it’s a perfect match for the Human Biology Program” (Stanford Benefactor Story, Spring 2012).

Hoffman first provided funding for the pilot of Human Biology 151, *Introduction to Epidemiology*, taught by Daniel Salkeld in 2009. The goal of the course was to introduce students to the basic principles of epidemiology, exposing them to the fields of epidemiology and public health early in their educational careers.

With terrific reviews and high enrollments for three consecutive years for the pilot class, Hoffman moved forward and established a \$1.5 million endowment in 2011. As a result, the program has been able

To me, HumBio was about understanding the many connections between the molecules and cells we're made of, the cultures we're steeped in, the physical environments we live in, and much more. If I were to go back, I would tell myself that what you can ask or learn or do in HumBio is limited only by your curiosities — about food, music, data, immigration, genomics — and your ability to understand their connections to what it means to be human.

— Edric Zeng, class of 2019

to support student research in epidemiology and offer multiple courses in the field of epidemiology, including HumBio 154B, *Principles of Epidemiology*, HumBio 154C, *Cancer Epidemiology*, and HumBio 57, *Epidemic Intelligence*.

Human Biology Turns Forty

“In 1971, Richard Nixon was president, the average cost of a new home was approximately \$25,000, Apollo 14 landed on the moon, and the Program in Human Biology graduated its first class. In celebration of this momentous occasion, Human Biology is throwing a birthday gala that features talks by noted faculty and alumni, refreshments, birthday cake, and good company” (HumBio Newsletter, Summer 2011).

In October 2011, Human Biology celebrated the fortieth year since its inception. More than four hundred students, alumni, friends, faculty, and staff came together to celebrate one of Stanford’s first interdepartmental programs and one of its perennially largest majors. This joyful gathering also brought to campus some of the visionary thinkers and remarkable educators who founded the program to reflect on the program’s origins and recognize its growth. Alumni caught up with old friends and made new connections across generations, united by their shared affection for HumBio.

Four keynote speakers encouraged guests to think about securing the future of the human species in the face of growing challenges. Don Kennedy, Stanford University President Emeritus and HumBio



Panel discussion at HumBio’s 40th Reunion, 2011

founder and early program director, gave a speech entitled *Climate Change, Energy Policy, and Political Log-jam*. He shared his views on the health repercussions of our human ecological footprint and anthropogenic global climate change, and he entreated the audience to spread awareness of growing environmental and health policy dangers. Ashley Boren, the Executive Director of Sustainable Conservation and a HumBio class of 1983 graduate reminded the group that “environmental problems are hard to solve but they are worth the effort” in her speech, *Leveraging Partnerships that Promote Sustainability*. In *Clinical Trials and Evidence-Based Medicine: What You Don’t Know Might Hurt You*, the Director of ClinicalTrials.gov, Deborah Zarin (HumBio ‘77) discussed the dangers of the selective publishing of research findings and the great success that her organization has had in countering the misleading practice. And Nathan Wolfe (HumBio ‘92), the founding Director of Global Viral Forecasting Initiative and the program’s Lorry Lokey Visiting Professor in Human Biology, delivered a talk entitled *Before it Strikes: Viral Forecasting for Pandemic Prevention*. In it, he discussed microbes and argued, with prescience, that with the increasing frequency in travel, microbes are far less contained than in the past, potentially leading to disastrous outbreaks.

The closing highlight of the celebration



40th anniversary cake with Don Kennedy, David Hamburg and Sandy Dornbush in background



40th anniversary cake



Paul Fisher and Robyn DUBY at the 2012 HumBio Reunion



Paul Fisher

was a whimsical three-tiered cake, designed by HumBio students. Intricately decorated with primates swinging in trees, Charles Darwin, cell organelles, and the globe, the cake symbolized what makes Human Biology so special: a melding of biological, social, and behavioral perspectives on the human condition. HumBio's fortieth birthday celebration highlighted how inspiring and empowering the program had been in its first forty years of existence.

Paul Fisher Becomes Director

In 2012, Paul Fisher was appointed as Bing Director of the Program in Human Biology. Fisher, the Beirne Family Professor of Pediatric Neuro-Oncology, had long ties to and deep affection for the program as an alumnus (class of 1985) and head TA in the core (1984-5). Fisher's first faculty appointment was at Johns Hopkins University, but he returned to Stanford in 1997, where he founded the pediatric brain tumor program at the Lucile Packard Children's Hospital. Just a few years later, he introduced an upper-division HumBio course, HumBio 154, *Cancer Epidemiology*, a consistently well-received offering. Fisher then joined the core teaching team in 2018 as a co-instructor in HumBio 4A, *The Human Organism*.

As an alumnus, Fisher brought a unique perspective that incorporated his experiences as a student, a core course associate,

clinician, researcher, educator, and administrator. His overarching goal for his directorship was to set the program up for continued success in a rapidly changing world by providing students high-quality courses and essential qualitative and quantitative skills. He accomplished this by engaging the staff in two significant initiatives. First, he identified and drafted descriptions of three core capacities that the program seeks to develop in its majors. Second, he led the effort to establish a rigorous system for reviewing each course in the curriculum on a roughly three-year cycle and requiring changes where necessary.

Under Fisher's direction, Human Biology flourished in other ways as well: its undergraduate offerings now included minor tracks in global health, health policy, and epidemiology; faculty were recruited to create a robust set of new course offerings in statistics, ethics, and the opioid epidemic; paper forms were replaced with a dynamic online tool for advising and declaring; and a more comprehensive set of assignments was designed to meet the university writing in the major (WIM) requirements.

Three Key Capacities Identified

By asking what all HumBio majors should expect to gain from the program, regardless of their concentrations, three key capacities emerged: scientific communication, data analysis, and scientific literacy. The work of building these capacities entailed developing specific skills that would be useful to students on any career path and would establish Human Biology graduates as leaders in addressing the human condition.

Communication: Students build their written and oral presentation skills so that they may communicate ideas and information accurately and effectively and engage with audiences from multiple disciplines and with various levels of subject expertise.

Data Analysis: Students learn to examine and analyze data carefully to draw conclusions regarding patterns of human behavior and function.

Scientific Literacy: From peer-reviewed articles to popular science journals, students learn to interpret tables and figures and to evaluate evidence in support of claims.

Ensuring High-Quality Courses That Build HumBio's Key Capacities

These three pillars provided a strong foundation that structured the evaluation and improvement of Human Biology's curriculum. For each capacity, the team identified a set of discrete and specific abilities that instructors could promote through activities and assignments in their courses. The curriculum committee, chaired by Anne Friedlander, began working its way through the entire set of HumBio courses, assessing several courses each quarter for quality of content, instruction, and assessment. Under this schedule, each course would be reviewed every few years.

During the review, the curriculum committee expected to see evidence that the learning goals for a course included making progress towards at least one key capacity, and that classroom activities were designed with those goals in mind. Instructors whose courses were evaluated would receive helpful feedback for improving their courses. Newly



Craig Heller with student at HumBio Core poster presentations

proposed courses would face even more scrutiny, with an evaluation occurring after the first rendition of the course and then, pending success, continuing reviews as with existing courses. This close attention to the overall HumBio curriculum, both in terms of course quality and enhancement of building capacities, was an important advance for the education of Human Biology students.

Capacities and Writing in the Major (WIM) in the Core

The core anchors every Human Biology major's educational experience, thus it was essential to strengthen its role in building all three key capacities. This presented pedagogic and logistical challenges: core courses were already rich with content and with interdisciplinary lectures designed to highlight connections between the A- and B-sides. To avoid overpacking the courses, capacity-building exercises needed to be integrated into existing assignments. Attention to capacity-building in the core was focused on two main areas: expanding WIM activities to include all three-quarters of the B-side and introducing data analysis and critical scientific literacy into both A- and B-side courses.

The core was well suited to an expansion of the WIM requirement to encompass all three B-side courses, as one of the B-side courses already fulfilled this component of the major. The university's WIM requirement directs each degree-granting unit to train its students "to write effectively in discipline-specific formats and styles"

I am forever grateful for HumBio. As I reflect on my time at Stanford, I truly appreciated the opportunities that Hum Bio provided me. Firstly, the ability to choose and design an area of concentration taught me what it means to be an adult learner and to take charge of my education. This has certainly continued to have a lasting impact in my career and is something I emphasize to my students and fellows at UC Davis. Secondly, I am so appreciative of the fantastic mentorship I found in Drs. Mary Jacobson and Carol Hutner-Winograd. Both were instrumental in my pursuit of a medical career but they also were influential in helping me shape what I wanted out of my career as a clinician-educator and woman in medicine.
— Florence Chau-Etchepare,
class of 2007



Eunice Rodriguez teaches upper-division courses on health policy and global health disparities



Catherine Heaney teaches an upper-division community health course



Jorah Dannenberg

Human Biology has exposed me to the beauty of interdisciplinary studies and shown me how I can bridge my interest in biology with my passion for education. The faculty and design of the Human Biology major allowed me to explore different areas of concentration before landing on Behavior and Development. I am grateful to the Human Biology department and encourage everyone to consider HumBio in their academic endeavors!

— Sessa McMinn, class of 2020

(WIM Requirement, Program in Writing and Rhetoric). Because “discipline-specific” is difficult to define in a highly interdisciplinary major such as Human Biology, majors need to be versatile writers and speakers who can adapt to the needs of their audiences and the conventions of a given genre. The B-side faculty had long recognized this need, and there were already strong assignments in written and oral communication in all three B-side courses that asked students to address a range of audiences (specialists, the public, or policymakers) in various formats (essays, opinion pieces, scientific posters, grant proposals, and policy memos). Creating a year-long WIM experience was a matter of aligning these existing assignments with the WIM learning goals and maintaining cohesion across quarters. This expansion was implemented during the 2017-2018 academic year.

Similarly, data analysis and critical scientific literacy had been taught in the core since its inception – perhaps most memorably through Professor Bill Durham’s famous lactose module – however, attention to these skills was not systematic. To assess skill-building activities in the core, a team composed of Core Course Coordinator Annette Salmeen, Associate Director Katherine Preston, and Writing Specialist Shay Brawn met regularly during the summers of 2015 and 2016 to map core assignments onto the three capacities and their specific associated skills. With this map, they revealed gaps in training and

identified opportunities for students to engage with primary scientific literature and analyze data. As a result of their efforts, assignments in the core are now designed with all three capacities in mind, even as the topics and content of the assignments change from year to year.

Faculty Fellows Established to Support Large Interdisciplinary Programs

The creation of the Faculty Fellows Program, funded by the Dean’s Office from 2014 to 2021, provided Human Biology with the means to further develop its educational experience for its students.

One of the ways the program used these funds was to encourage faculty across the School of Humanities and Sciences to teach in the program and to compensate faculty members who developed new courses in the humanities specifically designed for the Human Biology major. The program’s matching funds were also provided to the faculty members’ home departments.

An emphasis was placed on incorporating humanities classes into the curriculum to encourage students to explore humanistic approaches to understanding the human experience. One of the first courses established was HumBio 174A, *Ethics in a Human Life*, taught by Jorah Dannenberg, an assistant professor of philosophy. The class addressed a series of ethical questions that arise in each stage of human life, from the decision to reproduce to personal identity to autonomy at the end of life. Other courses that were also sponsored included the extremely popular *Literature and Global Health* taught by Alvan Ikoku

(HumBio '96), an assistant professor of comparative literature and medicine, and *The Nervous Age: Neurosis, Neurology, and Nineteenth-Century Theatre* taught by Matthew Smith, a professor of German studies and theater and performance studies.

The funds also supported faculty members Jennifer Wolf and Catherine Heaney, who provided students with individualized and in-depth support and advising for their independent honors theses.

New Courses on Statistics and Data

In addition to bringing real-world experiences and topics into course content, Fisher felt it was important to formulate classes that better addressed the data analysis capacity of Human Biology. In the increasingly data-intensive fields of biology and medicine, Fisher and the HumBio team believed that students need strong statistical and big data skills in order to function with confidence professionally. Three new courses were developed — HumBio 88, *Introduction to Statistics for the Health Sciences*, HumBio 89, *Introduction to Health Science Statistics*, and HumBio 51, *Big Data for Biologists: Decoding Genomic Function*.

In HumBio 88, Lianne Kurina, an associate professor of medicine in primary care and population health takes a data-driven and intuitive approach to providing students with the statistical tools they need to describe and analyze data in the fields of medicine and epidemiology. Using Stata, a statistical programming language, Kurina ensures that students understand why they are doing what they're doing, how and when it makes sense, and what the

limitations of statistical reasoning are. The class was immediately recognized as a success by students who felt that the class was effective, energetic, and would have a direct use in their future careers.

HumBio 89, taught by Kristin Sainani, an associate professor of epidemiology and population health, teaches students the foundations of probability and statistics, with a focus on analyzing data from the health sciences. The introductory statistics course teaches students how to read, interpret, and critically analyze and evaluate statistical data in medical and biological studies. Sainani has been praised for making statistics engaging and relevant to the students.

In 2017, *Big Data for Biologists* was introduced to the lineup of health sciences-related data courses offered by the program. Taught by Annette Salmeen, a Human Biology lecturer and the core course coordinator, and Anshul Kundaje, an assistant professor of genetics and computer science, HumBio 51 was designed to introduce students to bioinformatics by working with large biological datasets using UNIX and Python. Salmeen and Kundaje guide students through computational skills such as editing text files, formatting and storing data, visualizing data, and writing data analysis scripts. Students have loved the challenge of analyzing data to identify and understand causal variants for disease.

Five Faculty Members Named Catherine R. Kennedy and Daniel L. Grossman Fellows

Walter Scheidel was appointed the Catherine R. Kennedy and Daniel L. Grossman Fellow

Human Biology became my home away from home: inspiring teachers, wonderful students, the opportunity to be a student advisor, teaching assistant, design and teach my own class, and to do research with Jane Goodall on the wild chimpanzees in Gombe, Tanzania. I could not have asked for a richer, fuller, more challenging undergraduate major that prepared me well for my 40+ years as a family physician and farmer, wife, and mother.

— Emily Polis Gibson, class of 1976



Lianne Kurina



Kristin Sainani



Anshul Kundaje



Katherine Preston speaks at the 2015 Senior Symposium



Walter Scheidel



Joe Nation congratulates students during the virtual 2021 celebration

in Human Biology in 2013, having joined the teaching team of HumBio 2B, *Culture, Evolution, and Society* the prior year. The Dickason Professor in the Humanities and a professor of classics and history, Scheidel is a prolific Roman historian whose work focuses on ancient social and economic history, specifically historical demography, labor, slavery, and state formation. His role in the core has been to explain the origins of social arrangements and cultural practices that influence nearly every aspect of our daily lives.

In 2014, Human Biology was honored to name four additional faculty members Kennedy Grossman Fellows: Professors David Lyons, Joe Nation, William Talbot, and Laurence Baker.

David Lyons, a professor of general psychiatry and behavioral sciences, teaches HumBio 4B, *Behavior, Health, and Development* in the core, digging into research and theories on human behavior, health, and life span development. Lyons trains students to examine experimental designs and statistical analyses with a critical eye. He has mentored HB-REX students for many years and has advised numerous honors theses. Lyons has also served on the program's executive committee for several years.

A professor of the practice of public policy, Joe Nation provides students in the core (HumBio 3B, *Environmental and Health Policy Analysis*) with insight into

environmental policy, climate change, health care, and California state issues. Having served three terms in the California State Assembly, Nation brings more than his academic credentials into the classroom; he demonstrates the power of learning to communicate scientific ideas to policymakers and translate abstract policy issues for the public. In addition to the core, he teaches advanced courses in health policy and climate science policy. Nation has also served on HumBio's curriculum committee.

William Talbot, a professor of developmental biology, covers a broad range of fundamental topics in biology in the core, including DNA replication, the control of gene expression, and the genetics underlying development. He is currently one of the core instructors for HumBio 2A, *Genetics, Evolution, and Ecology* and formerly co-taught HumBio 3A, *Cell and Developmental Biology*, to which he still contributes several lectures each year. Talbot is well-known for clear and logical explanations of the many complex multi-step processes that cells use to keep themselves running.

Laurence Baker is a professor of health research and policy and a senior fellow at the Stanford Institute for Economic Policy Research (SIEPR). He shares his expert knowledge of the U.S. healthcare system and health policy with students in the core course, HumBio 3B, *Environmental and Health Policy Analysis*. More recently, Baker has developed advanced courses in health policy to expand the options for students concentrating in that area. He also serves on HumBio's executive committee.

Conway Donation Supports the Development of S-FACT Program

One of Fisher's administrative goals for the program was to replace paper copies of student declaration records with a more flexible and accessible digital program. In 2014, Brian and Karen Conway (parents of Alison Conway, class of 2014 and a student advisor in 2013-2014) made a generous donation to support the HumBio student experience. Fisher directed their donation towards an online system that would streamline the logistical part of the declaration process and make time for more personalized advising. With the support of the Conways' gift, a new tool was developed called S-FACT, the Student-Faculty Advisor Course of Study Tool.

The S-FACT tool was designed to replace the somewhat cumbersome goldenrod colored paper system that had long been used for major declarations. S-FACT made the workflow of advising and declaring a smoother and easier process for all involved. It allowed student advisors to spend less time handling declaration paperwork and more time on substance and support for the students.

Human Biology Reauthorized by University Faculty Senate

As is standard with all interdepartmental programs at the university, Human Biology underwent a formal review by a committee of the University Faculty Senate during the 2015-2016 academic year. The review committee examines all aspects of the program to make sure that students are getting the highest quality educational



David Lyons with students at HumBio core poster session, 2012

experience possible.

The program passed the review with flying colors, gaining re-authorization as an interdisciplinary program for eight years, the maximum term granted by the university. This decision reflected the strong confidence that the senate and the university had in the program.

During the re-authorization process, Human Biology successfully petitioned to add a Bachelor of Science degree option. Fisher and Preston argued that a BS degree would more accurately reflect the technical and biomedical focus of many HumBio majors' courses of study. The option to pursue either a BS degree or a BA degree in Human Biology was immediately appealing to students. Among the 2021 graduates, sixty-five percent obtained BS degrees.

Roeland Nusse named Reed-Hodgson Professor in Human Biology

Roeland Nusse, the Virginia and Daniel K. Ludwig Professor in Cancer Research, was named the Reed-Hodgson Professor in Human Biology in 2018.

Nusse is a developmental biologist recognized internationally for his pioneering research on cancer and his discoveries about the signaling between cells during normal development and in cancer. In 2017, he was awarded the Breakthrough Prize in Life Sciences, which honors scientists whose transformative research has the potential to improve human life in fundamental ways. In 2020, Nusse received the Canada Gairdner



William Talbot

Our [Human Biology] professors are leaders in their field. They bring their expertise to the classroom and encourage critical thinking and problem solving within a multidisciplinary paradigm. I regularly use this concept today in my approach with my patients and in the hospital, my delivery of care, and my problem solving. When a patient presents with an issue, I am considering her as a complete person and not just a body or an illness to be cured. I strive to understand the patient's problem from the same multi-disciplinary framework introduced to me by my HumBio professors.

— Kameelah Philips, class of 1999



Roeland Nusse



Michael Frank

HumBio allowed me to cultivate a deep passion for combatting inequities in healthcare and education, with its interdisciplinary approach challenging my existing beliefs, teaching new knowledge, and impelling me to action. From brain plasticity to child development to issues of public health, I am so grateful for all that HumBio has taught me and am confident that it has made me a better future doctor and person.

— Alexa Thomson, class of 2021

International Award, which recognizes researchers whose scientific contributions have increased the understanding of human biology and disease and contributed to the relief of human suffering.

In HumBio 3A, *Cell and Developmental Biology*, Nusse inspires students with his humor, his ability to simplify complex biological concepts, and his commitment to training and promoting young scholars. Nusse has been a dedicated part of Human Biology; in addition to teaching in the core, he has mentored many students in their research and honors theses over the years and has served on the program’s executive committee.

Michael Frank Named David and Lucile Packard Foundation Professor

In 2018, Professor Michael Frank, an associate professor of psychology and, by courtesy, of linguistics, was named the David and Lucile Packard Foundation Professor in Human Biology.

Frank is a developmental psychologist who leverages large datasets and diverse methods to study children’s language learning and development and how these interact with their understanding of the social world. Frank was awarded the Rising Star designation by the Association for Psychological Science in 2011 for his promise as a researcher. Frank brings his scholarship and engaging classroom presence to the core course, HumBio 4B, *Behavior, Health, and Development*. He has also mentored several HumBio students in their research and honors theses and has served on HumBio’s executive committee.

Established in 1999, the David and Lucile Packard Professorship in Human Biology honors the lives and work of Mr. and Mrs. Packard. As a member of the Stanford Board of Trustees, Mr. Packard, who joined William Hewlett to form the Hewlett-Packard Company in 1939, played a key role in the move of the medical school from San Francisco to the main campus in the late 1950s and in the growth of the Stanford Medical Center. Mrs. Packard was actively involved in fundraising and planning for the Children’s Hospital, which was later named in her honor. She had a keen interest in children’s health and development. The first faculty member to hold the Packard Foundation Professorship in Human Biology was Arthur Wolf, a professor of anthropological sciences, who held the chair from 2001 to 2015. Frank is the second faculty member to hold the professorship.

Reform of the Human Biology Minor and the Capstone Requirement

“The decision to reform the minor requirements came about in Spring 2017, when the program realized that people wanted to narrow their focus more,” Fisher explained. The program decided that, like the major, the minor should allow students the ability to customize their degree to dive deeper into a subject of their interest. The previous requirements – the full core sequence and a single additional HumBio course – were replaced with a more intentionally structured set of courses.

Beginning in the fall of 2018, students minoring in Human Biology were able to choose the three core classes (at least one

from each of A- and B-sides) that best supported their interests, along with three cohesive electives from one of three minor sub-plans: global health, health policy, or epidemiology. These sub-plans were chosen based on the general trends and interests of HumBio majors and partnerships that the program had with other departments throughout the school.

With growing interest among college students in public well-being and global connection, Fisher felt it was important that these new sub-plans allow students to dig into the question of “how do we help the world?”

Bill Durham Retires

After over forty years of foundational contributions to the program, Bill Durham, Bing Professor in Human Biology, retired from teaching in 2018. A world-renowned anthropologist known for uniting biological and cultural anthropological theory, Durham taught in the core for the majority of its existence. Durham’s lectures, especially the legendary lactose/lactase module, were always inspiring. Just before retiring, he was the 2018 recipient of the Stanford Humanities and Sciences Dean’s Award for Lifetime Achievements in Teaching.

Durham also served as Human Biology’s Director from 1992 to 1995. During his tenure, the core underwent major revisions, incorporating new topics and material in social sciences such as anthropology and economics, and expanding existing modules. To augment the success of the honors program, he started the Human Biology Summer Honors College Program



HumBio community applauds Bill Durham at 45th Reunion Celebration, 2016

to provide students with additional time, support, and training in their research and projects. Durham also introduced field seminars, a new hands-on learning experience that brought undergraduates and alumni together for extended coursework and field experience in locations such as the Galápagos Islands, Costa Rica, and the Peruvian Amazon.

In 2016, an endowed teaching fund was established in Durham’s honor to help support instructors in the core and upper-division HumBio courses. This announcement coincided with Human Biology’s forty-fifth anniversary and a special reunion celebration was hosted during Reunion Weekend to commemorate his exemplary HumBio footprint.

“What connects everyone here today to Bill Durham: his inimitable teaching,” Fisher shared before Durham’s talk at HumBio’s forty-fifth reunion. “By conservative estimates, he has reached over six thousand Human Biology majors, and well over a couple thousand other undergraduates at Stanford. [...] This endowed fund will support teaching only in Human Biology in perpetuity, whether in the core or other HumBio classes, with the stipulation that the spirit and enthusiasm always capture the pedagogy that is Bill Durham.”

New Logo

In an effort to better capture the program’s current spirit, the team decided in 2015 that

Freshman year on the Farm, I walked in to try out the first lecture of Bill Durham’s Coevolution course in order to satisfy my science distribution requirement. The class was fabulous and fascinating from the very first lecture so I stayed. I asked Bill towards the end of the quarter, “where can I learn more of this stuff?” and he sent me off to sign up for the HumBio core in sophomore year. Ultimately, I switched from Political Science to HumBio and from a life in government or law to a career in biomedical science, neurosurgery, surgical education, and medical policy. I use my HumBio taught skills every day and, if I needed to describe myself in a single phrase, it would be Human Biologist!

— Nathan R. Selden, class of 1986



Don Kennedy and Bill Durham pose during Reunion Weekend 2012



Lianne Kurina at 2019 commencement



Jessica Frydenberg

it was time to update the program's logo. The new logo — three overlapping speech bubbles containing human footprints, a DNA strand, and a globe — is intended to reflect the interdisciplinary education that Human Biology embodies.

Lianne Kurina Becomes Director

Lianne Kurina was appointed Bing Director of the Program in Human Biology in September 2019. Kurina, an epidemiologist at Stanford's School of Medicine, teaches statistics and epidemiology in the program. Her move to Stanford from the University of Chicago in 2013 marked a return, as Kurina completed her Ph.D. in the Biology Department at Stanford in 1998. A talented instructor, Kurina's courses were the two top-rated offerings in the program in 2020.

In addition to her teaching and work as the new program director, Kurina conducts research focused on the health and well-being of active-duty service members. Her studies utilize a data resource created in collaboration with military colleagues and brought to Stanford in 2015. Together with partners at Stanford and across the military, Kurina has published on heat injury, musculoskeletal injury, women's health issues, mental health, and disability among US Army soldiers.

To prepare for the position of director, Kurina sat in on one lecture for each of the

eighty-five classes offered or cross-listed by Human Biology from September 2018 to June 2019, to gain facility with the academic offerings experienced by our students and to make personal connections with all of the faculty involved in the program. Taking on her role as program director, Kurina brought new energy to the program and the specific goals of strengthening the development of student capacities, enhancing pathways to research for all HumBio students, and strengthening the sense of community among students and faculty alike.

Jessica Frydenberg Hired in New Communications and Outreach Role

With Robyn Duby's retirement from her role as the alumni relations officer in the summer of 2019, the HumBio team reconfigured the position to place a greater emphasis on program communications. This switch in position emphasis was timely, given the importance of regular communications with students and alumni during the pandemic and the diverse responsibilities related to the program's fiftieth-anniversary. In September 2019, Jessica Frydenberg, who earned degrees in communication and sociology, was hired as the new communications and outreach officer. Frydenberg's design skills and creativity bring a fresh approach to program communications, events execution, and the program's digital presence.

Russell and Anne Fernald Retire

After three decades of teaching and leadership in the HumBio program, Russell and Anne Fernald officially retired from their teaching duties at Stanford University

in the fall of 2019.

A psychologist widely known for his research on how social behavior influences the brain, Russ first joined Stanford's Psychology Department in 1990. Soon after his arrival, he began lecturing in the core in HumBio 4A, now known as *The Human Organism*. In 1994, Russ was appointed the Benjamin Scott Crocker Professor in Human Biology, and he directed the Human Biology program from 1996 to 2003.

A leading expert in language development, Anne joined Stanford as a faculty member in the Department of Psychology in 1985. She went on to become the Josephine Knotts Knowles Professor in Human Biology and the Director of the Language Learning Lab in Psychology. Known for her passionate, thoughtful, and caring investment in her students and colleagues, Anne taught on the B-Side of the core for twenty-two years in the course currently known as HumBio 4B, *Behavior, Health, and Development*.

Two forward-thinking and talented investigators in their respective fields, Russ and Anne influenced and inspired many, including the countless students they mentored to success, such as Vinita Kailasanath (class of 2004) and Elsie Gyang Ross (class of 2004), who worked closely with Russ and Anne, respectively, during their time as undergraduates at Stanford.

When asked about working in Russ's lab on her honors thesis and resulting publication on hormone receptors, Vinita, an attorney, spoke fondly of her experiences. She loved that he always promoted positive culture. Russ highlighted the important



Russ and Anne Fernald walk their bicycles across campus late one afternoon, 2004

role that each team member played in the research they were doing and would always give credit where credit was deserved.

Similarly, Elsie, an assistant professor of vascular surgery and medicine at Stanford's School of Medicine expressed sincere gratitude for the incredible support and strong mentorship she received from Anne throughout her college experience, especially on her thesis on how infant-directed speech influences infant attention in different languages. She emphasized the devotion and energy Anne put into the personal and professional success of her and her classmates.

Jeff Gelles Donation Funds the Gelles Senior Symposium in Human Biology

In 2019, HumBio alumnus Jeffrey Gelles, class of 1985, made a generous gift to the program to support Human Biology's Senior Symposium, an annual day-long event during which the program's talented and innovative seniors present their honors thesis research and senior synthesis projects. This gift followed an earlier gift made by Gelles to help support the program. In Gelles' honor, the symposium was renamed the Gelles Senior Symposium in Human Biology. The inaugural Gelles Senior Symposium took place in a virtual format over two days in May 2020.

I worked in Russ Fernald's lab for my HB-REX internship. Russ embodied so much of the spirit of HumBio: he cared about the whole person and had many different interests. I have a vivid memory of sitting in Russ' office and sharing segments of a clementine as he asked me about my goals in life. He shared with me about how he used to be a diver, had lived all over the world, and had finally gone into research. He took each of those paths because in that moment he was excited and passionate about it. That life lesson of not following a straight and narrow path, but rather taking a winding path through life, has stuck with me. Russ made me feel seen as a person, and I think about his guidance almost every day!

— Haley Herring, class of 2015



Nausheen Mahmood '14 presents her honors thesis at the 2014 Senior Symposium



Laurence Baker

Laurence Baker Named Bing Professor of Human Biology

Laurence Baker, a professor of health policy and a senior fellow at the Stanford Institute for Economic Policy Research (SIEPR), was appointed the Bing Professor of Human Biology in 2019.

A globally recognized health economist, Baker investigates the economic performance of the U.S. healthcare system and other health care systems around the world. Baker has been sharing his expertise about the U.S. healthcare system and health policy with students in the core course, HumBio 3B, *Environmental and Health Policy Analysis*, since 2010 and in newly created upper-division courses focused on health policy.



Aliya Saperstein

Aliya Saperstein Named Benjamin Scott Crocker Professor of Human Biology

Aliya Saperstein, an associate professor of sociology and the Director of the Sociology Coterminal Master's Program was appointed the Benjamin Scott Crocker Professor of Human Biology in 2019.

A stellar Stanford teacher and scholar, Saperstein is a sociologist and demographer who shares her expertise on population change and the study of race and gender disparities with students in the core (HumBio 2B, *Culture, Evolution, and Society*). In 2016, she was awarded the Early Achievement Award from the Population Association of America, an award that recognizes a promising scholar who has



Maya Rossin-Slater

made distinguished contributions to population research early in their career.

The Human Biology program has a history of drawing on sociological perspectives thanks to sociology pioneer and HumBio founder, Sanford (Sandy) Dornbusch. Saperstein reintegrates this discipline into the core, establishing sociology as an anchor in Human Biology. She also currently serves on the program's executive committee.

Keeping HumBio Relevant

Current Topics: Throughout its fifty-year history, Human Biology has stayed true to its mission to train students to approach significant human problems from a range of perspectives, even as those problems have shifted and some have gained new urgency. In response, the program has continuously added courses that consider important current issues. Two examples are new courses that are focused on the opioid epidemic and health disparities.

In 2019, Margaret McNerney, a clinical assistant professor of psychiatry and behavioral sciences, and Michael Ostacher, a professor of psychiatry and behavioral sciences, launched HumBio 163, *The Opioid Epidemic: Using Neuroscience to Inform Policy and Law*. In the class, students learn the history and science of opiates and how public health policy could reverse the epidemic's damages.

HumBio 123E, *Health Economics and Policy: Exploring Health Disparities, Child Health and Healthcare Spending*, also made its debut in 2019, taught by Maya Rossin-Slater, an associate professor of health policy

and senior fellow at the Stanford Institute for Economic Policy Research (SIEPR). The class pushes students to think critically about the role the government and public policy play in issues such as socioeconomic disparities in population health outcomes, healthcare demand, health insurance design, and pharmaceuticals.

Both classes have been positively received, with students appreciating the relevant and timely topics as well as the thought-provoking guest lecturers and the professors' interdisciplinary teaching of the world of healthcare and health policy.

Incorporating Race, Ethnicity & Gender Into the Core: One important change that Kurina wanted to bring to the core was a more direct and considered set of content about gender, race, and ethnicity, dimensions that have profound impacts on the human experience. Relevant content has been introduced, most notably by Saperstein in HumBio 2B, *Culture, Evolution, and Society*. These critical areas will continue to be developed across the courses.

The Coronavirus Pandemic

Just six months into Kurina's directorship, the COVID-19 pandemic struck and the HumBio team pivoted quickly to bring the program through what has arguably been the most difficult period in the program's fifty-year history.

In March 2020, Stanford relocated the undergraduates from campus, and faculty began to provide remote instruction. These were profound adjustments for the students, faculty, and staff alike. With students dispersed across the globe, very little could



An empty Meyer Green during the pandemic

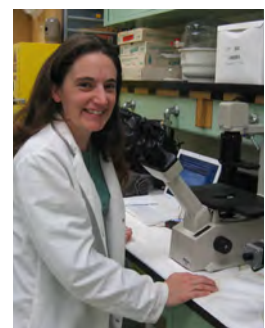
be assumed about the living and working conditions, or internet connectivity, or health status of the approximately four hundred Human Biology majors. The program had to adjust instruction, assessments, and grading accordingly.

The transition to remote teaching demanded numerous innovations from instructors, including ways to replace the sense of community that typically develops freely in a classroom. As just two examples, Anne Friedlander, an adjunct professor in Human Biology, incorporated dance breaks during her lectures, and Kurina began each lecture with students' photos of pets or favorite things to encourage sharing and connection.

Many faculty members were struck by an unexpected advantage of remote learning; that is, the increase in the number of questions asked and answered during lectures via the Zoom chat feature. Students seemed to feel less inhibited in the remote setting, especially since they could ask TAs questions privately. The key question now facing faculty is how to retain some of the benefits inherent in remote instruction in their in-class practice.

Maintaining the HumBio Community from Afar

The team worked hard during the pandemic to keep the sense of community alive, alleviate feelings of isolation, and promote wellness amongst HumBio students, faculty,



Margaret Mc Nerney



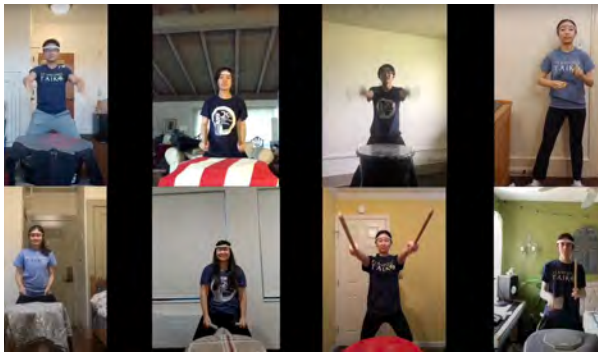
Michael Ostacher

In the spring of 1972, I was deciding on Bio vs HumBio and attended both classes. The lecture on the mosquitoes in the bromeliads of Trinidad by Dr. Colin Pittendrigh enthralled me and I was hooked on Hum Bio. I never looked back. All the classes were great preparation for med school and my life as a cardiologist. I'm spending the twilight of my career as a clinical professor at Stanford, teaching fellows, seeing patients, and assisting the pre-med advisors. A full circle!

— Eleanor Gwen Levin,
class of 1975



Stanford Talisman bring messages of hope in their performance of "Jerusalem"



Stanford Taiko perform across the country for the 2021 virtual celebration

I am so thankful HumBio allowed me to explore my interests in health from both a macro and micro level. I learned that our health is inextricably linked to the systems in place around us and I look forward to using my HumBio degree as a launching pad to a career in pushing the needle forward, so that more people can have a fair chance at achieving "good health." I will fondly remember classes like Global Public Health, The American Healthcare System and Health Policy, and Cancer Epidemiology for opening my eyes to the work that needs to be done in order to make the concept of good health more equitable for all.

— Neha Sidhu, class of 2021

and staff. Kurina started a blog to make personal connections to the community, sent frequent emails related to HumBio policy and in response to national events, and offered virtual tea times and game nights several times each quarter to provide a relaxing and fun gathering space. Kurina also did periodic bike rides and picture tours that she turned into slideshows to give students and faculty at a distance a window onto campus. HumBio faculty got together over several zoom meetings to share best practices and strategies for the new online teaching modality.

A month into the pandemic, the HumBio Spotlight team, a group of students who organize film screenings and discussions with faculty, approached HumBio with an idea to create a new platform to bring the community together. This virtual platform, Go The Distance, allowed members of the community to share posts about what they were reading, watching, or listening to, tips on how to maintain health and well-being during lockdown, and opportunities to



Aswhin Reddy '20 and Margaret Bruck '20 do a popular TikTok dance during the 2020 virtual celebration

connect with faculty and classmates on a deeper level. Much like a community book club, students and faculty could post and interact with one another as much or as little as they would like. The webpage provided an additional space for students to collaborate and connect.

To support the junior and senior students through the challenging times, Student Services Officer Samantha Cooper and Communications and Outreach Officer Jessica Frydenberg worked together to connect more students with the HumBio alumni network. The goal of HumBio Alumni Connections was to empower students to connect easily with alumni who have wisdom and opportunities to share. Over two hundred alumni from across the program's history and with a multitude of career types volunteered their time to connect with students. These alumni offered networking and career guidance, mentorship, and even potential career opportunities. By the end of the two-month program, more than three hundred students made connections with one or more alumni.

Virtual HumBio Graduation Celebrations

In the spring of 2020, it became clear that the university would defer all 2020 commencement celebrations and each department was left to determine how best to celebrate their graduating seniors, if at all. The program was determined to recognize the accomplishments of this special graduating class and worked tirelessly to create a meaningful event that recognized the students' accomplishments

HumBio June Celebration

Virtual Celebration on YouTube Live, 2020

and lives at Stanford. The event integrated student and faculty speeches, student photos and performances, and faculty and staff congratulatory photos wishing students well as they transitioned into the next stage of their lives.

By the following spring of 2021, it was confirmed that all department commencement celebrations would once again be held online. Buoyed by their success in 2020, the team created a virtual celebration for the class of 2021 that reflected the students' experiences over a tumultuous year and a half and celebrated the students' hard work, perseverance, and achievements. These events provided some much-needed light at the end of a difficult chapter for each of these classes.

Lia Cacciari, Student Services Officer, Retires

After over two decades of devotion to the Program in Human Biology, Student Services Officer Lia Cacciari retired from her post to focus on writing fiction and other creative pursuits.

In her twenty-three years with Human Biology, Cacciari shepherded over three thousand five hundred students through the program with patience, care, and empathy. Her ability to remain calm and composed allowed her to tackle difficult situations with a professional and thoughtful approach. She cared deeply about the success and well-being of every one of the students with whom she worked. Her generous spirit, sound guidance, and tireless work were invaluable to the program and the success of its students.

In 2009, Cacciari received the School of



Cardinal Calypso perform for the class of 2021 virtual celebration

Humanities and Science's Arnice P. Streit Service of Excellence Award for her work in assisting myriad majors and streamlining the advising process. In her awards interview, she said, "I help them navigate through the whole process of getting familiar with their course choices and the bigger picture. Students know they have a place to go to, and a person available to them to get their questions answered."

Jesse Calderon Hired as New Student Services Specialist

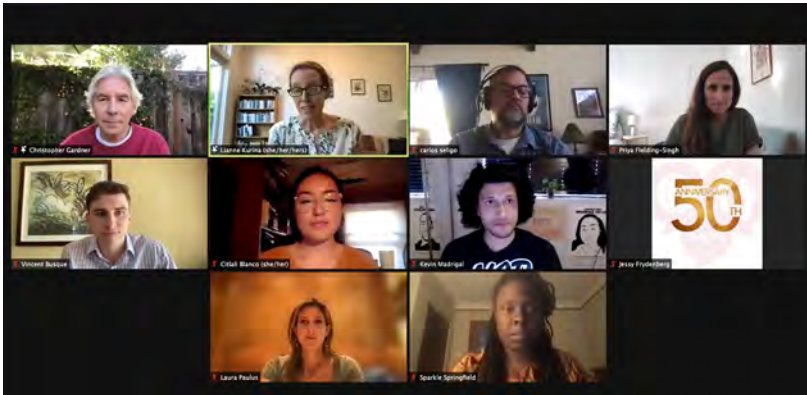
With Cacciari's retirement, Samantha Cooper took over as student services officer, and Jesse Calderon was hired as a student services specialist to provide administrative and operational support with major advising and academic services.

A Stanford Human Biology 2020 graduate, Calderon brought his experiences and involvement in the community as a recent graduate to his work in student services. As an undergraduate, Calderon chose to major in Human Biology because he appreciated the program's interdisciplinary nature and was inspired



Lia Cacciari

When she was not advising students or making sure that they could graduate, Cacciari immersed herself in the study of medieval history and the careful crafting of literary historical fiction. She is the author of a dramatic mystery novel set in 12th century northern England and she is currently completing a saga set in 7th Century Northumbria. While at Stanford, Lia joined archeological field trips to Pompeii and the northern reaches of the Roman Empire in Binchester, England.



Christopher Gardner and the HumBio panel discuss the intersections of food and health, society, and the environment



Jesse Calderon



Sara Cody

HumBio has taught me power of caring deeply for others and the world around me, and it has empowered me to use my passion and drive to work to make the world a better place. HumBio has taught me to see, hear, and empathize with others with vastly different lived experiences from my own. HumBio has taught me to believe in the power of myself and of those around me.

— Shravya Gurrupu, class of 2020

by the many driven, caring, and passionate individuals involved in it. This affection for the program and its people has carried over into his work. Calderon is extremely attuned to the needs of today’s students; he works hard to support each student and ensure their success in completing the program.

Celebrating Human Biology’s Fiftieth Anniversary

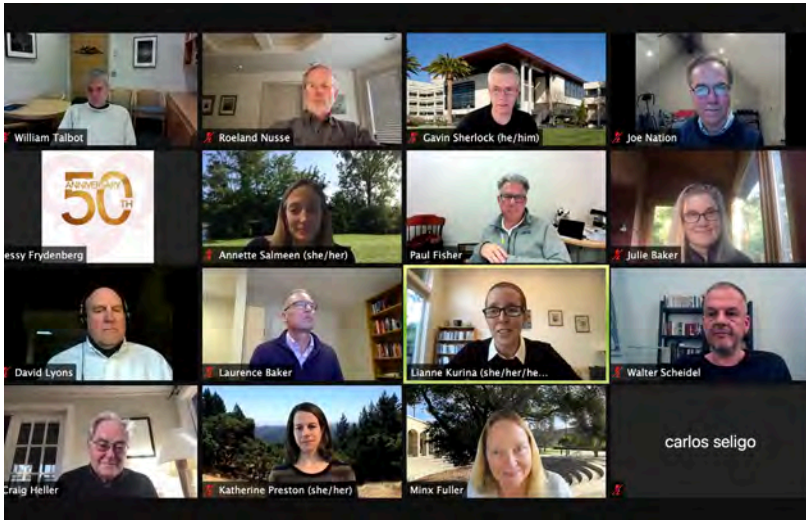
In 2021, the Program in Human Biology reached a major milestone in its existence, its fiftieth anniversary. Despite having to operate in a virtual format throughout the 2020-2021 academic year, the team was committed to organizing a series of events to celebrate the program, its students, and its alumni. The resulting sequence of virtual discussions was designed to start conversations within the community and share a glimpse of what makes HumBio the robust program it is today.

The kickoff event, *Core Strength: Vision and Change in the HumBio Core*, brought over one hundred and fifty alumni, faculty, current students, and the larger community together to discuss the current state of the core. Paul Fisher and Craig Heller, two former program directors with long histories in the core, described how the courses have changed over the years and what has remained the same. Other members of the core faculty team described some of the themes and topics they have introduced to reflect the current state of scholarship and keep the course connected to real-world issues that students care deeply about.

The next event, hosted in April 2021 and led by Christopher Gardner, the Rehnberg Farquhar Professor of Medicine at the Stanford Prevention Research Center, brought the community together to discuss the topic of food. *Food: At the Intersection of Health, Society, and the Environment* featured accomplished HumBio students, alumni, and program affiliates (Citlali Blanco ‘22, Laura Paulus ‘10, Kevin Madrigal ‘15, Vincent Busque ‘20, Sparkle Springfield, and Priya Fielding-Singh). These panelists shared their diverse perspectives on the question of how our personal food choices and the food system more broadly influence our health, social interactions, and the well-being of the planet itself.

In May 2021, nearly two hundred and fifty people turned out for *Keys to the Great Mysteries of The Galápagos: An Illustrated Talk with Professor Bill Durham* to listen to Durham discuss his new book, *Exuberant Life*. Durham shed new light on some of the classic mysteries of the Galápagos Islands, including the evolution of the tree finches, the lack of evolution in marine iguanas, and the lack of documentation on the penguins and flightless cormorants. He also shared with the community the often-surprising implications that these mysteries have for conservation in the archipelago today.

The fourth and final event leading up to the fiftieth reunion highlighted three exceptional alumni — Dr. Sara Cody ‘85, Dr. Russell Jeung ‘84, and Ms. Nicole Taylor ‘90 — each of whom has played a critical leadership role in response to the pandemic, the coinciding rise in anti-Asian violence, and the racial, economic, and health



HumBio Core faculty discuss the core and how it has changed and remained relevant over the years



Nicole Taylor

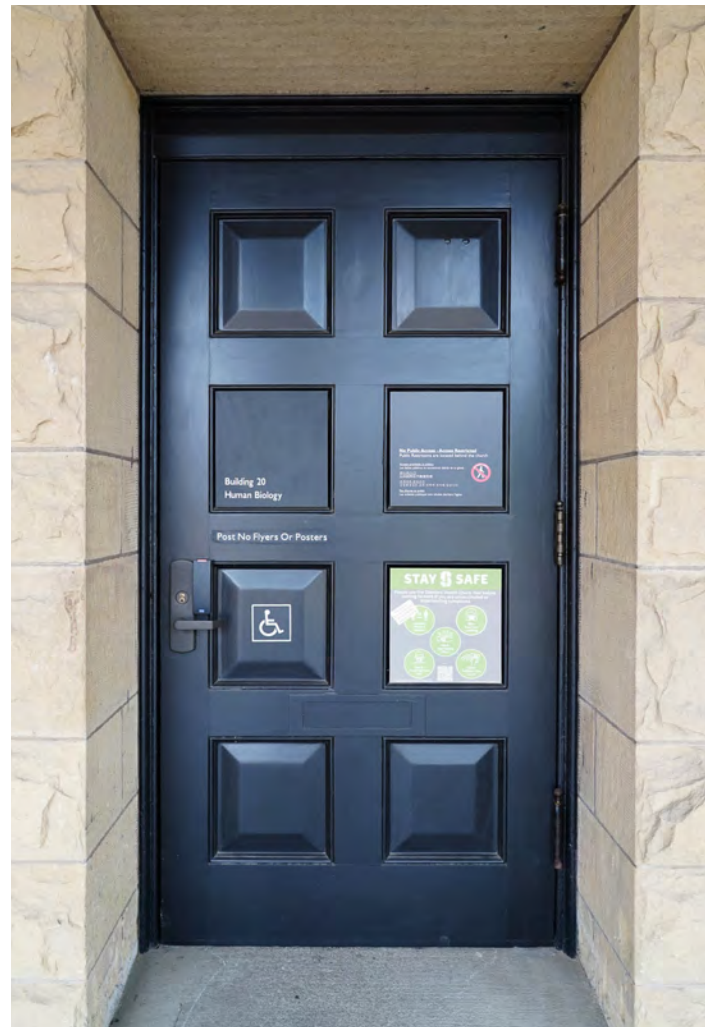


Russell Jeung

disparities made particularly visible over the last year and a half. In *Leading Communities Forward: Sharing Ideas for Meeting this Moment*, moderator Catherine Heaney, associate professor of psychology and medicine, and the panelists discussed what it means to be a leader, how their leadership has evolved, the importance of social connections in overcoming adversity, and how we can collectively work towards a safer and more equitable future for all.

After more than a year and a half apart, the program will return to Building 20 this fall and reopen its doors to the HumBio community once again.

As always, the program continues to change in response to the interests of new faculty, student input, and the changing times. As it has since 1970, the Program in Human Biology looks forward, now building on fifty successful years of innovation and excellence in education.





VISIONS FOR THE FUTURE

It was a privilege to step into the shoes of past Human Biology Directors in September 2019. At that time, my goals were to keep this illustrious ship sailing and to think hard about how to emphasize capacities and diverse ways of thought, and how to modernize the core. Little did I know that, six months into this position, we would all be launched into an era unlike any faced before by the Program in Human Biology, Stanford, indeed the world itself.

Before diving into further reflections, I would like to acknowledge the tremendous number of lives lost to the ongoing pandemic. For our students, there is also the loss of time at Stanford and the consequent elimination of in-person classes, research presentations, awards ceremonies, and program commencements over the last year and a half. But what has been so extraordinary to me was just how resilient, in a truly testing time, our students and faculty and staff proved themselves to be. Very rapid pivots were made by faculty for teaching, by staff for managing the program, and most importantly by students, who have continued to pour their energy and enthusiasm into their academics even under remarkably trying circumstances.

So, looking ahead: where is Human Biology headed and what challenges does it face? This was the question posed by Russ Fernald on the thirtieth anniversary of Human Biology, over twenty years ago. The founding of Human Biology was motivated by the need for knowledge about the complex relationships of humans with nature and with one another, exemplified by the dilemmas of population problems, climate change, and social policy in health and education. The program was built to train individuals in a multitude of disciplines to bring creative solutions to these complex human problems. Some of the problems of twenty years ago — indeed of fifty years ago — remain and new issues have emerged; thus, the work continues.

Over the past twenty years, amidst global financial crises and increasing disparities in wealth, societal problems such as homelessness, food insecurity, and poverty persist. Despite advancements in sustainable development, the environment continues to be under siege from the demands of continued population growth and consumption of resources. Global warming and climate change are unremitting, with now easily observable effects. In the last two decades, we have also seen a rise in humanitarian crises. From terrorism, war, and surges in refugees, to the increased visibility of police brutality and racial and ethnic tensions across the globe, the mission of the Program in Human Biology is more important now than ever.

An exponential rise in technology over the past two decades has brought us into a new digital



age with the launch of Apple's iPhones, the Google search engine, streaming services, and a multitude of alternative business communication options such as video conferencing, the latter of which we were entirely reliant on during the past one and a half years. Technological advancements have also revolutionized the medical field with the mapping of the human genome, and the discovery of new treatments and gene therapy technology. Human Biology's scope and style of instruction have broadened and adjusted with each of these new developments.

HumBio has evolved and must continue to evolve with the times in order to offer students an interdisciplinary education that will sustain them through an uncertain future. New courses and content must continually be developed and incorporated into the program to address breakthroughs and setbacks. Students' innate curiosity and their motivation to improve the world continue to inspire us and drive the program forward.

The Program's unwavering dynamism and success is attributable to the remarkable insights of the founders, the dedication and passion of the faculty, and the energy and ideas of our incredible students. Also fundamental to the program's success are the community itself and its grounding principles of respect, inclusion, and care for others. I see this in classes and get-togethers as students extend positivity and support to each other. I see this in our faculty and staff, who care deeply about our students' well-being and success and about each other. And I see this in our alumni, who continue to support one another and do meaningful and important work across a range of occupations and disciplines. We are all so fortunate to be a part of this community.

Fifty years ago, a group of visionary educators came together from all corners of the Stanford community to address an important question: how does one train students to think both deeply and flexibly about the complicated problems facing humanity? Their answer was the educational program that we all know as The Program in Human Biology. It remains to this day a truly unique and important program.

While we don't know what the future holds for our world, one thing is certain: our students leave Human Biology as innovative and critical thinkers. I am inspired by the many ways that our HumBio community is changing, growing, and making the world a better place.

— Lianne Kurina
September 2021, Stanford, CA

SOME MEASURES OF DISTINCTION

HUMAN BIOLOGY ENDOWED PROFESSORSHIPS

The Bing Director of the Program in Human Biology
(Established with a matching grant from the Ford Foundation)

Lianne Kurina, 2019 - Present
Paul Fisher, 2013 - 2019
Carol Boggs, 2008 - 2012

The Bing Professorship in Human Biology
(Established with a matching grant from the Ford Foundation)

Laurence Baker, 2019 - Present
William H. Durham, 1994 - 2019

The Reed-Hodgson Professorship in Human Biology
(Established with a matching grant from the Ford Foundation)

Roeland Nusse, 2018 - Present
Margaret Fuller, 2005 - Present
Daria Mochly-Rosen, 1997 - 2001

The Josephine Knotts Knowles Professorship in Human Biology
(Established with a matching grant from the Ford Foundation)

Anne Fernald, 1996 - 2019

The Benjamin Scott Crocker Professorship in Human Biology
(Established with a matching grant from the Ford Foundation)

Aliya Saperstein, 2019 - Present
Jeffrey Wine, 2009 - Present
Russell D. Fernald, 1996 - 2019

The Catherine R. Kennedy & Daniel L. Grossman Fellowship in
Human Biology

Laurence Baker, 2016 - 2019
Will Talbot, 2014 - Present
David Lyons, 2014 - Present
Joe Nation, 2014 - Present
Walter Scheidel, 2012 - Present
Larry Goulder, 2008 - 2014

The David and Lucile Packard Foundation Professorship in
Human Biology

Michael Frank, 2018 - Present
Arthur Wolf, 2001 - 2015

The Donald Kennedy Chair in the School of Humanities &
Sciences (awarded to a faculty member in Biological Sciences or Human
Biology. Established with matching funds from the William & Flora
Hewlett Foundation)

Judith Frydman, Biology 2017 - Present
Robert Simoni, Biology 2005 - 2017

The Lorry I. Lokey/Business Wire Professorship in Human Biology

H. Craig Heller, 1995 - Present

The Lorry I. Lokey Visiting Scholar in Human Biology

Michael James Salinger, Spring 2011 - 2012
Donald Light, Fall 2010 - 2011; Fall 2011 - 2012
Robert Lickliter, Professor at FIU, Winter 2009 - 2010
Daniel Levitin, Professor at McGill University, Winter 2008 - 2009
Nathan Wolfe, Global Viral Forecasting Initiative, Fall 2008 - 2009;
Spring 2009 - 2010
James Boyd, Resources for the Future, 2007 - 2008

HUMAN BIOLOGY PROGRAM AWARDS

Joshua Lederberg Award for Academic Excellence in Human Biology

2001/02 Anna Liess, Cindy Lin, Amy Tso
2002/03 Monique Barakat, Megan Corty, Leo Lin, Arielle Reinstein
2003/04 Manisha Bahl, Margaret Hsu, Ambili Ramachandran
2004/05 Danielle Chammas, Hannah Leslie, Melisa Wong

2005/06 David Berg, Tanya Haj-Hassan, Joseph Sanford
2006/07 Lindsay Borg, Eleni Greenwood, Amelia Hausauer, Melina
Platas, Michelle Shepard
2007/08 Misha Amoils, Nila Bala, Rachel Buehler, Carrie Cai, Emily
Campbell, Hannah Lesk, William Love Anderegg, Anne Kalt
2008/09 Faren Clum, Lauren Finzer, Juliet Fraser, Fiona Gispén, Grace
Hunter, Lauren Kelley-Chew, Darcy White, Brandon Williams
2009/10 Emily Dansereau, Rayden Llano, Kristin Hirabayashi,
Talayah Ghezelayagh, Joanna Tu
2010/11 Autumn Albers, Serra Favila, Anna Grummon, Leander Love
Anderegg, Jocelyn Ko
2011/12 Sonja Swenson
2012/13 Anne Smartt, Madison Ashley Crocker, Katherine J. Wu
2013/14 Jane Evered, Sabrina Layne, Emily Liang, Ali Maggioncalda,
Trevor Mooney, Michelle Paik
2014/15 Sarah Case, Charlotte Geaghan-Breiner, Rebecca Gold, Ethan
Katznelson, Sophie Koontz, Tatiana Rosenblatt, Lily Steyer,
Emily Witt, Garseng Wong
2015/16 Grace Hultquist, Jonas Kemp, Cayla Pettinato, Hadley Reid,
Laurie Rumker, Zachary Templeton, Anna Wohl, Vivian Vu
2016/17 Raga Ayyagari, Fiona Baumer, Melissa Eidman, Ali Murat Gali,
David Ly, Kate Nelson, Siyou Song
2017/18 Isabelle Crary, Julia Doody, Lauren Kwa, Maya Lorey,
Kristin McIntire, Amy Xu
2018/19 Andrew Bueno, Michelle Brouckman, Eliana Greenberg,
Francesca Lupia, Samantha Starkey
2019/20 Clarissa Aguirre, Nicole Apana, Brandon Bergsneider,
Léa Bourgade, Abby Chen, Alexandra Crew, Catherine Gao,
Shravya Gurrapu, Maimi Higuchi, Alessandra Marcone,
Emily Miller, Cameron Nosrat, Ashwin Reddy, Kelsey Rich,
Shannon Richardson, Nicole Taylor, Walter Sobba,
Rachel Vaughan
2020/21 Callum Bolger, Justine Kaneda, Max Moss, Grace Rabinowitz,
Robyn Radecki, Julia Rathmann-Bloch, Angeline Truong,
Emma Tsai, Evelyn Zhang

Colin S. Pittendrigh Award for Excellence in Teaching Human Biology

2001/02 Katherine Bonzon, Steven Gelber
2002/03 Robyn Lamar, Donald Matsuda, Candace Pau,
Kimberly Woodhouse, Alan Teo
2003/04 Darcy Wooten
2004/05 Susan Canny, Christina Giannikas, Sundeep Bhat
2005/06 Beth Brannan, Leila Ben-Youssef, Julia Carnivale, Lucy Horton
2006/07 Joe Sanford
2007/08 Lauren Rimoin
2008/09 Will Peterson
2009/10 Peng Zhang
2010/11 Kathleen O'Conner, Lauren Wood
2011/12 Ariel Marcy
2012/13 Autumn Albers
2013/14 Clarice Nguyen, Jordan Williams
2014/15 Sophie Koontz

Barbara & Sandy Dornbusch Award for Excellence in Research Related to
Families & Children

2001/02 Cindy Lin
2002/03 Carolyn Snell
2003/04 Sundeep Bhat
2004/05 Tiffany Early, Ana Luz Portillo
2005/06 Tanya Haj-Hassan
2006/07 Kopal Kulkarni
2007/08 Kathryn Kliff
2008/09 Jessie Liu
2009/10 Jessica Jones, Brindha Saravanabavanandhan
2010/11 Nicole Bitler, Lucy Martinez
2011/12 Julia Brownell, Stacey Christiansen
2012/13 Stephanie Muscat, Kaia Simmons
2013/14 Laura Soriano
2014/15 Stephanie Navarro
2015/16 Joelle Williams

2016/17 Tamara Mekler
 2017/18 Elen Mendoza
 2018/19 Francesca Lupia, Megan Parker
 2019/20 Courtney Gao
 2020/21 Sophia Gamboa, Alexess Sosa

Kirsten Frohnmayer Research Prize for Juniors in Human Biology

1999/00 Jennifer Dorth
 2000/01 Abigail Shaw
 2001/02 Tess Bridgeman
 2002/03 Jonathan Olsen, Maya Adam
 2003/04 Julia Carnevale, Sarah Schulman
 2004/05 Shara Cohn, Benjamin Fohner
 2005/06 Amelia Hausauer
 2006/07 Abby Burns, Jessica Zhang
 2007/08 Rebecca Briggs, Victor Cruz, Lauren Smith
 2008/09 Cooper Lloyd, Josh Wong
 2009/10 Autumn Albers, Lucinda Lai, Lucy Martinez
 2010/11 Rachel Kelley, Lauren Platt
 2011/12 Allison Johnson, Elise Geithner, Margaret Hayden
 2012/13 Anna McConnell, Jessie Holtzman
 2013/14 Laurie Rumker, Emily Witt
 2014/15 Megan Alexander, Zachary Templeton, Joelle Williams
 2015/16 Aheli Chattopadhyay, Grace Stayner
 2016/17 Isabelle Crary, Sandro Luna
 2017/18 Claudia Heymach, Lucia Johnson
 2018/19 Courtney Gao, Alessandra Marcone, Bobby Radecki
 2019/20 Avi Gurion Kaye, Caroline Pecos-Duarte
 2020/21 Mohammad Gumma, Sammy Pickell

Mary and Jacquelyn Edmonds Prize for Outstanding Juniors in Human Biology

2001/02 Anna Minta, Zachary Pogue
 2002/03 Monica Lyle, Elsie Gyang
 2003/04 Meklit Workneh
 2004/05 Tracie Bryant, Amanda Johnson
 2005/06 Rynne Brown, Matthew Niles
 2006/07 Mariel Bailey
 2007/08 Nkemjika Ugonabo
 2008/09 Janet Okogbaa
 2009/10 Morgan Baskett
 2010/11 Chase Richard
 2011/12 Tiana Moore, Ezekiel Richardson
 2012/13 Danielle Bromberg, Talon Clayton
 2013/14 Victoria Kalumbi, Aaron Williams
 2014/15 Jemima Oso
 2015/16 Jordan Noble
 2016/17 Akua Nyarko-Odoom, Kamina Wilkerson
 2017/18 Vanessa Sims
 2018/19 Ginger Gramson
 2019/20 Ashley Riley
 2020/21 Bryanna Godfrey, Mohammad Gumma

Albert H. Hastorf Award for Outstanding Service to Human Biology

2001/02 Silvia Chang, Anna West
 2002/03 Zoe Chafe, Michael Johnson
 2003/04 Megan Clark, Larry Spackman
 2004/05 Becky De Boer
 2005/06 Kimberly Komatsubara
 2006/07 Sara Kaiser
 2007/08 Nila Bala, Meera Subash
 2008/09 Joyce Ho, Pin-Yi Ko
 2009/10 Emily Dansereau, Eleanor Foote, Jolene Kokroko, Brindha Saravanabavanandhan, Dane Saksa, Josh Wong
 2010/11 Anne Friedlander
 2011/12 Daniel Bui, Steven Crane, Caroline Crocker Smith, Melanie Hom, Lauren Platt, Jenna Wixon-Genack
 2012/13 Barb Hunt
 2013/14 Peter Kao
 2014/15 Ruth Marks

2015/16 Torsten Rotto
 2016/17 Kerry Wang
 2017/18 Devon Zander
 2018/19 Kat Klass, Matt Anderson
 2019/20 Vincent Busque, Alessandra Marcone, Walter Sobba
 2020/21 Dr. Annette Salmeen

Merton & Audrey Bernfield Director's Award for Exceptional Contributions to the Program in Human Biology

1999/00 Don Barr, Linda Barghi
 2001/02 Robyn Duby
 2002/03 Armin Rosencranz
 2003/04 Shirley Feldman, Lia Cacciari
 2004/05 Phillip Lee
 2005/06 Craig Heller
 2006/07 David Lyons
 2007/08 Anne Firth Murray
 2008/09 Jennifer Wolf
 2009/10 Anne Fernald, Katherine Preston
 2010/11 Catherine Heaney
 2011/12 Carlos Seligo
 2012/13 Annette Salmeen
 2013/14 Shay Brawn
 2014/15 Barb Hunt
 2015/16 Tanvi Jayaraman
 2016/17 Vanessa Ochavillo
 2017/18 Wes Annan (awarded as a junior)
 2018/19 Kaitlin Schroeder
 2019/20 Margaret Bruck, Grace Romer, Micah Trautwein
 2020/21 Julia Rathmann-Bloch, Sofia Schlozman

STANFORD UNIVERSITY TEACHING AWARDS

The Lloyd W. Dinkelspiel Award for Distinctive Contributions to Undergraduate Education

2001/02 Ashwini Sagar
 2002/03 Don Barr
 2003/04 Elizabeth Kwo
 2006/07 Donna Bouley
 2007/08 Shirley Feldman
 2009/10 Jennifer Wolf, Alisha Tolani, Karen Warner
 2011/12 Carol Boggs
 2018/19 Chris LeBoa

Richard Lyman Award for Volunteer Service at Stanford

2004 Bill Durham

ASSU Award for Excellence in Teaching

2004 Stanley Wanat
 2005 Armin Rosencranz
 2006 Larry Zaroff
 2010 Don Barr

Humanities & Sciences Dean's Award for Lifetime Achievements in Teaching

2012/13 Don Kennedy
 2017/18 Bill Durham

Allan V. Cox Medal for Fostering Undergraduate Research

2011/12 Garry Gold

Henry J. Kaiser Family Foundation Awards for Preclinical Teaching

2003 Robert Siegel
 2010 Ellen Porzig
 2019 Robert Siegel

Walter J. Gores Award for Excellence in Teaching

2011 Robert Siegel

SOME MEASURES OF DISTINCTION

NATIONAL AND INTERNATIONAL STUDENT AWARDS

Rhodes Scholarship

2004 Tess Bridgeman (*03)
2005 Sarah Schulman
2006 Tanya Ali Haj-Hassan
2013 Margaret Hayden
2013 Rachel Kolb (*12)
2015 Emily Witt

Marshall Scholarship

2010 Annie Kalt (*08)
2012 Rayden Llano
2020 Mustafa Fattah

IIE Fulbright Scholarship

2001/02 Katrina Abuabara, Sophia Liu, Rohan Radhakrishna
2002/03 Filamer Kabigting
2003/04 Liz Kwo
2004/05 Kenny Gundle
2005/06 Benjamin Fohner, Jennifer Miller
2006/07 Fannie Chen
2007/08 Liberty Reforma
2008/09 Jonathan Dunlap, Alexandra Filippova, Deshka Foster, Rebecca Grossman-Kahn, Bria Long, Sara Parke, Jared Sun
2009/10 Lauren Finzer, Lily Kornbluth, Jessie Liu, Nimi Mastey,
2009/10 Tom McFadden, Sarah Mummah, Andrew Plan
2010/11 Daniel Crichton, Lucinda Lai, Carmen Stellar
2011/12 Abena Ofosua Nyamedor Bruce, Alisha Tolani
2012/13 Surabhi Nirkhe, Stephanie Topacio Long
2013/14 Jessie Holtzman, Katherine Lee, Maia Mosse
2014/15 Alison Buchsbaum, Jean Guo, James Huynh
2015/16 Grace Klaris, Tanvi Jayaraman, Vy Tran
2016/17 Vivian Ho, Emily Kelly
2017/18 Jason Li
2018/19 Samantha Kargilis, Francesca Lupia
2019/20 Brandon Bergsneider, Emily Luo, Christopher LeBoa
2020/21 Robyn Radecki

Harry H. Truman Scholarship

2001/02 Tess Bridgeman
2007/08 Lauren Finzer
2014/15 Alfred Delena

Gates Cambridge Scholarship

2010 Allison Rhines
2012 Lucinda Lai (*11)
2012 Sarah Mummah (*10)
2013 Jerry Lee (*09)

Knight-Hennessy Scholarship

2018 Jason Khoo (*16)
2019 Melissa Eidman (*17)
2020 Camila Strassle (*18)

STANFORD UNIVERSITY STUDENT AWARDS

Deans' Awards for Academic Achievement

2001/02 Tess Bridgeman, Abigail Shaw
2003/04 Maya Adam, Vinita Kailasanath
2004/05 Vicki Parikh
2006/07 Michelle Shepard, Michael Susman
2008/09 Jonathan Dorsey, Lauren Smith
2009/10 Nicholas Josten
2010/11 Autumn Albers, Leander Love Anderegg, Owen Marcic
2011/12 Mikaela Kelly, Chase Richard
2012/13 Rachel Kelley
2013/14 Emily Liang, Jessie Holtzman
2015/16 Megan Alexander, Ethan Katznelson, Lauren Wedekind,

2015/16 Lina Vadlamani
2017/18 Kristin McIntire, Maya Lorey
2018/19 Sofia Ali, Claudia Heymach, Brooke Vittimberga
2019/20 Léa Bourgade, Shravya Gurrapu

James W. Lyons Award for Service

2003/04 Chitua Alozie, Elizabeth Kwo, Jonathan Olsen
2006/07 Joseph Lopez, Tammy Phan, Jillian Wong
2007/08 Fatima Hassan, Amy Padilla
2011/12 Steven Crane
2012/13 Elise Geithner
2013/14 Timothy Huang
2014/15 Christian Leal, Gabriella Momah, Alfred Delena
2015/16 Lauren Wedekind
2016/17 Johnny Xu
2018/19 Tami Alade, Catherine Sanchez, Grayson Throckmorton

John Gardner Public Service Fellowship (Haas)

2002/03 Tess Bridgeman, Joanna Levitt
2004/05 Rita Nguyen, Dung My Le
2005/06 Regan Johnson, Alejandro Rivas, Brian Bergmark
2006/07 Elizabeth Kersten
2007/08 Margaret Sher-Ping Chen
2009/10 Pooja Bakhai
2012/13 Ezekiel Richardson
2016/17 Melissa Eidman, Ali Gali
2017/18 Brian Kaplun

Firestone Medal for Excellence in Undergraduate Honors Research

2001/02 Ian Ehrenreich, Suzy Fong, Yoona Kim, Elizabeth Nguyen
2002/03 Teresa Au, Elaine Chao, Nathan Doty, Leo Lin, Allison Widman
2003/04 Kara Bischoff, Yohko Murakami
2004/05 Iman Ahmad, Lucy Horton, Rita Nguyen, Victoria Parikh
2005/06 Stephanie Mika, Felipe Perez, Krista Rappahahn
2006/07 Amelia Hausauer, Michael Susman
2007/08 William Love Anderegg, Rebecca Grossman-Kahn, Deshka Foster, Stacie Vilendrer
2008/09 Bria Long, Lauren Smith, Cheuk Tam
2009/10 Evan Chen, Allison Rhines, Lauren Shapiro, Lauren Wood
2010/11 Ron Pomper, Leander Love Anderegg*, Elisa Zhang
2011/12 Vanessa Dang*, Amy Showen, Jacqueline To
2012/13 Elise Geithner*, Michael Diaz, Stephen Matzat
2013/14 Louise Lu, Emily Liang, Anna Wilson
2014/15 Charlotte Geaghan-Breiner, Laurie Rumker, Emily Witt
2015/16 Jordyn Irwin, Emily Taing
2016/17 Maria Castro, Melissa Eidman
2017/18 Kristin McIntire, Amy Xu, Joriene Mercado (Education), Madeleine Weiss (Theater)
2018/19 Joanna Langner, Catherine Sanchez
2019/20 Laura Jonsson, Cameron Nosrat, Walter Sobba*
2020/21 Avi Gurion Kaye, Julia Rathmann-Bloch

* Also recipients of the David M. Kennedy Honors Thesis Prize

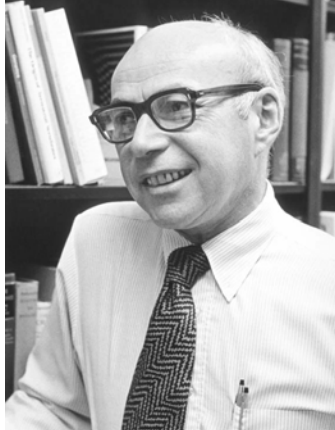
Tom Ford Fellowship in Philanthropy (Haas)

2001/02 Sufia Dadabhai
2004/05 Archana Pasupuleti
2005/06 Rachel Niederman
2006/07 Linh Tran
2007/08 Lauren Finzer
2008/09 Joy Zhang
2009/10 Liesl Spitz, John Thomas
2010/11 Isabell Wijangco
2012/13 Amy Chen
2013/14 Alex Martinez
2016/17 Priscilla Acuna Mena
2017/18 Maya Lorey
2018/19 Isabela Bumanlag
2020/21 John Okhiulu

Our Founders



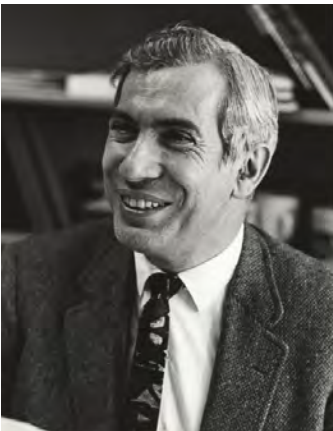
Colin Pittendrigh
1918 - 1996



Norman Kretzmer
1923 - 1995



Joshua Lederberg
1925 - 2008



Sanford Dornbusch
1926 - 2016



Albert Hastorf
1921 - 2011



David Hamburg
1925 - 2019



Donald Kennedy
1931 - 2020



Paul Ehrlich
1932 -

*Teachers affect eternity;
they can never tell where
their influence stops.*



Jessica Frydenberg, researcher/writer/editor/designer; Katherine Preston, writer/editor; Linda Barghi, writer/editor; Carlos Seligo, designer; Lianne Kurina, writer/editor.

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*The success of our graduates
speaks volumes about HumBio.*

Thank you, alumni.

HUMAN BIOLOGY CORE COURSES AND FACULTY COORDINATORS (*Continued from inside front cover*)

2012/13

- 2A Genetics, Evolution, & Ecology (Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse, Dale Kaiser, Matthew Scott, William Talbot)
- 3B Behavior, Health, & Development (Anne Fernald, David Lyons)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Lawrence Goulder)

2013/14

- 2A Genetics, Evolution, & Ecology (Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, William Talbot, Roeland Nusse)
- 3B Behavior, Health, & Development (Anne Fernald, David Lyons)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Lawrence Goulder)

2014/15

- 2A Genetics, Evolution, & Ecology (Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, William Talbot, Roeland Nusse)
- 3B Behavior, Health, & Development (Anne Fernald, David Lyons)
- 4A The Human Organism (Paul Fisher, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)

2015/16

- 2A Genetics, Evolution, & Ecology (Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Behavior, Health, & Development (Anne Fernald, David Lyons)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)

2016/17

- 2A Genetics, Evolution, & Ecology (Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Behavior, Health, & Development (Anne Fernald, David Lyons)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)

2017/18

- 2A Genetics, Evolution, & Ecology (Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Behavior, Health, & Development (Anne Fernald, David Lyons)
- 4A The Human Organism (Russell Fernald, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)

2018/19

- 2A Genetics, Evolution, & Ecology (Julie Baker, Bill Durham, Katherine Preston, William Talbot)
- 2B Culture, Evolution, & Society (Richard Klein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Behavior, Health, & Development (Michael Frank, David Lyons)
- 4A The Human Organism (Paul Fisher, Craig Heller)
- 4B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)

2019/20

- 2A Genetics, Evolution, & Ecology (Julie Baker, Katherine Preston, Gavin Sherlock, William Talbot)
- 2B Culture, Evolution, & Society (Katherine Preston, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)
- 4A The Human Organism (Paul Fisher, Craig Heller)
- 4B Behavior, Health, & Development (Michael Frank, David Lyons)

2020/21

- 2A Genetics, Evolution, & Ecology (Julie Baker, Katherine Preston, Gavin Sherlock, William Talbot)
- 2B Culture, Evolution, & Society (Katherine Preston, Aliya Saperstein, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)
- 4A The Human Organism (Paul Fisher, Craig Heller)
- 4B Behavior, Health, & Development (Michael Frank, David Lyons)

2021/22

- 2A Genetics, Evolution, & Ecology (Julie Baker, Gavin Sherlock, William Talbot)
- 2B Culture, Evolution, & Society (Katherine Preston, Walter Scheidel)
- 3A Cell & Developmental Biology (Margaret Fuller, Roeland Nusse)
- 3B Environmental & Health Policy Analysis (Laurence Baker, Joe Nation)
- 4A The Human Organism (Paul Fisher, Craig Heller)
- 4B Behavior, Health, & Development (Michael Frank, David Lyons)

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450 Jane Stanford Way, Building 20, Stanford, CA 94305-2160
<http://www.humanbiology.stanford.edu>