Research * Service * Academics

Three students awarded for giving their all

Juniors Megan Alexander, Zachary Templeton, and Joelle Williams earned the Kirsten Frohnmayer Prize for displaying Kirsten’s passion for the human condition.

Like Kirsten Frohnmayer (HB ’95), Megan, Zach, and Jo have excelled academically and have a strong record of public service. In addition, they show promise to perform original research.

Kirsten died just two years after graduating from Human Biology at the age of 24 from Fanconi Anemia. This annual prize was endowed to inspire Human Biologists with Kirsten’s idealism and her passion to improve the human condition.

Each year Human Biology discerns who among an outstanding undergraduate population has shown uncommon accomplishment and dedication to improving the lives of others.

Purposeful, determined, and generous are three common descriptors for Megan, Zach, and Jo. While they share similar personal characteristics, their academic interests span Human Biology’s broad intellectual range. This year’s winning trio are bright young stars who are lighting up the research pathways of elder health, breast cancer cure, and foster care. Enjoy learning about their research and aspirations on page two.

That the Kirsten Frohnmayer Research Prize exists is another reason for me to be very proud of the Stanford Human Biology Program. I love that the emphasis is not limited to academic achievement. Putting our knowledge to use to help others is, to me, the whole point of working hard academically. I couldn’t be happier that the causes I care so much about are recognized as important by others too. Megan

INSIDE THIS ISSUE

Frohnmayer Prize.................................1-3
It takes a village: Core Faculty.................4-6
Student News ......................................7
Alumni News........................................8-9
Bookshelf..........................................10
Courses and Faculty News....................11-12
Arthur Wolf........................................13
HumBio’s 45th! & other goodies..........14

DIRECTOR’S MESSAGE

“It’s not the 80’s anymore.”

Like so many of you, I am an alumnus of Human Biology from the early days, the class of ‘84 to be precise. HumBio is now almost 45 years out from its first graduating class. That milestone coincides with Stanford’s 125th anniversary (page 14). We will announce soon a very special event to commemorate that occasion—stay tuned.

After almost half of a century, the Human Biology approach is more important and vibrant than ever. But, like the rest of the planet, we need to be both “sustainable” and “innovative” to meet the needs of the 21st century. The above quote has been a favorite aphorism of mine in Human Biology, now as I enter my fourth year with the privilege of serving as Director.

Our students are more impressive than ever. They arrive on the Farm more sophisticated educationally than so many of us were. HumBio has thus adapted and evolved the past three years, embracing changes in the educational landscape at Stanford, while retaining values “core” (pages 4-6) to our HumBio mission. How? Our three “C’s.”

The HumBio Curriculum Committee has launched our Course Review and Renewal to examine every one of our courses over the next three to four years. We are reinforcing our curriculum content and skills in each one of our classes.

(continued on page 3)
**FROHNMAEYER PRIZE**

**Megan’s** research focus is on exercise programs for clinically underserved and homebound older adults. She designed EmPower Me, an innovative, self-administered exercise program that was integrated into The Health Trust’s Meals on Wheels program. Megan’s data will document the efficacy of EmPower Me, offer guidelines for motivating frail older adults, and identify ways to incorporate physical activity into the programs serving them. Megan’s goal is to see if this program can be appealing and maintainable. Her mentor, Dr. Carol Wingo, Associate Professor of Medicine, Emerita, says that virtually no research exists on improving mobility in this population, and predicts that Megan’s data has a strong potential to be ground breaking.

**What are some of the highlights or challenges you have encountered during your research?**

**Megan**: “The hardest part has been learning to adapt when things do not go as planned. The nature of working with a community partner is that I cannot always control how long it takes to do something. However, working with a community partner also means that each progression is achieved through amazing teamwork. I have gained an immense appreciation for what goes into running a non-profit health-oriented organization.”

**What are your future aspirations?**

**Megan**: “I am incredibly concerned that a vast majority of chronic diseases we are suffering from in this day and age are preventable! There are all sorts of factors that conspire to make this the case, so the solution has to be completely interdisciplinary. I want to make my contribution to eradicating preventable chronic diseases as a physician, and I can’t wait to empower others to take their health into their own hands.”

**Zach’s** research efforts on metastatic breast cancer with Dr. Bonnie King, Instructor of Pediatrics, Neonatology, hit a high mark early, resulting in two publications as first author. His first publication is in the Journal of Visualized Experiments (JoVE), and his second is in Neoplasia. In the fall of sophomore year Zach started studying breast cancer migration to bone tissue with the goal of understanding the breast cell and bone tissue properties that lead to greater metastatic disease. Dr. King predicts that Zach will have a substantial positive impact on the world because of his fierce work ethic, integrity, high ideals, and motivation to master his work. For example, even after many hours at the bench, with dinner long overdue, Zach would take the time to write up his experiments. Zach’s research was funded by Human Biology Research Exploration (HBREX), a program that supports summer research for HumBio’s rising juniors.

**Who and what have inspired you?**

**Zach**: “My inspiration and support come from my family, friends, and research mentor, Dr. King. I am also motivated by the passion of my classmates, both inside and outside of Human Biology, to work on social problems and improve the health and lives of those around us. My mother and brother are nurses who have shown me the value of working directly with patients, and my father is an economics professor, so my Area of Concentration (AC) in Health Policy and Health Economics is a fusion of my family’s occupations. My time working as a summer intern at the mobile health startup CareMessage, and as a consultant with the Stanford Healthcare Consulting Group have also fueled my interest.”

**What are your future aspirations?**

**Zach**: “I want to be able to work part-time as a physician, and part-time in health tech or health care management, so I would be working with patients directly in the clinic, while improving the health care system.”

**Joelle (Jo)** is devoted to learning everything she can about the experiences of former foster care youth in California. She completed phase one of her original research project during the summer following her sophomore year by working with the San Mateo County Health Department. She has already submitted a valuable report to this department. Her second phase of research expands to a larger sample area in Los Angeles County. Her mentor, Don Barr, Professor (Teaching) of Pediatrics, noted that as a former foster youth herself, Jo is deeply empathetic, courageous, and brings her full strength of character and intellect to her deep service and research commitments.

**What are some of the highlights or challenges you have encountered during your research?**

**Jo**: “After a summer of setbacks, my research is finally on the move! Because my participant base is former foster youth who are in extended foster care, I had to get approval to do my research [interviews] through the juvenile court (continued on page 3)"
system. Unfortunately, they did not give me approval until the end of summer. This certainly put a damper on my research. Since coming back to Stanford, I have been re-charged. I’m part of the Haas Center Public Service Scholars Program [cohort of 10] public service honors thesis writers at the Haas Center, and I wouldn’t trade them for the world.”

Sometimes doing research can be discouraging and doesn’t always work out your way, but knowing that I am continuing Kirsten’s legacy gives me hope. Jo

What are your future aspirations?

Jo: “As I look at the ever-encroaching horizon of “Life After Stanford,” I am not quite sure where I will be. My current plan is to take a gap year, apply to a Master’s in Public Health, and afterwards go into a PhD. But who knows, maybe that will change, we’ll see where life takes me. I do know though, that whatever I do, it will be centered around the betterment of the foster care system, and the well-being of its children.”

Kirsten Frohnmayer Research Prize for Juniors 2000-2015

- Megan Alexander 2015
- Zachary Templeton 2015
- Joelle Williams 2015
- Laurie Rumker 2014
- Emily Witt 2014
- Jessie Holtzman 2013
- Anna McConnell 2013
- Elise Geithner 2012
- Margaret Hayden 2012
- Allie Johnson 2012
- Rachel Kelley 2011
- Lauren Platt 2011
- Autumn Albers 2010
- Lucinda Lai 2010
- Lucia Martinez 2010
- Cooper Lloyd 2009
- Josh Wong 2009
- Rebecca Briggs 2008
- Victor Cruz 2008
- Lauren Smith 2008
- Abby Burns 2007
- Jessica Zhang 2007
- Amelia Hausauer 2006
- Shara Cohn 2005
- Benjamin Fohner 2005
- Julia Carnevale 2004
- Sarah Schulman 2004
- Maya Adam 2003
- Jonathan Olsen 2003
- Theresa Bridgeman 2002
- Abigail Shaw 2001
- Jennifer Dorth 2000

Now every HumBio major will not only take on unique biological and social sciences interdisciplinary study of the human condition, but also acquire in all our classes those Capacities (i.e., skills) requisite to carrying out their Human Biology mission long after they graduate: communication, data analysis, and scientific literacy. Later this year we will also implement junior and senior in-depth Capstone experiences to augment student scholarship. We have finally moved to an on-line declaration system (page 14). We are also discussing ways we might reinvent the HumBio B.A. degree with a B.S. option. We even have a new logo (below) that honors the tradition of our old logo (right).

HumBio now has over 7,000 alumni. So many of you have told me how much HumBio has influenced your life. Me too. We want to preserve that HumBio approach and impact for decades to come. Embrace both the past and the future. It’s not the 80’s anymore. To good things ahead for you, HumBio, and our future students. If you have thoughts about HumBio and its future, please email me at pfisher@stanford.edu.
THE HUMBIO CORE: It takes a village

The HumBio village “elders” are academically diverse, community-minded, and committed to expanding their students’ knowledge base, while helping them to connect the interdisciplinary dots of what it means to be human. An intellectual alchemy takes place in the Core over the course of the year. Enjoy re-acquainting yourself with long time greats, and meeting the next generation in order of their appearance from fall through spring.

FALL CORE FACULTY

2A: Genetics, Evolution, and Ecology

Bill Durham, Bing Professor in Human Biology and Senior Fellow at the Woods Institute for the Environment, uses lactose tolerance as a model for exploring the relationship between genes and culture in human populations. His module on milk reflects Human Biology’s uniquely interdisciplinary approach to human beings. Durham also introduces a broad range of topics in evolutionary theory, including natural selection, allometry, speciation, phylogeny, and population genetics, all with human examples.

Human population growth is one of the pressing issues of our time and Associate Director and Lecturer in Human Biology, Katherine Preston, develops this topic using fundamental ecological models. Her lectures cover ecology, including biodiversity and species interactions, predation and mutualism, ecologies of parasites, and of human microbiome communities, genetics, Mendel’s law, mitosis and meiosis. Extra credit: read her most recent blog post, putting a botanical spin on topics from the Core.

Will Talbot, Professor of Developmental Biology and Kennedy-Grossman Fellow in Human Biology, weaves together lectures on DNA structure and packaging, replication and repair, mobile genetic elements and viruses. Talbot also explores what it means to be human from the molecular and genetic perspective.

Curious to see how the Core has evolved from its inception through 2001? Core titles are listed on the inside covers of HumBio’s 30th History book.

2B: Culture, Evolution, and Society

Richard Klein, Anne T. and Robert M. Bass Professor in the School of Humanities and Sciences, and Professor of Anthropology and Biology, uses archeological evidence to dig into the evolution of human origins, from bipedal apes to Homo egaster. He covers the life and times, and fate of Neanderthals and Cro Magnons, and finishes the quarter at the origins of agriculture and civilization.

Walter Scheidel, Dickason Professor in the Humanities, Professor of Classics and History and Kennedy-Grossman Fellow in Human Biology, introduces students to society as a complex organism. His lectures range from the origins, nature, and evolution of state, to environment and social development, to population dynamics, and the evolution of resource inequality. Additional topics covered are disease, infanticide, monogamy, polygamy, and close inbreeding. Extra credit: delve into Scheidel’s recent book, State Power in Ancient China and Rome.
THE HUMBIO CORE: It takes a village

3A: Cell and Developmental Biology

Reed-Hodgson Professor in Human Biology and Professor of Genetics and of Obstetrics/Gynecology (Reproductive & Stem Cell Biology), Margaret (Minx) Fuller, introduces cells as a unit of life, delves into energy and enzymes, electron transport chain ATP, and the cytoskeleton. Over the course of her lectures, her students learn the answers to these questions:
Q1) How does a cell decide what to do (from embryo to organism)?
A1) A core student can answer this for you during spring break.
Q2) Which comes first... the chicken or the egg?
A2) THE EGG, of course.

Virginia and Daniel K. Ludwig Professor in Cancer Research, Roel Nusse, takes students on a microbus tour of cell cycles, cell signaling, and an explanation of how cells become and stay different. He discusses stem cells, embryonic stem cells, and explores cancer from a cellular perspective. Students also get a healthy dose of immunology lectures in winter quarter.

Professor of Developmental Biology and Kennedy-Grossman Fellow in Human Biology, Will Talbot, returns in winter to illuminate functions of protein structure, regeneration of ATP by glycolysis, oxidation of carbohydrates and lipids in air. Talbot teaches how vertebrates develop, how cells remember what they are, and the epigenetics and long term control of cell fate.

3B: Behavior, Health, and Development

Professor (Research) of Psychiatry and Behavioral Sciences (General Psychiatry & Psychology-Adult), and Kennedy-Grossman Fellow in Human Biology, David Lyons, treats students to insights on brain and behavior, its structure and function, epigenetics and nutrition, sex differences in brain and behavior, adult stem cells in mental health, stress and the immune system, PTSD, cognitive reserve and brain aging, adolescent risk taking, and diagnosing resilience. And because timing is everything, before finals Lyons instructs students on how NOT to let fear and stress get under their skin.

Josephine Knotts Knowles Professor of Human Biology, and Associate Professor of Psychology, Anne Fernald, presents evolutionary data from behavioral studies, and exposes students to critical periods in development. Socioeconomic status experience and language development are brought to the fore where students learn about lactation, why early language experience is crucial, how politics can influence the scientific debate, and the devastating effects of Fetal Alcohol Syndrome.

Social Sciences Research Associate in Psychology, Virginia Marchman, provides a wonderful series of lectures on cognitive, social and language development.
The Program in Human Biology  I  Stanford University

THE HUMBIO CORE: It takes a village

4A: The Human Organism

It is all about the brain for Benjamin Scott Crocker Professor in Human Biology, and Professor of Biology, Russ Fernald. He lectures on neuron membrane and resting potential, neuron generation and conduction of action potentials, synapses, coma and brain death, balancing the brain, seizures and intellectual disability, how the brain changes from motor, learning and memory perspectives, and much more.

4B: Environmental and Health Policy Analysis

Laurence Baker and Joe Nation kick off the spring quarter together with an explanation of what public policy is and the elements of policy analysis. From there, Professor of the Practice in Public Policy and Kennedy-Grossman Fellow in Human Biology, Nation covers a groundsweel of environmental policy, while Professor of Health Research and Policy, Baker delivers a full slate of health policy lectures.

Hum Bio Core time scales

2A/2B  Millions/thousands of years  (Evolution)

3A/3B  Decades/Lifetimes  (Development)

4A/4B  Days/years

Hum Bio Core size scales

4B: Environmental and health policy analysis

Baker’s lectures span socioeconomic status, health and health policy, the basic structure of health care systems, health care spending and efficiency, health care disparities, information and market power, asymmetries and agency, mandates, exchanges and health insurance.
STUDENT NEWS

Three Awarded Firestone Medals for Excellence in Undergraduate Research

Stanford’s top 10 percent of completed undergraduate theses are awarded the Firestone medal each year. Congratulations to our superstar researchers!

Charlotte Geaghan-Breiner researched “the Role of Prostaglandin F2α Biosynthesis in Regulating the Female Reproductive Axis,” and was advised by Professor Russell Fernald and postdoctoral scholar Scott Juntti, Department of Biology.

Laurie Rumker’s research project, “Before and After the Flood: Stability and Resilience of the Human Gut Microbiota,” was advised by David Relman, professor of medicine; Stanley Falkow, professor emeritus of microbiology and immunology; and Les Dethlefsen, research associate in microbiology and immunology.

Emily Witt researched “Vitamin D Modulates Inflammatory and Metabolic Gene Expression in Multiple Sclerosis,” and was advised by Professor Lawrence Steinman and Assistant Professor Keith Van Haren, Department of Neurology, and Allan Reiss, professor of psychiatry and behavioral sciences.

Three admitted to the Fulbright U.S. Scholars Program - Congratulations!

Alison Buchsbaum (HB ’15) will teach English in Germany and conduct a comparative research project looking at the advantages and disadvantages of the German three-school system and vocational training program versus the U.S. system.

Jean Guo (HB ’13) will identify and study the role that medical interpreter services play in health care service delivery in France, where there is a growing demand for medical interpreter services due to communication challenges.

James Huynh (HB ’15) will teach English in Vietnam to students in a high school setting and will host an after school English club for local villagers.

The Lion’s share of the James W. Lyons Award for Service goes to HumBio students!

Named after the former dean of student life, this award recognizes students for service contributions that are above and beyond the normal level of dedication. Join Human Biology in congratulating HumBio’s giving trio.

Alfred Delena (HB ’16) was awarded for his courage, creativity, passion, and uncompromising commitment to improving the lives of fellow students by modeling resilience, gratitude, compassion, and a purposeful life. Alfred served as a leader with the Stanford Pre-Education Society developing a formal mentorship process for meaningful connection between undergrad and grad students in the Stanford Teacher Education Program. Alfred has represented the Native community through his enthusiastic engagement with cultural programming, including serving as a program assistant with NACC, Stanford Powwow, and by sharing his personal story through the NSO Faces of Community production.

Christian Leal (HB ’15) was awarded for his commitment to and advocacy for underserved communities, including as a tutor in an East Palo Alto high school and a volunteer coordinator at Cardinal Free Clinics. He has been devoted to the student tutors and adult workers who comprise Habla, where his leadership strengthened the English as a Second Language curriculum, increased participant engagement and satisfaction, and incorporated technology to teach skills for job advancement. Christian’s sincerity, enthusiasm, and love for others led to establishing a culture of appreciation between Habla tutors and participants that engages others in public service.

Gabriella Momah (HB ’15) was awarded for being a positive role model and for providing culturally inclusive programming around issues of health and resilience in her work as a peer health and birth control educator for freshmen with Vaden’s Wellness and Health Promotion Services and as an adolescent health educator with Niños con Valor in Bolivia. Gabriella was also cited for her dedication to and support of the academic, personal, and professional development of her peers through dialog and fostering community as a resident assistant and dorm president of Ujamaa House. Gabriella’s inspirational leadership, maturity, and advocacy has motivated others to engage in public service.
ALUMNI NEWS

The program’s mission is to provide an interdisciplinary approach to understanding the human being from biological, behavioral, social, and cultural perspectives. The curriculum provides a broad and rigorous introduction to the biological and behavioral sciences and their interrelationships, and explores how this knowledge, in conjunction with studies in other fields, can be applied to formulate and evaluate health, environmental, and other public policies that influence human welfare.

Meet fellow alumni who have applied HumBio’s interdisciplinary mission to alleviate the world’s woes. From health care to education, from public service to migration, from transportation and the environment to authors writing on nutrition and psychological health, HumBio alumni roll up their sleeves and work very hard at making the world we live in a better place.

Jacqueline (Weiss) DePasse, MD, global health and innovation
Jackie (HB ’08) has worked with Partners in Health, interned with WHO, and travelled to India, Nepal, Morocco, and Uganda for research and clinical work. She attended UCSF medical school and recently graduated Internal Medicine residency from Massachusetts General Hospital, where she worked with the Consortium for Affordable Medical Technology and published several papers on innovation and global health. Jackie currently works for the Boston Consulting Group, and is also a Clinical Instructor at Brown University in the department of Hospital Medicine. She married Mason DePasse (Stanford Bio ’08) in 2012.

Jonny Dorsey, a Forbes 30 under 30 Social Entrepreneur and 2014-2015 White House Fellow in the Department of Education
Jonny (HB ’09), a public service evangelist, launched the FACE AIDS initiative on campus while student body president, raising $3 million for the effort. Jonny then co-founded Global Health Corps and the Impact Careers Initiative at the Aspen Institute. He served as a 2014-2015 White House Fellow and was recently recognized as one of Forbes 30 under 30 Social Entrepreneurs.

Desert Horse-Grant, one of the most “disruptive” women in health care
Desert (HB ’00), named a “Disruptive Woman to Watch in 2015” by Disruptive Women in Health Care, is in good company with fellow disrupters: U.S. Supreme Court Justice Ruth Bader Ginsberg, former Environmental Protection Agency administrator Lisa Jackson, and journalist Maria Shriver. She was also named one of “2015 Women to Watch in Life Science” by the Washington Biotechnology and Biomedical Association. Desert is Director of Strategy and Operations for Solid Tumor Translational Research (STTR) at Fred Hutchinson Cancer Research Center. Her multifaceted role includes enhancing scientific collaboration, eliminating research barriers, raising funds for innovative research, facilitating and banking research biospecimens, and identifying and facilitating new research that is translatable to patients within five years. She does all of this for more than 400 faculty spanning oncology research efforts. Read more at STTR.

Josh Hon’s goal: More butts on bikes!
Josh (HB ’89), founder and team captain of the Tern folding bicycle company, is dedicated to getting more "butts on bikes" for the sake of the environment and public health. His bicycles are designed specifically for urban transportation, and the company has made progress advocating for bicycles as a focus in the transport plans of city governments. For example, they are now working with 11 regional transport ministries in Germany to promote the use of bicycles with trains. Enjoy this recent report on Josh by Channel News Asia in a program called Fortunes From Fun.

Kaéche Liburd, checking off her list, helped usher in Affordable Care Act
Kaéche (HB ’09) recently reflected on her HumBio days, and was proud to have worked at the White House Office of Health Reform in 2010 just after graduating. The team she worked with helped to usher the Affordable Care Act through Congress, thus meeting one of her life goals of bringing equitable health care to individuals. She is now pursuing her artistic goals. Enjoy her interview with Caribbean POSH.
ALUMNI NEWS continued

**Rayden Llano, 2015-2016 White House Fellow in the Office of Management and Budget**

Rayden (HB ‘10) was accepted into one of America’s most prestigious programs for leadership and public service. He will have a year of first-hand experience working at the highest levels of the federal government, and participate in an education program consisting of roundtable discussions with renowned leaders. Rayden was program director of Health Policy and Economics at LSE enterprise, where he worked with public institutions on health policy issues and conducted health care research. He also worked with the Clinton Health Access Initiative in Rwanda and as a consultant to the World Health Organization in Asia. As a Luce scholar in Tokyo, he helped secure funding for the establishment of a global health committee within the Japanese parliament that has been chaired by two former prime ministers. Read more in the UNC Newsroom.

**Kibwei McKinney, MD, wins University of North Carolina Award**

Kibwei (HB ‘01), Chief Resident in Otolaryngology-Head and Neck Surgery, was awarded the 2015 Cefalo House Officer Award from the University of North Carolina - Chapel Hill. This award is given annually to residents from across the health system who have exhibited sincere dedication to patients and their families and maintained exemplary professionalism throughout their time at UNC. Kibwei is respected for his gentle demeanor and ability to communicate across all specialties. He shared his honor with HumBio, saying, “This was truly an honor and an extension of the commitment to service that was honed during my time spent in the Human Biology program. I thank you for the support that you and your faculty provided me all those years ago.” Read more in the UNC Newsroom.

**Ingrid Morris honored with 40 Under 40 Leadership Award**

Ingrid (HB ‘98), Healthcare Program Developer for Blue Cross & Blue Shield (BCBSNC), was recognized for leading the health literacy strategy at BCBSNC, and for contributions to her community, with a 40 Under 40 Leadership award given by North Carolina’s Triangle Business Journal. In an interview Ingrid proudly acknowledged HumBio and Stanford saying, “I feel that I still use my HumBio skills and training regularly. I also do a lot of community volunteering to promote health and wellness, especially in public schools.” Ingrid is on adjunct faculty and serves on the alumni board for the UNC Chapel Hill Gillings School of Public Health. She adds, “I have been blessed with amazing mentors who I met through Stanford and throughout my career. It is now my profound joy to mentor students and young professionals.”

**Tia Rich, PhD, promotes PEACE at Stanford**

Tia (HB ‘82) manages Stanford’s Health Improvement and BeWell programs where she teaches resilience, stress management, and contemplation. Enjoy an excerpt of a Q&A between BeWell and Tia:

**BW:** How can I thrive in a fast-paced world in which I have multiple roles and responsibilities?

**TR:** Practical self-care tools and resilience-building behaviors that rest the mind, refresh the body and restore the spirit help us thrive. HIP/BeWell’s acronym for fundamental stress management behaviors is PEACE: Pause, Exhale, Attend, Connect and Express. These actions easily fit into the flow of daily life to increase resilience and reduce the frequency, intensity and duration of distress, thus preventing stress-related illnesses and burnout. Read more in the Stanford Report.

**Nathan Selden, MD, PhD, appointed chair of neurosurgery at OHSU**

Nathan (HB ‘86) has been appointed Chair of the Department of Neurological Surgery at Oregon Health and Science University in Portland. He will begin January 1, 2016. Currently serving as the President of the Congress of Neurological Surgeons, he has also been a member of the neurosurgical faculty at OHSU for the last 15 years, and director of the neurosurgery residency training program for 10 years. Dr. Selden performed the world’s first transplantation of neural stem cells in a human patient in 2006. Among his many academic and career awards are the Marshall Scholarship, the John Thayer Scholarship, the 1998 Academy of Neurological Surgery Award, and the Lloyd W. Dinkelspiel award, won while a senior at Stanford.
Maya Adam, MD, Food Love Family: a practical guide to child nutrition

Maya (HB '05) serves up the latest scientific findings and medical recommendations, giving readers practical tips and examples of how to make wise food choices with available resources. Readers learn about the nutrients needed to support growth and how to prepare simple, healthy foods that are appealing to children. Designed to serve as a handbook, Food, Love, Family gives a solid introduction to the interrelationships between nutrition and child health, as well as the impact of food marketing on children. You can read more about Maya’s book here, or enjoy a recent video of Maya’s reflections on teaching. Maya teaches HumBio 121: Critical Issues in Child Health.

Geb Church, MBA, The Fireworks of Failure: how you can rise from the ashes

Geb (HB '76), President of Joule Energy, Inc., former football team captain and pro-draft pick, stokes a motivational fire, and offers a road map to recovery for his readers. You can read more about Geb's book here.

“While I’m no sage, my struggles have taught me much about self-love, positive thinking, discipline...I hope my words can aid you on your journey to celebrating, and overcoming your failures, and believing in the power deep within yourself.”

Stewart Patrick, DPhil, Council on Foreign Affairs Senior Fellow, blogs on Syrian migration crisis, and much more

Stewart (HB '87), Senior Fellow and Director of the International Institutions and Global Governance Program at the Council on Foreign Relations, works to improve international cooperation in tackling shared challenges, connect think tanks around the world, and examine how the U.S. should advance its national interests and future sovereignty amid the age of global challenges. From the Syrian migration crisis to climate change, the global governance of the internet to peacekeeper sex abuse allegations, as well as many more international concerns, Stewart’s expertise is sought by such media centers as Al Jazeera, New York Times, Los Angeles Times, NPR, and many more. Keep up to date by reading Stewart’s blog, the Internationalist. He has also authored five books and many papers.

Sheri Sobroto Brisson, MA, Digging Deep: a journal for young people facing health challenges

Sheri (HB ’84) is devoted to empowering children with special health challenges, and their families. Digging Deep, a book full of color, artwork, and writing prompts, gives kids and their families a communication tool that opens up more experiences for sharing difficult emotional concerns. The kids with whom she has worked with over the years helped her to create some of the book’s writing prompts, and responses are meant to be written directly onto the pages of the book. A malignant brain tumor survivor herself, Sheri saw a gap in how families can communicate with each other during the stressful time of a child’s serious illness. Visit the Digging Deep website or watch a video interview.

Don Barr book on Biosocial Medicine

Professor (Teaching) of Pediatrics, and, by courtesy, of Education, Barr’s new textbook was written in response to the growing recognition that physicians need to understand the biosocial sciences behind human behavior in order to be effective practitioners. A sociologist as well as physician, Dr. Barr addresses the potential of interventions from medical and public health professionals to alter patterns of human behavior that will benefit health. Barr teaches HumBio 120: Health Care in America: an introduction to U.S. Health Policy, HumBio 120A: American Health Policy, and HumBio 122S: Social Class, Race, Ethnicity, and Health.
Craig Heller class debugs haz-mat suit

Heller, Lorry I. Lokey/Business Wire Professor teaches HumBio 136: the Human Physiology lab, an advanced lab course organized around the questions: can heat-related performance decrements incurred by individuals clad in impermeable attire be mitigated? And, can the sensation of thermal comfort be affected by regional skin temperature manipulations?

In teams of two, students were both experimenters and subjects, alternating between treadmill exercises (in normal exercise clothing and protective suits that prevent evaporative heat exchange), and recording data. The anticipated variability led to rich discussions, which guided teams in constructing hypotheses and designing their own experiments. Students were also assigned to write a mock grant proposal, then present a synopsis to the class. Students Haley and Garseng found the camaraderie of the shared experience and the hands-on experiments very valuable.

Writing the mock grant proposals was incredibly helpful. Mine was on the use of compression to assist recovery. I will remember the excitement and the group ethic.

Haley Brogan (HB ’16)

The experiments in this class were super relevant for the ebola epidemic. Prototypes of the cooling device [think Camelback with a pumping system that cools the palm pads-like Heller’s GLOVE] were sent to Sierra Leone. It was valuable to see the fruits of our labor, how we felt, reflected in the data.

Garseng Wong (HB ’15)

Julie Parsonnet to teach epidemic intelligence

Parsonnet, George DeForest Barnett Professor in Medicine and Professor of Health Research and Policy (Epidemiology), will be teaching a new HumBio epidemiology course beginning in the winter of 2016. The course, Epidemic Intelligence: How to identify, investigate and interpret outbreaks of disease, will cover the principles of outbreak investigation, the principles and importance of disease surveillance, the principles of study design for field investigation, how to visualize and interpret data, including identifying biases and how to describe and analyze data. Students will meet with leaders of health departments of the state and the county and will be responsible for devising and conducting their own investigation of a health problem.

HumBio profs at Stanford’s inaugural 2015 Child X

Stanford Medicine and Lucile Packard Children’s Hospital’s Child x mission is to inspire innovation that will improve child and maternal health.

Anne Fernald, the Josephine Knotts Knowles Professor of Human Biology, discusses how early language experience shapes later life.

Paul Wise, Richard E. Behrman Professor in Child Health and by courtesy of Health Research and Policy, and Freeman Spogli Institute Senior Fellow, discusses the future of child health in America.

Sanjay Basu awarded high-risk high-return NIH grant

Basu, Assistant Professor of Medicine at the Stanford Prevention Research Center, was one of seven Stanford scientists who received the 2015 Pioneer, New Innovator, Transformative Research and Early Independence award. Basu specializes in the development of mathematical models that help improve disease-prevention programs, and teaches HumBio 154A: Disease control systems: epidemics, outbreaks, and modeling for public health.
In Memoriam: Clifford Robert Barnett

Barnett died peacefully on September 11, 2015. Barnett joined Human Biology in the mid-1980s to teach “Aging: from Biology to Social Policy.” He also led field seminars to the American Southwest in the late 1990s. Born in Brooklyn, New York in 1929, Barnett attended high school in Queens, New York where he met his lifelong love Zelda. They married in 1949. After graduating from The City College of New York in 1950, Barnett went to Cornell to further pursue what would be his life’s passion, anthropology. He received his MA in 1951 and his PhD in 1960. His thesis on the Vicos Project in the highlands of Peru still generates interest.

Barnett had a long time association with the Navajo Nation and later with the Zuni Pueblo. His association with teacher and mentor John Adair resulted in his participation in the Navajo-Cornell Field Health Research Program at Many Farms, Arizona. This project would be the first of many where he worked collaboratively with medical professionals, which led him to the field of medical anthropology. He went on to be one of the leading proponents of this branch of anthropology. His 1981 article “What is Medical Anthropology?” was adopted as the official statement of the Society for Medical Anthropology. In 1964, Barnett was hired as the Assistant Director for the Program in Medicine and Behavioral Science at Stanford University, and was named a full professor of Anthropology at Stanford in 1977, a position he held through 2001. Barnett cared deeply about the many students whose careers he nurtured.

Barnett was a wonderful raconteur and addicted to puns. He was also an ardent bicyclist, commuting and doing bicycle tours in the U.S. and abroad with Zelda on their tandem. In the latter part of his life, he and Zelda took up jazz dancing. This became a great passion, and even as his health waned, he found the energy to get out and dance. Read more in SFGate.

Christopher Gardner in the Guardian on the green diet, how to eat healthy and save the planet

Gardner, Research Professor of Medicine, Stanford Prevention Research Center, was quoted in the Guardian and at a Sustainable Foods Institute presentation in Monterey, CA on various aspects of sustainability including local economies, fair labor practices, animal rights, and environmental impacts. “I spent decades doing all this research to show people what they should be eating and I had very little success getting anyone to change their diet. But when I started adding in discussions about animal rights or labor practices or climate change, I saw really meaningful shifts in people’s willingness to change.” Gardner teaches: HumBio 113S a seminar on healthy food systems, and HumBio 130: Human Nutrition.

Paul Ehrlich and colleagues declare that the sixth mass extinction is here and threatens humanity’s existence

Ehrlich, HumBio founder, and Bing Professor of Population Studies and Senior Fellow at the Woods Institute for the Environment, co-authored a recent study published in the journal Science Advances. Using highly conservative estimates, they showed without doubt that we are entering a mass extinction. Species are disappearing up to about 100 times faster than the normal rate between previous mass extinctions. This level of loss is unparalleled over the past 66 million years—since the dinosaurs. “Avoiding a true mass extinction will require rapid, greatly intensified efforts to conserve already threatened species. Read more in the Stanford Report.

Gordon Matheson provides insights into injury impacts using Stanford student athletes

Matheson, Professor of Orthopaedic Surgery (Sports Medicine), found that by tracking athletes’ health with electronic medical records, researchers can deliver a more comprehensive picture of the lingering effects of certain injuries. Stanford physicians now have a medical report of nearly 1,700 student athletes with data collected over a three-year period, which provides insight into the lasting impact of injuries. With aggregate data like this, researchers can begin to measure trends and spot areas of concern applied to prevention. Matheson teaches HB 139E: Sport and Exercise Medicine. Read more in the Stanford Report.

The impact of conflict on children’s health

In Memoriam: Arthur Wolf, the David and Lucile Packard Foundation Professor in Human Biology, died on May 2, 2015 at the age of 83. Wolf began as a member of Stanford's anthropology faculty in 1969, and began teaching as Human Biology's core social science coordinator in 1976, and continued into the 2000s. A masterful instructor, he focused on the intersections between social anthropology and human biology and how biology and culture jointly shape the human condition.

In his research, Wolf examined family practices, including marriage and adoption, and among the numerous books and articles that he authored, he co-authored Inbreeding, Incest, and the Incest Taboo with William Durham, Bing Professor in Human Biology, and Professor of Anthropology. In comments shared with the Stanford Report, Durham said, "The book was an outgrowth of a unit Arthur and I taught together for more than 25 years in the human biology core. We staged it as a debate between different perspectives on the incest taboo, putting the students in the role of judge, which they loved. He knew the topic so well, and his data were so convincing that the best I could do most years was a tie. His writings on the topic rank as an anthropological classic and will be read for years to come."

In an interview taped in honor of Human Biology's 40th birthday, Wolf said, "A human being is not psychological, biological, anthropological, or sociological—the history of western development, western science made these divisions. I see the program as a major contributor, as a bridge to overcome what are basically artificial divisions. These are very difficult to overcome." Watch the full interview on the HumBio-movies YouTube channel. You can also read more in HumBio's 30th History.

Wolf also authored Sexual Attraction and Childhood Association: A Chinese Brief for Edward Westermarck, and Marriage and Adoption in China, 1845-1945.

The only son of a sharecropper and dairywoman, Wolf worked on his family's Santa Rosa ranch as a teenager. He also logged in Santa Rosa, and mined in Alaska. He earned a Doyle Scholarship at Santa Rosa Junior College, then a Telluride Fellowship to attend Cornell University. He spent many years doing research in Taiwan, amassing a vast archive of information on early 20th century Taiwanese households, and continued this work and other studies in comparative Taiwan/Dutch demography at Stanford. Wolf spent a year apiece at the London School of Economics at Oxford University, and the University of Cambridge. A renaissance man, Wolf built (including felling trees for lumber) the handsome Saltlick House. As reported in SFGate, this will be the core of his Rockpile Foundation, which is meant to help scholars during this time of academic constriction.

Friends and colleagues recall Wolf as a wonderful conversationalist with an extraordinary breadth of knowledge and great command of humanity's cultural variation. Wolf’s teaching and curricular innovations in HumBio were a tremendous asset. "I taught the Introduction to Human Biology with Wolf for 15 years, and benefited from Wolf's exceptional ability to explain how culture and biology interact to make us human," said Wolf's close friend and colleague Richard Klein the Anne T. and Robert M. Bass Professor in the School of Humanities and Sciences, and professor of Anthropology and Biology, in the Stanford Report.

Professor Wolf will continue to have a special place in Human Biology as well as in the hearts and minds of our faculty and so many past students.

Human Biology courses taught by Author Wolf:


Travel with HumBio Pros!

**William Durham**
Sept. 9-25, 2016
*Patagonia Field Seminar*

*Galapagos Expedition*

**Robert Siegel**
Aug. 5-16, 2016
*Borneo*

Cardinal Service needs you
Cardinal Service is a new university-wide initiative that reaffirms service as a distinctive feature of a Stanford education. With HumBio's strong service culture, we thought you might be interested in learning more about this program.

Cardinal Service aims to increase the number of full-time, quarter-long service fellowships from 350 to 500 by 2020; expand community engaged learning courses from 70 to over 150 by the end of 2020; and strengthen efforts to encourage service commitments and careers.

Summer Cardinal Quarter
If you or your organization want to host a HumBio student for a summer Cardinal Quarter, please visit [Hot Leads](#). Students are beginning to explore summer opportunities, so now is the perfect time to express your interest in having a Stanford student this summer. Learn more by visiting [cardinalservice.stanford.edu](http://cardinalservice.stanford.edu).

**BEYOND HUMBIO**

**Alumni Panel**
To participate in a panel, contact Lia: [cacciari@stanford.edu](mailto:cacciari@stanford.edu)

**BREAKING THE GOLDENROD**

Or as director Paul Fisher likes to say, “It's not the 80's anymore!” After several decades of using the tried-and-true goldenrod colored paper for major declarations, HumBio has broken with the past and is now employing an online declaration tool, dubbed SFAC'T (Student/Faculty Adviser Course of study Tool).

Lia Cacciari, Student Services Officer, forges a path into the future with sage advice for the next generation, "You may break the goldenrod, but do not break the golden rule: PREPARE AND THEN DARE TO DECLARE!!"

**HumBio Staff**

Director: Paul Fisher
Assoc. Director: Katherine Preston
Manager: Linda Barghi
Student Service Officer: Lia Cacciari
Student Service Asst: Matt Kramer
Writing Specialist: Shay Brawn
Alumni Relations: Robyn Duby
Course Support: Barbara Hunt
Core Coordinator: Annette Salmeen
Academic Technology: Carlos Seligo
Newsletter: Robyn Duby
This newsletter is available online: [https://humanbiology.stanford.edu/news/program-newsletter](https://humanbiology.stanford.edu/news/program-newsletter)