



# A MESSAGE FROM JOSH MAKOWER



## Dear friends of Biodesign,

As I sit down to write this note each year, I am continuously impressed by the breadth of activities the amazing Stanford Biodesign team undertakes and the impact we have on people around the world. 2023 was no exception.

With an eye toward our purpose of advancing health outcomes and health equity, we continued to organize our endeavors around five strategic pillars:

- Protecting and enhancing our core educational and translational offerings
- Extending Stanford Biodesign's sustainability
- Expanding the scope of our programs and courses to support innovation across broader life science domains
- Executing on the establishment and advancement of the new Stanford Biodesign Policy Program
- Prioritizing health equity in our efforts both within and outside Stanford

I am proud to share that across all five pillars, we had a very successful year.

### Core Offerings

Today, Stanford Biodesign offers three fellowships, eleven courses for Stanford undergraduate and graduate students, an annual Executive Education program, a training program for faculty from outside the US who want to launch Biodesign programs at their home institutions, and multiple global partnerships. To assess the caliber of our programs and courses, and establish a baseline for future comparison, we surveyed all 450+ individuals we trained during the 2022-23 academic year. The feedback received (with 77% responding) was highly complimentary. Across all programs, on a 5 point scale, we received average scores of 4.7 for instruction, 4.6 for content, and 4.6 for the overall educational experience. This is a testament to the exceptional efforts of Lyn Denend and her Academic Programs team, as well as the outstanding teaching teams, coaches, and guest speakers. It also speaks to the value our trainees derive from their experiences with us.

### Life Science Expansion

We made significant progress in our life science expansion efforts as well. The 2022-23 Innovation Fellows were

the first cohort to receive instruction and guidance on biopharmaceutical innovation, in an effort led by serial biotechnology entrepreneur and 2010-11 Innovation Fellow Michael Ackermann. Two of the three fellowship teams showcased biopharmaceutical solutions in their final presentations, and both projects are ongoing. For the 2023-24 cohort, we've further adapted the curriculum to include regular domain-specific mentorship in digital health, led by digital health director and 2015-16 Faculty Fellow Oliver Aalami, together with associate digital health director and 2012-13 Innovation Fellow Ryan Van Wert. We can't wait to see what this year's teams will come up with, but we're excited to further validate the relevance of the Biodesign process beyond medtech and to see that this broader focus is already bearing fruit.

### Policy Program

With the on-campus arrival of our first cohort of Policy Fellows, all three components of our Policy Program — education, research, and engagement — are truly underway. Program director Kavita Patel constituted an outstanding group of experts - Eb Bright (IP), Nancy Isaac (Regulatory Policy), Jay Khosla (Federal Policy and Politics), Rohini Kosoglu (Political Affairs), Jan Pietzsch (Health Economics and Value), Stella Safo (Health Equity), and Piper Su (Healthcare Finance and Payment) — who are guiding the fellows' learning across these six domains. We also continued to publish influential research on critical health policy issues and are seeing the results in real time in DC. In a demonstration of the power of such data-backed studies, I was invited to testify before the Health Subcommittee of the House Committee on Ways and Means in May on policies that inhibit innovation and patient access. Additionally, our team has continued to be a resource on both sides of the aisle and with multiple government agencies as they evaluate ideas for advancing innovation in health in the United States.

### [Global] Health Equity

Drawing on our extensive learnings from our first global partnership, Stanford-India Biodesign, and the many others that have resulted in over 50 Biodesign-inspired programs across the world, we began a process in 2022 to identify a region with substantial clinical need,

the right mix of capable facilities and faculty, as well as government and community support, where we could collaborate with local partners to support the advancement of a local health technology ecosystem. We found a match in East Africa, and we identified a wonderful supporter in the Bill & Melinda Gates Foundation. In 2023, we trained two founding faculty members and officially launched the East Africa Biodesign program in partnership with the University of Global Health Equity, the University of Rwanda, and Kenyatta University. I am inspired by the caliber and enthusiasm of the first cohort of fellows — they are amazing, talented individuals with a passion for improving health and healthcare in their region — and I am looking forward to following their fellowship journey in 2024 and beyond.

### Sustainability

The accomplishments detailed above are only possible thanks to the strong support and dedication of our sponsors, donors, board members — Todd Brinton, Brook Byers, Lisa Earnhardt, Ingrid Ellerbe, Asha Nayak, Paul Yock — and the extended Stanford Biodesign community. As we look ahead, we see considerable opportunity to have a transformative, global impact on health outcomes and health equity. We're working hard to secure the future of the center, and we welcome all suggestions and ideas from this extraordinary community on how to do so. There is no doubt we would not be here without you, and we hope we can continue to earn your trust and support as we train innovators to solve the world's most pressing health problems for patients everywhere.

I hope you enjoy reading about our 2023 activities in more detail in the sections that follow.

Sincerely,



Josh Makower, MD  
Director and Co-Founder, Stanford Byers Center for Biodesign  
The Yock Family Professor of Medicine and Bioengineering  
Stanford University

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# INNOVATION FELLOWSHIP

As our 22nd cohort of Innovation Fellows proceeded through the second half of their 10-month experience, we continued our efforts — initiated at the start of the fellowship year in August — to enhance the foundational elements of the curriculum with new content intended to broaden the scope of solutions the fellows conceptualize and develop to maximize patient impact.

## Expansion in Biotechnology

While the Identify phase of the fellowship remained largely unchanged, the fellows were reminded to pay attention to the whole patient and their broader health picture. To facilitate the identification of insights, they were encouraged to understand the physiology and pathophysiology of their needs at the cellular and molecular levels. In the Invent phase, to enable ideation of biopharmaceutical solutions for treatment and prevention-related needs and molecular diagnostic solutions for diagnosis-related needs, the teaching team educated the fellows on pharmaceuticals, common biotechnologies, drug delivery, and molecular diagnostics. They also supported them with regular domain-specific project coaching.

By January 2023, the fellows were at the Implementation phase of their training. In this phase, they focused on topics including intellectual property, regulatory pathways, business models, and market access, as well as technical feasibility. Here too, they were made aware of differences in strategy specific to

biopharmaceuticals. New speakers and mentors with domain expertise shared many of these insights.

In April, the fellows presented their most promising projects to a panel that included Paul Yock, director emeritus of Stanford Biodesign, Lloyd Minor, dean of the School of Medicine, Andra Blomkalns, chair of the department of emergency medicine (the clinical area of focus for the year), and Beverly Huss, one of the Innovation Fellowship project coaches who bring real-world CEO experience to the fellows' training. Two of the three lead projects presented by the fellows were in the biotech domain: 1) a pharmaceutical solution to increase pelvic floor elasticity to reduce the incidence of severe perineal tears in first-time mothers delivering vaginally, and 2) a pharmacological solution to allow sufferers of peripheral vertigo to go about their activities of daily living without feeling vertiginous and without being sedated.



2022-23 fellows with Dean Lloyd Minor and fellowship directors James Wall and Dan Azagury

# INNOVATION FELLOWSHIP

In the fall, the 2023-24 cohort commenced their fellowship. Their clinical focus is oncology. The biotechnology curriculum expansion effort continues with this cohort.

## Expansion in Digital Health

The new fellows received introductory lectures on digital health and what differentiates it from traditional medical device development during bootcamp in their first month. Grounding the discussion on the quintuple aim for healthcare improvement, the teaching team established the ways in which digital health solutions can help to drive those aims. They explored the different categories of digital health solutions, including software, hardware, tech-enabled services, data, analytics and AI, as well as triple-layer solutions. The fellows were also exposed to case studies across the different categories, including examples of successful solutions developed by prior Stanford Biodesign trainees. As they proceeded to identify unmet needs and conceptualize new solutions, they continued to receive dedicated support and guidance from the digital health leads.

## Focus on Health Equity

Within the Innovation Fellowship (and across our other programs and courses,) we accelerated our efforts to facilitate the awareness of health equity-related challenges and opportunities in health technology innovation. Strategies employed included incorporating health equity and access considerations into most of our didactic training topics, including stakeholder analysis, market

sizing, business models, funding, and more. We also developed new programming around Medicaid and Medicare, social determinants of health, designing for inclusion, impact analysis, theories of change, and exploring different sources of capital. And we developed case studies on innovations for underserved populations, innovations that address health inequities, and innovations with business models that have enabled success albeit while serving smaller markets.



Innovation Fellow Nathaniel George presents on a project from Nigeria at a brown bag lunch

The team driving these efforts meets regularly with fellows to help them think through equity and access issues related to their projects. The team also launched a monthly brown bag lunch series that has created a forum for fellows, faculty, and staff to learn from their colleagues' prior experiences, and from other innovators creating solutions to address existing health inequities.

# POLICY PROGRAM

We launched the Stanford Biodesign Policy Program in 2022 to build a bridge between health technology innovators and policymakers, and to facilitate innovators' ability to improve patient care. With physician and health policy expert Kavita Patel's appointment as a professor in the School of Medicine and director of the Stanford Biodesign Policy Program, as well as the on-campus arrival of our first cohort of Policy Fellows, 2023 was a watershed year for the program. We published seminal research on the time it takes to establish Medicare coverage for novel medical technologies, and organized several well-attended webinars on policy issues of critical importance to innovators, patients, and policymakers.

## Education

The two-year Policy Fellowship is a cornerstone of the Policy Program. It aims to develop future health policy leaders with a deep understanding of how health technologies can be leveraged to improve patient outcomes, expand access to care, and reduce healthcare costs. The 2023-25 cohort is made up of four accomplished fellows with prior backgrounds in nursing, public health, internal medicine, and entrepreneurship. Together with the Innovation Fellows, they began their learning on August 1 with a one-month bootcamp that grounded them in the biodesign innovation process, laying the foundation for what would follow.

Throughout the fall, the fellows participated in lectures curated by the seven domain directors, to help them develop a deep and substantive understanding of the complexities of health policy and how policy and innovation are interlinked.

## Lecture Highlights

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**Rohini Kosoglu**, former deputy assistant to President Biden and domestic policy advisor to Vice-President Kamala Harris, and **Jay Khosla**, former chief economic counsel for Senate Majority Leader Mitch McConnell, taught sessions on the art of policymaking. They crafted exercises that challenged the fellows to develop policy briefs on decisions making headlines in the present-day.

**Nancy Issac**, regulatory counsel and VP of quality at Moximed, Inc. lectured on the step-by-step phases in device and therapeutic product development, the realities of navigating the regulatory environment, pre-clinical and clinical proof of principles, and how and when to seek guidance from the FDA.

**Eb Bright**, a patent attorney and the president and general counsel of medical device incubator ExploraMed, gave the fellows a primer on intellectual property - the fundamentals of IP, the history of US innovation policy and the connection to national security, and the impact of IP policies on investment, technology development, and economic development.

**Stella Safo**, an HIV primary care physician and founder of healthcare improvement company Just Equity for Health, delivered sessions introducing the principles of health equity, why it matters, considerations in different contexts, and equitable care model design.

**Jan Pietzsch**, CEO of technology consulting firm Wing Tech Inc., who has also taught the Stanford Biodesign course Technology Assessment and Regulation of Medical Devices since 2005, introduced the fellows to reimbursement data tools and also took them through a case study on evaluating the cost-effectiveness of new inventions.

**Piper Su**, an expert on market strategy, and on policy issues related to healthcare payment and delivery, gave the fellows an introduction to Medicare and Medicaid, the current state of play in payments, and a view of what may come in the future.

# POLICY PROGRAM



Fellows with guest speakers Robert Taylor, Suzanne Harrison and IP domain director Eb Bright

## Research

In our 2022 publication, “The Need for Accelerated Medicare Coverage of Innovative Technologies: Impact on Patient Access and the Innovation Ecosystem,” we reported that innovators and investors estimate that it takes 4.7 years (+/- 2.8 years) to establish nationwide Medicare coverage for breakthrough technologies. In 2023, in *Jama Health Forum*, we published “Time From Authorization by the US Food and Drug Administration to Medicare Coverage for Novel Technologies.” This time, we assessed 64 novel technologies that had been authorized by the FDA between January 1, 2016 and December 31, 2019, that were seeking new coverage or codes. The time spent seeking a coverage milestone was variable, ranging from 91 days to about 7 years. The median time-to-coverage was at least 5.7 years, about a year longer than the estimates from industry professionals in the prior research. This data highlighted the need for a new, more efficient pathway for coverage of novel breakthrough technologies.

Policy research director Sandra Waugh Ruggles’ diligent stewardship of the research and writing process had a tremendous impact on the quality of both papers. Following the publication of the 2023 analysis, we organized a webinar in August, which featured a presentation of the research findings by Ruggles and another senior author Kevin Schulman, a professor of medicine and senior advisor to the program. Kavita Patel then moderated a discussion on the implications of the findings with Josh Makower and industry professionals Leslie Trigg, CEO of Outset Medical, and Parashar Patel, vice president at McDermott+Consulting.



Panelists Parashar Patel, Josh Makower, Sandy Ruggles, and Leslie Trigg with moderator Kavita Patel

With the explosion of interest in artificial intelligence in 2023, we also published a viewpoint article in *JAMA Network*, “AI Alone Will Not Reduce the Administrative Burden of Health Care,” where we discussed some of the complexities of the US healthcare system which must be better understood before automation can be applied efficiently.

Each Policy Fellow also is undertaking a research project with the guidance of a senior author and research mentor. Their areas of focus are



# POLICY PROGRAM

medicare coverage for emerging technologies; evidence supporting US FDA drug approvals; data interoperability; and artificial intelligence in healthcare innovation. By the end of their first year, they each will have produced an asset that will be useful for briefing policymakers and driving impact.



Fellows with Kavita Patel and Doug Owens, chair of the department of health policy

## Engagement

The year presented a number of opportunities to raise the profile of the Policy Program in government circles.

As part of their experiential learning program, more than 100 staff members of the Food and Drug Administration’s Center for Devices and Radiological Health joined us in April and May for a three-part online series aimed at fostering a deeper understanding of the challenges faced by non-traditional innovators. Led by our Stanford Biodesign faculty, each session featured an engaging panel discussion that showcased some of our alumni who founded companies from their fellowship and course projects, followed by breakout sessions with the attendees.

In April, two former directors of the US Patent and Trademark Office, Andrei Iancu and David Kappos, were joined by then chair of the Patent Public Advisory Committee, Suzanne Harrison, to discuss the role intellectual property law and policy play in supporting innovation and technological disruption, particularly in the healthcare sector. The conversation was moderated by the Policy Program’s intellectual property director, Eb Bright.

In May, Josh Makower was invited to testify before the Health Subcommittee of the House Committee on Ways and Means. Drawing on our research on the “valley of death” that confronts medical technology innovators as they await insurance coverage following FDA authorization of their technologies, he highlighted the risks to the continued development of breakthrough technologies without an expedited reimbursement pathway.



Josh Makower testifying in Congress

# GLOBAL PROGRAMS

## Monthly health policy webinar series

Moderated by Kavita Patel, these monthly conversations offered the opportunity to deep-dive on significant and timely issues.

### September - AI

Aneesh Chopra, former US chief technology officer, Jerome Adams, former US surgeon general, Rohini Kosoglu, former deputy assistant to the president, and Oliver Aalami, director of digital health at Stanford Biodesign discussed the compelling ethical and equity challenges posed by the broad potential use of artificial intelligence in healthcare and healthcare decision-making.

### October - Drug Pricing

Drug policy experts Allan Coukell, SVP of public policy at nonprofit generic drug manufacturer Civica Rx, Michelle McMurry-Heath, former president and CEO of the Biotechnology Innovation Organization, and Kevin Schulman, professor of medicine at Stanford University shared lessons learned in leading efforts focused on balancing innovation and cost, and also highlighted policy gaps that need to be addressed.

### November - Laboratory Developed Tests

ACLA president Susan Van Meter, physician executive Bruce Quinn, and Stanford Biodesign's Sandra Waugh Ruggles discussed the Food and Drug Administration's new proposed language on laboratory developed tests, and the potential impact on clinicians, patients, and innovators.

## East Africa Biodesign

With financial support from the Bill & Melinda Gates Foundation, and under the leadership of our executive director Gordon Saul, we launched East Africa Biodesign, our first educational partnership in Africa, together with the University of Global Health Equity (UGHE), the University of Rwanda, and Kenyatta University, in 2023. To lay the groundwork for the East Africa Innovation Fellowship, two faculty members from our partner institutions, Natnael Shimelash, and Gerard Rushingabigwi, joined our 2023 Global Faculty Training program from January to June. They learned the biodesign innovation process, how to teach it, and the nuts and bolts of setting up a fellowship program at their institutions.

In May, Lesley King, former chair of the board of UGHE, Amy Schellpfeffer, senior program officer, devices & AI at the Gates Foundation, and other global health and East Africa affiliates in the Bay Area joined us at Stanford Biodesign to officially announce the program.



Natnael Shimelash, Josh Makower, Gerard Rushingabigwi, Ritu Kamal, Krista Donaldson, Gordon Saul, and Lesley King at the launch event

# GLOBAL PROGRAMS

144 individuals from 12 countries across the continent submitted applications to join the first cohort of East Africa Biodesign Innovation Fellows. The four selected fellows commenced their 10-month experience in Kigali, Rwanda, in January 2024. With a clinical focus area of maternal and child health, they will be guided by a core teaching team that includes Shimelash and Rushingabigwi, together with Stanford Biodesign's director for global programs Ritu Kamal, director for innovation to impact Krista Donaldson, and associate director for engineering Ross Venook. A second fellowship hub in Nairobi, Kenya, is

in the works. In 2024, two faculty members from Kenyatta University will participate in the Global Faculty Training program, with the goal of launching the Nairobi-based Innovation Fellowship in 2025.

## Other Global Programs

We continued to support our partners and affiliates in Singapore and Japan, both major contributors to the strong healthtech ecosystem in Asia Pacific. As in prior years, we welcomed the Singapore Biodesign Innovation and Faculty Fellows to Stanford for a two-week visit in January. They spent valuable time with coaches and mentors at Biodesign and at Fogarty Innovation. In February, faculty and fellows from Japan Biodesign arrived for an intensive week of meetings, tours, and working sessions.

We wrapped up the first quarter of the year with Josh Makower, and our lead mentor for Japan Biodesign, Sandra Waugh Ruggles, participating in graduation activities for Japan Biodesign's Innovation Fellowship; Josh gave the keynote address. While in Japan, Josh also met with several government officials, including a member of the prime minister's cabinet focusing on science and technology, and the minister of economy, trade, and innovation.

In April, Anurag Mairal, global outreach director, and Rajiv Doshi, India program director were awarded the Edwards Lifesciences Foundation Partner Collaboration Award for their work on rheumatic heart disease education and prevention in India and other low and middle income countries.

## East Africa Fellows



### Sawsawit Tesfaye, Ethiopian

- Physician
- Director - Center for Healthcare Innovation at AaBET Hospital
- Director - QI at Bichena Hospital
- Founder - 3D printing medical device company



### Bazil Mlamba, Kenyan

- Biomedical engineer
- Instructor - Kenyatta University
- Fellow - University of Pisa Medical Device Design program
- Awardee - Rice360 seed grant for low-cost oxygen concentrator



### Maureen Mebo, Malawian

- Biomedical engineer
- Tech. M&E Officer - NEST360 neonatal medical device trials & implementation
- Clinical Research Engineer for the IMPALA Project at Queen Elizabeth Central Hospital



### Bertrand Kwizera, Rwandan

- Physician
- Clinician at Nyarugenge District Hospital
- Innovator - Smart Helmet

# GLOBAL PROGRAMS



Anurag Mairal and Raj Doshi at the Edwards Lifesciences Foundation award ceremony

In July, Stanford Biodesign co-hosted the Uttar Pradesh Health Technology Summit 2023 with the government of Uttar Pradesh, the most populated state in India. Twenty-five India-based start-ups participated in the event, held in Lucknow. Two of our Founders Forum companies, Tricog Health and Forus Health, were presented awards for having impacted 10 million patients each.

That same month, Josh Makower and director for academic programs Lyn Denend represented Stanford Biodesign at the Asia Pacific meeting of the Biomedical Engineering-Innovation, Design, and Entrepreneurship Alliance (BME-IDEA), which was held in Taiwan. This annual convening brings together the leaders of Biodesign programs across the region to share best practices and explore collaboration opportunities, with the philosophy that our programs are stronger together. More than 30 representatives from Australia, India, Israel, Japan, Singapore, and Taiwan participated in the event, the majority of whom had completed training at Stanford Biodesign.



Josh Makower and Lyn Denend with Asia-Pacific Biodesigners

2023 also saw the creation of our new Program Development Associate (PDA) offering — a mechanism to provide support and resources to other institutions interested in setting up Biodesign-like programs. Einstein Biodesign, founded in Brazil by former participants in our Global Faculty Training program, is our first PDA. In November, the first cohort of Einstein Fellows joined us for a week to learn more about the Silicon Valley health tech ecosystem.



Einstein Fellows reviewing innovation display cases at Stanford Biodesign

# OTHER PROGRAM UPDATES

## Translational Grant Programs

In 2023, Stanford Biodesign awarded \$1.4M in funding to fifteen project teams through our three main seed grant programs: the Spectrum Health Tech Grants, the Stanford-Coulter Translational Research Grants, and the Neuroscience: Translate Grants.

We awarded an additional \$160,000 to three Innovation Fellows, two Faculty Fellows, and two teams from our graduate-level Biodesign Innovation course, to enable the continued development and de-risking of their projects through the summer. We also supported nine undergraduate project teams, through post-class learning activities, to build more skills to advance their projects.

## Grantee Spotlight



Todd Coleman and team receive the Robert Howard Next Step award

Todd Coleman, PhD, associate professor of bioengineering and Sumit Bhargava, MD, clinical professor of pediatrics, lead a team of research scientists, undergraduate, and graduate electrical and bioengineering students who've developed a mechanism to diagnose moderate to severe obstructive sleep apnea in children, at home. This test aims to help parents, in particular those with limited access to testing facilities, to monitor the severity of their children's condition, to inform the need for surgical intervention. The team received a Stanford-Coulter Translational Research Grant, and were also announced as the winners of the 10th annual Robert Howard Next Step Award, at the June 2023 graduation ceremony.

## Impact1 at Stanford Biodesign

The Impact1 team, led by alumni of the Innovation and Faculty Fellowships, continued working to accelerate the development and availability of high-value, high-impact pediatric and maternal health technologies. The team also represents the Stanford leadership of the UCSF-Stanford Pediatric Device Consortium, which was awarded five additional years of FDA funding in 2023 to sustain its work. Since 2019, Impact1 has supported over 150 projects and alongside the PDC has provided over \$1.5M in grants to promising companies.

In October, the team hosted its inaugural CEO Summit, bringing together some of the top minds in pediatric healthcare innovation to share their successes and their struggles, and to foster collaboration within the community.



Attendees at the Impact1 summit

# OTHER PROGRAM UPDATES

## Other Digital Health Activities

Beyond their engagements with the Innovation and Policy Fellows, our digital health team initiated and supported multiple projects in 2023, which attained important milestones.

Building on their original CardinalKit template application, the team launched Stanford Spezi, a first of its kind open-source and HL7 FHIR\* native ecosystem of modules for building modern, interoperable, and standards-based digital health solutions.

Students in the Stanford Biodesign course Building for Digital Health, most of whom had no prior mobile app development experience, successfully leveraged the first prototype of the Spezi framework to create five real-world applications for digital health research and clinical care at the Stanford University School of Medicine and the University of Utah School of Medicine.



Paul Schmiedmayer, assistant director of digital health, teaching in the Building for Digital Health class

\*HL7 FHIR - Data interoperability standard created by the standards development organization Health Level 7

The team collaborated with other researchers at Stanford to support their translational research efforts, two of the most significant being a study that demonstrated that the Apple Watch can record arrhythmia events in children, including those missed on traditional monitoring, and the development of a remote technology to send quantitative, validated measures of all motor symptoms of Parkinson's disease to health care providers.

## Other 2023 Updates

114 participants from BBraun, BD, Dexcom, Edwards Lifesciences, Johnson & Johnson, Siemens Healthineers, Veranex, and Zimmer Biomet participated in the 10th offering of our annual Executive Education program.

Our Biodesign Faculty Fellows (BFF) program also entered its 10th year, with more than 100 faculty members participating since 2013.

We trained more than 350 Stanford students, from medicine, engineering, and business, across 11 undergraduate and graduate courses.

Twelve global faculty from institutions in Brazil, Israel, Rwanda, Taiwan, and Thailand participated in the 2023 Global Faculty Training program.

The US-based chapter of the Biomedical Engineering-Innovation, Design, and Entrepreneurship Alliance (BME-IDEA), founded by director emeritus Paul Yock, celebrated its 20th year with a meeting in Seattle, WA that included a celebratory retrospective on the consortium's history, as well as more sharing of best practices in teaching health technology innovation.

# COMMUNITY EVENTS

## From the Innovator's Workbench

To celebrate his enormous impact and influence on the Silicon Valley medtech community, our first event in March featured Casey McGlynn, who built the life sciences practice at Wilson Sonsini Goodrich & Rosati. In an interview with David Cassak of Medtech Strategist, McGlynn shared reflections on his storied career, touching on some of the most important deals he executed, and the people he learned from and collaborated with along the way.

In April, Angela Macfarlane, CEO of Perceive Biotherapeutics, spoke candidly with Stanford Biodesign's Lyn Denend about her early experiences in healthcare and the eight successful startups she helped launch as managing member of Forsight Labs LLC. Her stories about the challenges that shaped her, and the critical role that mentorship played in her career, made for a truly inspirational evening.

Beth McCombs, EVP & CTO at Becton, Dickinson and Company, was our featured speaker in October. In a conversation with Medtech Strategist's David Cassak, McCombs touched on the CTO's role in new product development and shared her beliefs in purposeful innovation — ensuring every product in their portfolio is very differentiated and driving both clinical and economic value.



Andrew Cleeland, Casey McGlynn, David Cassak, and Josh Makower



Kate Garrett, Angela Macfarlane, and Lyn Denend



Innovation and Policy Fellows with Beth McCombs

# COMMUNITY EVENTS

## The Thomas J. Fogarty, MD Lecture

In the 25th Fogarty Lecture — the final one! — Tom Krummel, founder of the series, reflected on some of the most influential ideas shared by the many luminaries who graced the stage in prior years. Then, Stanford Biodesign director Josh Makower and Fogarty Innovation CEO Andrew Cleeland shared how the two organizations are shaping the path ahead for healthtech innovation.



Andrew Cleeland, Tom Krummel, and Josh Makower



## People

With the launch of multiple new programs in 2023, we welcomed several new colleagues to the Stanford Biodesign team:



Awo Addo  
Director, Marketing & Communications



Krista Donaldson  
Director, Innovation to Impact



Tamu Green  
Director, Health Equity & Inclusive Design



Deja Hill  
Events Specialist



Meghana Nerurkar  
Assistant Manager, Courses & Global Programs



Mollie Tiernan  
Policy & Program Coordinator



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We deeply appreciate all of our sponsors who continue to support us to advance our mission. A special thank you to Brook Byers, whose generous support impacts all aspects of our operations.

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**We also appreciate all of our individual donors, along with all those who are supporting our named fellowship endowments:**

The Cottrell Biodesign Innovation Fellow  
The Duerig Family Innovation Fellow  
The Khosravi Innovation Fellow  
The Lu Family Innovation Fellow  
The Stanford Biodesign Alumni Association Fellowship Fund  
The Paul Yock Biodesign Fellowship Fund

## Get Involved!

For more information on how you can support Stanford Biodesign, please contact Debbie Drake Dunne (debbiedd@stanford.edu; (650) 497-2371). To learn more about Stanford Biodesign visit us at <https://biodesign.stanford.edu>.



2023 Global Faculty Trainees



Students in the sophomore college course Needs Finding in Healthcare practice their observation skills

Stanford Biodesign is proud to have helped educate

**207** Innovation Fellows since 2001

**3,000+** Stanford students since 2002

**121** global faculty and fellows since 2006

**96** Stanford faculty since 2015

Technologies invented by these trainees during their Stanford Biodesign training have helped more than **10 million** people worldwide.



Innovation Fellowship alumni

# SNAPSHOTS



Design day at the d.school



Volunteering with Second Harvest



Biodesign's got talent



Spirit day



Uday Kumar and Ravi Pamnani at the holiday party



The program team



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