STANFORD BIO-X PHD FELLOWSHIP PROGRAM 2024

2024 Stanford Bio-X Fellows

The Stanford Bio-X Graduate Fellowships

The mission of the Stanford Bio-X Program is to catalyze discovery by crossing the boundaries between disciplines to bring interdisciplinary solutions, to create new knowledge of biological systems, and to benefit human health.

Since it was established in 1998, Stanford Bio-X has charted a new approach to life science research by bringing together clinical experts, life scientists, engineers, and others to tackle the complexity of the human body. Currently, over 1,300 Stanford Faculty and over 8,500 students, postdocs, researchers, etc. are affiliated with Stanford Bio-X. The generous support from donors, including the Bowes Foundation, enables the program to remain successful—at any given time, Stanford Bio-X is supporting over 60 Ph.D fellows, and Fall 2024 brings 21 new fellows to the program. These remarkable young researchers receive full support (stipend and tuition) from Bio-X for three years of their graduate studies, allowing them to approach exciting research questions as they create connections within the Bio-X community and across campus.

The Stanford Bio-X Graduate Fellowship Program was started to answer the need for training a new generation of visionary science leaders capable of crossing the boundaries between disciplines in order to bring novel research endeavors to fruition. Since its inception in 2004, the three-year fellowships, including the Stanford Bio-X Bowes Fellowships and the Bio-X Stanford Interdisciplinary Graduate Fellowships (Bio-X SIGFs), have provided 406 meritorious graduate students with awards to pursue interdisciplinary research and to collaborate with multiple mentors, enhancing their potential to generate profound transformative discoveries.

Stanford Bio-X Fellows become part of a larger Stanford Bio-X community of learning that encourages their further networking and development. Bio-X provides this through formal career development workshops and through the Stanford Bio-X Travel Program, where we award grants to fellows who are accepted to give talks at national and international meetings. Stanford Bio-X Fellows are provided the opportunity to present their work at all Stanford Bio-X symposia in order to share their knowledge and interact with other students, faculty, and members of the industry.

We are honored to welcome the 2024 Fellows to the Bio-X community and look forward to supporting them as they pursue their passions and expand their research careers.


Stanford Bio-X Fellows Group Photo 2023

Success at Stanford and beyond...

2004 Stanford Bio-X Bowes Fellow Amanda Malone is the Chief Operating Officer and Scientific Officer of Eupraxia Pharmaceuticals Inc., a clinical-stage biotechnology company working to optimize drug delivery for applications with significant unmet need. Eupraxia's studies suggests that their lead product candidate could represent a significant improvement over currently approved therapies for multiple debilitating conditions. In 2024, Eupraxia presented data from its eosinophilic esophagitis and osteoarthritis clinical programs at 6 conferences worldwide. Amanda also serves on the University of Victoria External Advisory Board for their Biomedical Engineering Department.

2009 Larry Yung Fellow, Stanford Bio-X SIGF Li Ma is a professor of statistical science at Duke University. Li's research group seeks to create statistical frameworks and models for complex and high-volume data sets from biomedical experiments, such as genetic sequencing and flow cytometry, to streamline and improve data analysis without compromising its integrity. In 2024, Li was elected as a Fellow of the International Society for Bayesian Analysis and a Fellow of the American Statistical Association.
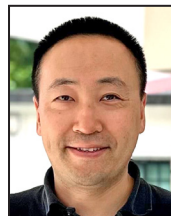
2009 Stanford Bio-X Bowes Fellow Noureddine Tayebi is the co-founder and an investor of Yassir, a multi-purpose app that offers ride-sharing, food and grocery delivery, and payment services. In 2022, Yassir raised $130M from the Series B funding, with world class investors such as BOND and Y Combinator. The Yassir app has more than 8 million users across more than 45 cities in Algeria, Morocco, Tunisia, South Africa, Senegal, Canada, and France. Prior to Yassir, Noureddine founded InSense, a start-up specializing in nano motion sensors which was bought by MojoVision. Noureddine holds 23 patents and is also an investor and advisor for the app Punchword.

2018 Stanford Bio-X Bowes Fellow Mira Moufarrej is a Stanford Science Fellow working with Kristy Red-Horse. Mira developed a novel RNA-based early screening test that can predict preeclampsia and preterm birth, which won the "Cure it!" Lemelson-MIT Student Prize in 2021. This research led to three patents and was published *Science*, as well as highlighted by the New York Times, CNN, and National Geographic, and recognized as one of the top 10 Innovations of 2019 in the MIT Technology Review. In May 2024, Mira's continued work on RNA liquid biopsies was featured in a PBS documentary, *Pathways to Invention*, which follows several inventors and asks the question "Are inventors born or made?"

2019 Stanford Bio-X Honorary Fellow Pamela Cai is an Arnold O. Beckman Postdoctoral Fellow at the University of Chicago, working with Matthew Tirrell in the Chemical Sciences. She received the American Chemical Society (ACS) Global Outstanding Student Award for Polymeric Materials Science and Engineering and was named Future Faculty in Polymeric Materials Science and Engineering by ACS. Pam is also dedicated to STEM outreach to help women and underrepresented minorities to gain access to resources they need to succeed, and has worked with Minds Matter in New York City and Future Advancers for Science and Technology at Stanford.

Graduates of the program have transitioned to promising postdoctoral positions or medical training and to successful careers in academia and industry, while others have established their own start-up companies. Seven of our alumni—Ian Chen, Adam de la Zerda, Andreas Loening, Guillem Pratx, David Myung, David Camarillo, and Xiaojing Gao—are now faculty members at Stanford University. Additionally, our fellows publish high-impact first-author journal articles, receive grants and fellowships from Fulbright, the National Institutes of Health (NIH), the National Research Service Awards (NRSA), and the National Science Foundation (NSF) among others, file patent applications, and give TEDx talks, exemplifying the importance of interdisciplinary research.

Stanford Bio-X Graduate Fellowships 2024

NAYLA ABNEY
Stanford Bio-X Bowes Fellow
Bioengineering
Mentors: Jennifer Cochran (Bioengineering) and Mark Pegram (Medicine – Oncology)
Engineering a Bispecific Receptor Decoy for Cytokine Sequestration in TNBC

Triple negative breast cancer (TNBC) is a devastating disease with limited targeted therapeutic options due to lack of characteristic receptors. Oncostatin M (OSM) and leukemia inhibitory factor (LIF) have been highlighted as cytokines whose upregulated expression in TNBC drives proliferation and metastasis. Individual inhibition of OSM and LIF has caused significant cellular and anti-tumorigenic effects in the TNBC tumor microenvironment (TME); however, simultaneous inhibition has been underexplored. Nayla will engineer a novel protein that can simultaneously bind and inhibit OSM and LIF for TNBC targeted therapy, as well as a unique reagent for probing ligand-receptor activity in the TME.

ISABELLA ARCHIBALD
Stanford Bio-X Bowes Fellow
Bioengineering
Mentors: Jennifer Brophy (Bioengineering) and Xiaojing Gao (Chemical Engineering)
### Engineering Inducible Synthetic Genetic Systems to Control Plant Development

Plant synthetic biology holds great promise for combatting the effects of climate change through bioremediation of environmental contaminants, carbon sequestration, and sustainable agriculture. However, the field currently lacks the tools necessary to adequately engineer plants. Isabella's project focuses on creating tools for inducible, tissue-specific control over gene expression in plants. She will use these tools to modulate root development and generate plants that can help elucidate the relationship between lateral root density and plant fitness across different environments. Ultimately, the tools and knowledge she generates can be applied to engineering plants for diverse sustainability applications, ensuring planet health and human health.

Stanford Bio-X Fellows Group Photo 2016

Stanford Bio-X Bowes Fellow Six Skov (see pg. 12 for research details)
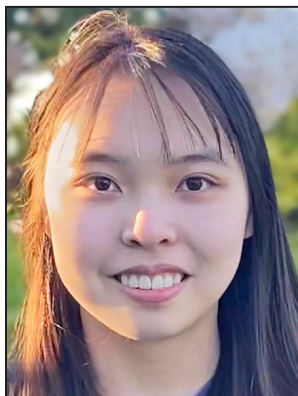
BETTY CAI
Stanford Bio-X Bowes Fellow
Materials Science & Engineering
Mentors: Sarah Heilshorn (Materials Science & Engineering) and Jon-Paul Pepper (Otolaryngology – Head & Neck Surgery)
3D Printing of Bi-Layer Nerve Conduits for the Controlled Delivery of a Hedgehog Pathway Modulator
The majority of patients receiving surgical therapy for peripheral nerve injuries do not regain full sensorimotor function. To address this critical need, Betty will fabricate 3D-printed nerve conduits with controlled release of a Hedgehog pathway modulator, which she hypothesizes will biochemically induce nerve regeneration. Her bi-layer design integrates an inner layer for drug delivery and a mechanically reinforced outer layer for surgical manipulation. Conduits will be computationally designed and fabricated using a new diffusion-based 3D printing strategy. Activation of the novel biochemical pathway will be confirmed *in vitro,* and therapeutic potential will be assessed in a mouse sciatic nerve model.

"The Bio-X fellowship gave me freedom to start a new, interdisciplinary line of research in my thesis lab at the intersection of climate, health, and biotech. This support made my journey possible beyond Stanford, as the project spun out into a company, Switch Bioworks, that is leading innovation in sustainable fertilizer development today."
—Tim Schnabel, Stanford Bio-X Bowes Fellow

JENNIFER CO
Stanford Bio-X Bowes Fellow
Chemistry
Mentors: Steven Banik (Chemistry) and Michael Bassik (Genetics)
Silent Programming: Discovery and Characterization of the Onco-Interactome with Cell-Based Interaction Sensors and CRISPR Genetic Screening

Pan-tumor genetic data has begun to annotate the onco-interactome: a rich network of tumor-driving mutations that rewire cellular programming via loss-of- and gain-of-function protein-protein interactions (PPIs). But without a universal phenotype and with limitations in cellular PPI sensing, the majority of these "onco-PPIs" have gone uncharacterized and potentially undiscovered entirely. Ratiometric sensing and advances in cell engineering techniques *in cellulo* create unique ways to study PPIs in relevant physiologies. Jennifer's project proposes the development of an interdisciplinary synthetic biology and genetics platform in order to 1) identify onco-form specific protein interaction networks; and 2) discover the cellular regulators and genetic determinants of onco-PPI formation in throughput. In doing so, the Banik lab hopes to increase our understanding of how the cell rewires in cancer and the distinct pathways in which it does so to further potential approaches in precision medicine.

MATTHEW DEJONG
Stanford Bio-X Bowes Fellow
Chemical Engineering
Mentors: Polly Fordyce (Bioengineering and Genetics) and Alexander Dunn (Chemical Engineering)
High-Throughput Microfluidic Force Spectroscopy for Engineering Protein Mechanosensors

The ability of living cells to respond to mechanical cues is a critical aspect of development, immunology, cancer metastasis, and heart disease. The present understanding of how proteins respond to force is fundamentally limited by inefficient force spectroscopy methods. Matthew will develop a method for high-throughput single-molecule force spectroscopy (HT-SMFS) and use this technique to systematically screen mutations in a recently discovered force-sensitive PDZ domain-peptide interaction to understand how mechanosensitivity is encoded in protein interactions. HT-SMFS will elucidate how proteins function under force and uncover the design rules for engineering mechanosensitivity into proteins and therapeutics.

SIPEI FU
Affymetrix Bio-X Fellow, Stanford Bio-X SIGF
Biology
Mentors: Jonathan Long (Pathology), Christopher Barnes (Biology), and Michael Fischbach (Bioengineering)
Uncovering Microbial Biosynthesis of N-acetyltaurine

The physiological role of N-acetyltaurine, a taurine metabolite, has remained largely unknown. The Long lab recently identified a mammalian enzyme responsible for N-acetyltaurine hydrolysis *in vivo* and demonstrated that elevated N-acetyltaurine levels are associated with reduced food intake and body weight in mice. In this proposal, Sipei will use a multidisciplinary approach that integrates biochemical fractionation, structural biology, and *in vivo* metabolic phenotyping to uncover microbial biosynthesis of N-acetyltaurine. When successful, it will be the first time that N-acetyltaurine biosynthesis is sufficiently addressed. This proposal will demonstrate how N-acetyltaurine, a physiologically important metabolite produced by the gut microbiome, impacts host metabolism.
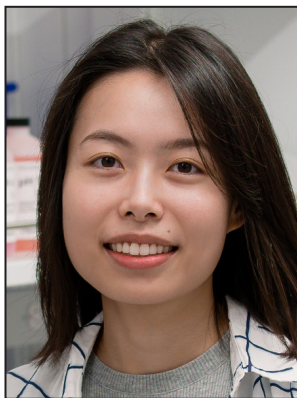
ALISA LEVIN
Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF
Computer Science
Mentors: Scott Linderman (Statistics) and Jaimie Henderson (Neurosurgery)
Cross-Brain Transfer for Intracortical Handwriting and Speech BCIs

Intracortical brain-computer interfaces (BCIs) that decode complex movements, such as handwriting and speech, require substantial training data to achieve high performance. Each new BCI user must therefore engage in extensive training data collection during the initial setup phase, which is impractical for real-world use. To reduce the data collection burden for new users, Alisa will develop two cross-brain transfer approaches that leverage the neural activity recordings of previous users. She will optimize transfer and meta learning methods offline and then compare them in online experiments, evaluating their potential for removing a key barrier to the clinical translation of BCIs.

KARA LIU
Morgridge Family SIGF Fellow, Stanford Bio-X SIGF
Computer Science
Mentors: Russ Altman (Bioengineering, Genetics, Medicine – Biomedical Informatics Research, and Biomedical Data Science), Serena Yeung-Levy (Biomedical Data Science), and Sanmi Koyejo (Computer Science)
Integrating Generative Models to Address Selection Bias and Patient Privacy in EHR Data

Machine learning (ML) models trained on sensitive personal information have the potential to drive innovation in many domains, including fairer prediction methods and novel clinical insights. However, privacy regulations heavily restrict the sharing and subsequent research of valuable healthcare data. To address this, Kara proposes a novel generative model for synthetic electronic health records (EHRs) that ensures patient privacy while accounting for selection biases that emerge during the data collection process. Her work will leverage an unbiased dataset to learn which features lead to selection biases in real-world medical datasets, such as access to health insurance. By conditioning on these features of selection using a generative diffusion model (DDPM), her project will generate realistic EHR data that corrects for selection bias and better represents the general population. Finally, Kara will train the generative method to enforce patient privacy. By integrating advanced techniques from both medicine and computer science, her research holds promise in democratizing access to EHR data, fostering widespread medical research and enabling the development of improved healthcare solutions.

Stanford Bio-X Fellows Group Photo 2014

AMRITH LOTLIKAR
Seth A. Ritch Graduate Fellow, Stanford Bio-X SIGF
Electrical Engineering
Mentors: Subhasish Mitra (Electrical Engineering and Computer Science) and E.J. Chichilnisky (Neurosurgery and Ophthalmology)
Algorithms for Efficient Calibration of Bidirectional Brain-Computer Interfaces
Brain-computer interfaces (BCIs) have the potential to augment human capabilities and treat neurological diseases by precisely targeting neurons with electrical stimulation. However, fine-tuning stimuli in these devices to target individual neurons can be extremely time-consuming due to the vast number of possible strategies. Amrith is developing smart algorithms that use feedback from recorded neural electrical activity to quickly learn how to modulate neurons with minimal testing. The algorithms will be experimentally validated using an *ex-vivo* laboratory prototype of a retinal BCI. This work will make BCI calibration more efficient, improving treatments for neurological conditions.

MARIGOLD MALINAO
Stanford Bio-X Bowes Fellow
**Materials Science & Engineering**
Mentors: Guosong Hong (Materials Science & Engineering) and Jun Ding (Neurosurgery and Neurology)
Non-invasive and Spatiotemporally Precise Chemogenetic and Pharmacological Neuromodulation with an Ultrasound Interface
Neuromodulation technologies have served as instrumental tools in discovery of fundamental functions in the brain and advancements of therapies for neurological diseases. Chemogenetic and pharmacological neuromodulation provide a precise method for targeting specific neurons in behaving animals, yet are limited by their temporal and spatial resolution. Marigold proposes a technique to enhance the temporal and spatial resolution of chemogenetic and pharmacological modulation, enabled by focused ultrasound (FUS). FUS is powerful tool in neuromodulation because it can penetrate precisely but deeply into tissue in a noninvasive manner. Marigold envisions that combining FUS with nanotransducers loaded with chemogenetic and pharmacological drugs will create a precise, noninvasive, and dynamic tool that will enable the advancement of fundamental neuroscience discoveries.

Stanford Bio-X Fellows Group Photo 2018
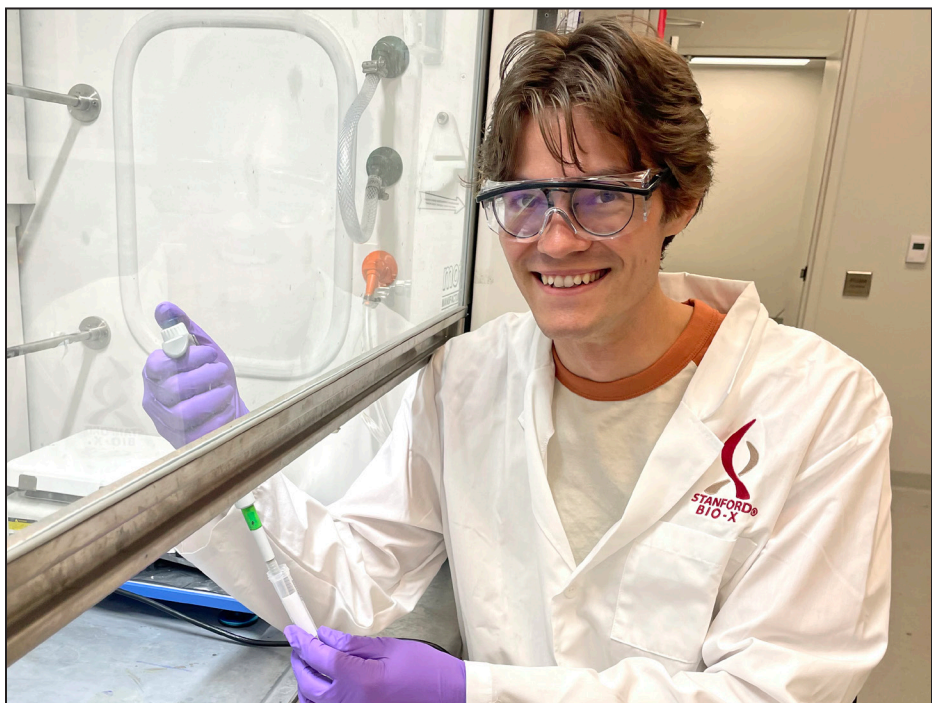
Stanford Bio-X Bowes Fellow Ethan Trepka (see pg. 14 for research details)

SHAILI MATHUR
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF
Biology
Mentors: Dmitri Petrov (Biology) and Jonas Cremer (Biology)
Cellular Decision-Making in Dynamically Changing Environments and Population-Level Consequences

Biological systems function in complex natural environments under physical constraints, interact with each other, and evolve over time to produce the tremendous natural variation that we now observe. Shaili is interested in building an integrative understanding of cellular, ecological, and evolutionary processes, which occur simultaneously at different levels of organization and temporal scales. Organisms operate in dynamically changing environments, yet much of our understanding of cellular behavior and evolution has been restricted to simpler constant environments in the lab. Shaili will use *S. cerevisiae* (baker's yeast) as a model system to study the effects of environmental change on cellular physiology and evolution. In addition to lab-strains, she will study the natural variation in behavior in changing environments in wild yeast strains. She will leverage techniques such as experimental evolution with DNA-barcoded strains, genetic manipulations, and mathematical modeling tools from cellular biology and population genetics. Understanding these fundamental questions can be useful for a range of pressing questions, from the dynamics in cancer to the impacts of a changing climate.

"Bio-X is not only an incredible resource to support interdisciplinary research across campus, but also a wonderful community of researchers to grow with."
— Mira Moufarrej, Stanford Bio-X Bowes Fellow

SANTIAGO MILLE FRAGOSO
Morgridge Family SIGF Fellow, Stanford Bio-X SIGF
Bioengineering
Mentors: Xiaojing Gao (Chemical Engineering) and Brian Hie (Chemical Engineering)
Machine Learning-Assisted Design of Novel Modular Protein Sensors
Programmable protein sensors hold promise for personalized therapies and research tools, as they could allow us to sense specific cell states/types and act in response. However, fully modular protein sensors that can detect diverse inputs and produce defined outputs have been hard to design due to challenges coupling the sensing of the protein to the regulation of a defined output. Santiago proposes designing single-chain intracellular sensors that couple protein binding to RNA-editing activity by using Machine Learning to design *de novo* protein binders and decode sequence-function relationships, enabling efficient development and screening of new functional protein sensors.


SALVADOR MONCAYO VON HASE
Morgridge Family SIGF Fellow, Stanford Bio-X SIGF
Chemistry
Mentors: Steven Banik (Chemistry), Xiaojing Gao (Chemical Engineering), and Tom Soh (Radiology, Electrical Engineering, and Bioengineering)
A Platform for Examining Small Molecule-Mediated Manipulation of RNA
The lack of tools for identifying small molecules that bind and recruit proteins to RNA has limited RNA therapeutic development. The advance of next-generation drugs that target proteins has benefited from numerous designer assays that enable the study of protein manipulations in cells; however, analogous approaches remain underdeveloped for exploring potential therapeutic mechanisms targeting RNA. Salvador is developing a platform that can detect small molecule-mediated recruitment of an effector protein to selectively modulate an RNA. This work seeks to demonstrate the potential in utilizing induced proximity to manipulate RNA, enabling translational approaches to validate mechanisms of action for therapeutic benefit.
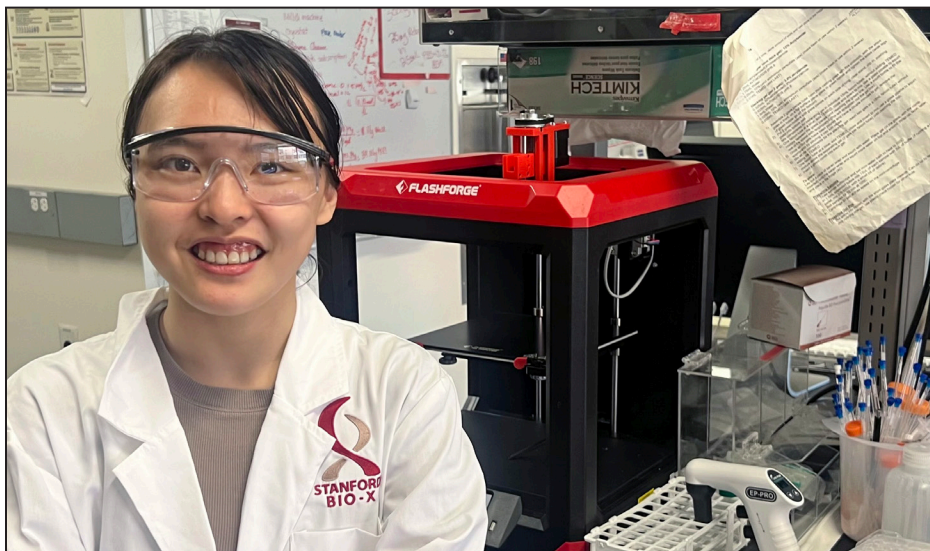
Stanford Bio-X Bowes Fellow Betty Cai (see pg. 5 for research details)

Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF Kyle Swanson
(see pg. 13 for research details)

SAMANTHA REYES
Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF
Biomedical Physics
Mentors: Michelle James (Radiology – Molecular Imaging Program at Stanford and Neurology) and Marion Buckwalter (Neurology & Neurological Sciences and Neurosurgery)
A New Translational Approach for Quantifying Innate Immune Activation in Stroke
Stroke is a leading cause of death and long-term disability. Stroke survivors face nearly double the risk of developing dementia for a decade post-stroke. Neuroinflammation exacerbates post-stroke tissue damage, with activated microglia/macrophages playing a significant role. While TSPO-PET is a gold standard for neuroinflammation imaging, it lacks cell specificity. GPR84, specific to activated microglia/macrophages, offers promise for tracking neuroinflammatory component of stroke and predicting clinical outcomes. Samantha aims to address this critical need by utilizing GPR84-PET as a tool for quantifying and tracking neuroinflammation in stroke as a method of predicting post-stroke clinical outcomes.

AUBREY ROBERTS
William and Lynda Steere Fellow, Stanford Bio-X SIGF
Epidemiology & Clinical Research
Mentors: Michael Snyder (Genetics), Jonathan Long (Pathology), and Francois Haddad (Medicine – Cardiovascular Medicine)
Optimizing Training: Physiological and Molecular Adaptations to High-Intensity Interval Training (HIIT) vs. Moderate-Intensity Continuous Training (MICT)
High-intensity interval training (HIIT) and moderate-intensity continuous training (MICT) are two popular forms of aerobic exercise. However, there is no consensus on which type is optimal for maximizing health benefits. Even less is known about the underlying molecular mechanisms. Aubrey will investigate clinical outcomes (VO2 max, body composition) and molecular changes (e.g. transcriptome, metabolome) that occur after 12 weeks of HIIT vs. MICT. The merging of clinical and multi-omic data will enable us to correlate phenotypic and molecular changes from HIIT vs. MICT, as well as explore molecular markers that are predictive of training response.

GUSTAVO SANTIAGO-REYES
Stanford Bio-X Bowes Fellow
Bioengineering
Mentors: Russell Poldrack (Psychology) and Todd Coleman (Bioengineering)
Modulation of Decision-Making Using Non-Invasive Vagus Nerve Stimulation

Gustavo's study investigates the impact of non-invasive vagus nerve stimulation (taVNS) on risky decision-making. Previous research suggests that taVNS could indirectly engage the locus coeruleus-norepinephrine (LC-NE) system. Due to LC-NE's involvement in decision making, Gustavo plans to mimic the LC's activation patterns using taVNS parameters while people perform a risky decision-making task. Pupil dilation and heart rate variability will be used as positive controls for adequate engagement of afferent vagal fibers. Finally, he will model taVNS's effects on different decision-making mechanisms, such as the changes in individual subjective value functions or the dynamics of decision processes.

SIX SKOV
Stanford Bio-X Bowes Fellow
Mechanical Engineering
Mentors: Scott Delp (Bioengineering and Mechanical Engineering), Karen Liu (Computer Science), and John Day (Neurology & Neurological Sciences and Pediatrics – Medical Genetics)
Developing in the Wild Motion Capture to Assess Treatment Effectiveness in Charcot-Marie-Tooth Patients

Charcot-Marie-Tooth syndrome (CMT), like many neurological conditions, profoundly impacts an individual's mobility and quality of life. While several assistive devices, such as exoskeletons, seek to restore mobility, their impact on activities of daily living has not been assessed due to a limited ability to measure human motion outside of the lab. Six aims to improve the accuracy of measuring human motion in the wild by embedding biological model constraints in algorithms for wearable sensors. These improved algorithms are then used to identify biomarkers for CMT progression and measure the efficacy of exoskeletons on improving mobility in those with CMT.

JIANKAI SUN
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF
Aeronautics & Astronautics
Mentors: Mac Schwager (Aeronautics & Astronautics), Scott Delp (Bioengineering and Mechanical Engineering), and Mykel Kochenderfer (Aeronautics & Astronautics)
Wearable Intelligence for Healthcare Robotics: From Brain Activity to Body Movements

Jiankai's research aims to develop efficient wearable intelligence algorithms for human-centric healthcare robotics. The process involves: 1) creating a wearable sensing system for diverse human and biometric data collection; 2) training a multimodal foundational model for wearable intelligence; 3) validating this model through simulations and uncertainty quantification; and 4) applying the model and advanced technologies in healthcare robotics, enhancing intelligent rehabilitation, and assistance. This includes continuous, personalized health monitoring for better disease diagnosis and treatment, offering innovative insights and potentially revolutionizing healthcare applications. Jiankai's proposed method integrates cutting-edge technologies, including wearables, robotics, mobile computing, and multimodal sensors.

KYLE SWANSON
Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF
Computer Science
Mentors: James Zou (Biomedical Data Science) and Joseph Wu (Medicine – Cardiovascular Medicine and Radiology)
Generative AI to Design, Synthesize, and Validate Drug Candidates
Drug discovery is an extremely slow and expensive endeavor. Generative artificial intelligence (AI) promises to accelerate drug discovery by rapidly designing drug candidates. However, the molecules designed by existing generative AI algorithms are rarely tested experimentally due to poor synthetic accessibility. Kyle proposes to take SyntheMol, a generative AI method the Zou lab developed for creating easily synthesizable compounds, and dramatically improve its AI algorithm to create SyntheMol 2.0. He will then apply SyntheMol 2.0 to design drug candidates for a cardiovascular disease to carefully validate the ability of generative AI to design safe and effective drug candidates.
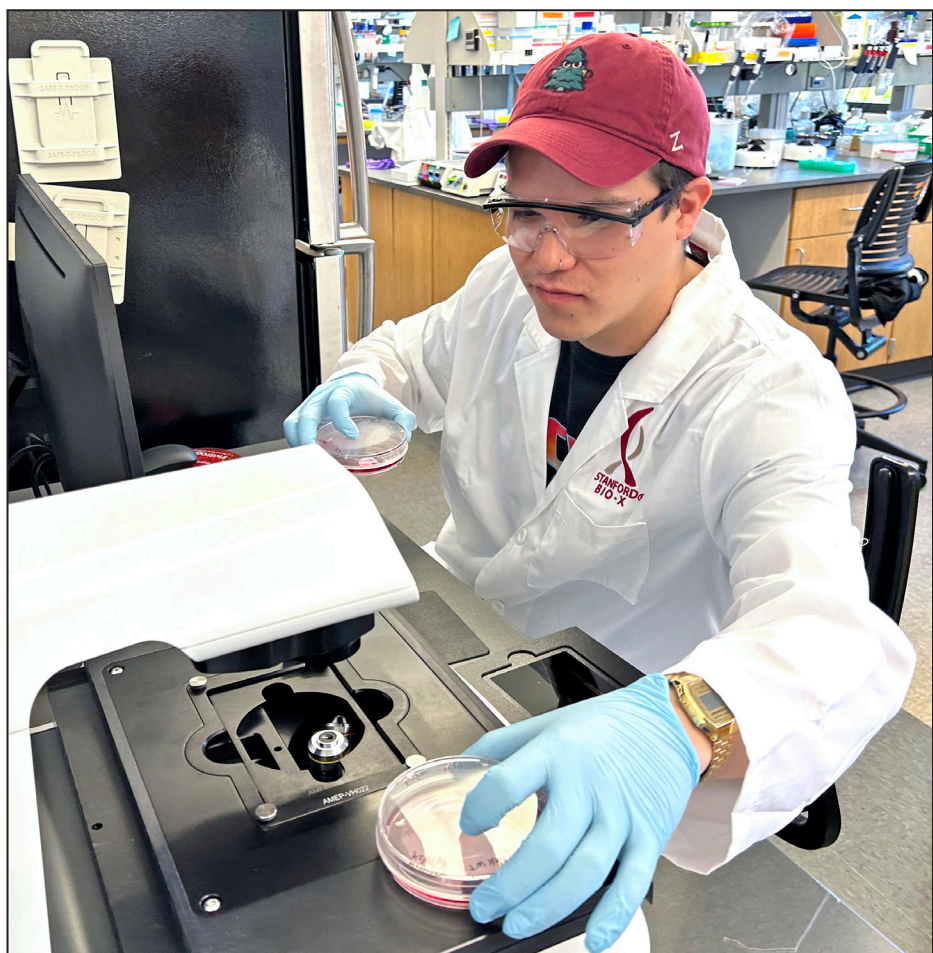
Morgridge Family SIGF Fellow, Stanford Bio-X SIGF Santiago Mille Fragoso (see pg. 10 for research details)

ETHAN TREPKA
Stanford Bio-X Bowes Fellow
Neurosciences
Mentors: Tirin Moore (Neurobiology) and Guosong Hong (Materials Science & Engineering)
Patterning the Brain with Conductive Polymers
The primary way that neurons talk to each other is by releasing chemical messages at small gaps between cells known as synapses. Another way that neurons could communicate with each other is by changing the electric field around nearby neurons. It remains unclear whether neurons use the latter method. Ethan will address this question by measuring neuronal activity while manipulating the conductivity of tissue to alter the extracellular electric field. This work has the potential to fundamentally revise our understanding of the ways that neurons communicate with each other.


MAIYA YU
Stanford Bio-X Bowes Fellow
Structural Biology
Mentors: Jeff Axelrod (Pathology), Liang Feng (Molecular & Cellular Physiology), and Alexander Dunn (Chemical Engineering)
Parsing Molecular Determinants of Asymmetry in Planar Cell Polarity Signaling
Planar cell polarity signaling establishes a left/right-type of axis in a sheet of cells. This facilitates coordinated cell movements, which underpin processes like early heart and nervous system development. The molecular mechanisms of this signaling pathway – the sequences of events that lead to functional signaling – are poorly understood. Maiya's work integrates techniques across scales to better understand the earliest stages of how cells "decide" upon a lateral direction and communicate it to their neighbors. By looking at how these proteins interact using approaches from structural biology, Maiya will be able to understand how information is signaled between cells, and can complement this with tissue-scale experiments that probe how that signal is amplified. This will enable a better understanding of both normal development and the developmental problems that are caused when this pathway is broken.
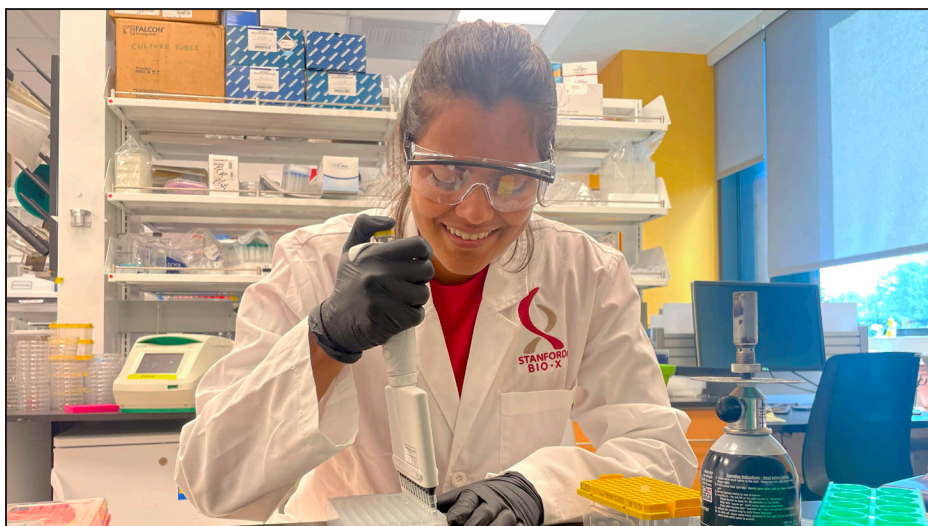
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF
Shaili Mathur (see pg. 9 for research details)

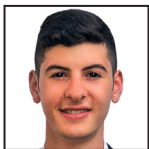# Stanford Bio-X Graduate Fellowships 2004-2023 (in alphabetical order)

CARLOS ALVARADO ACOSTA
William and Lynda Steere Fellow, Stanford Bio-X SIGF 2021
Structural Biology
Mentors: Joseph Puglisi (Structural Biology) and Zev Bryant (Bioengineering)
"Uncovering the Kinetic and Mechanochemical Regulation of Scanning"

CARLOS ALDRETE
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2023
Chemical Engineering
Mentors: Xiaojing Gao (Chemical Engineering) and Ngan Huang (Cardiothoracic Surgery)
"Small-Molecule Control of Cytokine Activity Using Human Proteases"

MEELAD AMOUZGAR
Felix and Heather Baker Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2023
Immunology
Mentors: Sean Bendall (Pathology), Robert Tibshirani (Biomedical Data Science and Statistics), Crystal Mackall (Pediatrics – Hematology/Oncology), and Markus Covert (Bioengineering)
"Integrating Experimental and Computational Methods to Understand the Link Between T Cell Fate and Cell Cycle Progression"

MANISH AYUSHMAN
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2021
Bioengineering
Mentors: Fan Yang (Bioengineering and Orthopaedic Surgery) and Ashby Morrison (Biology)
"Enabling Stem Cells to 'Zipline' in 3D: Enhancing Cartilage Regeneration Using Sliding Hydrogels with Tunable Molecular Mobility"

NAHAL BAGHERI
Stanford Bio-X Bowes Fellow 2023
Electrical Engineering
Mentors: Steven Boxer (Chemistry), Possu Huang (Bioengineering), and Thomas Markland (Chemistry)
"Electric Field Contribution to the Enzyme Activity of Trypsin"

PREKSHA BHAGCHANDANI
Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2022
Immunology
Mentors: Seung Kim (Developmental Biology), Everett Meyer (Medicine – Blood & Marrow Transplantation and Pediatrics – Stem Cell Transplantation), Judith Shizuru (Medicine – Blood & Marrow Transplantation and Pediatrics – Stem Cell Transplantation), and Kyle Loh (Developmental Biology)
"Pseudoislet Manufacturing and Hematopoietic Stem Cell Transplant to Advance Islet Transplantation"

CECELIA BROWN
Stanford Bio-X Bowes Fellow 2021
Biology
Mentors: Jan Skotheim (Biology), Julien Sage (Pediatrics – Hematology & Oncology and Genetics), and Polly Fordyce (Bioengineering and Genetics)
"Controlling Cell Division by Disrupting the Cyclin D-Rb Interaction"

SA CAI
Stanford Bio-X Bowes Fellow 2022
Materials Science & Engineering
Mentors: Stanley Qi (Bioengineering) and Guosong Hong (Materials Science & Engineering)
"Developing a Genetic Photothermal System (GPS) for Non-Invasive Neuromodulation"

CRYSTAL CHEN
Stanford Bio-X Bowes Fellow 2023
Chemical Engineering
Mentors: Stanley Qi (Bioengineering) and Katherine Ferrara (Radiology)
"Autonomous Genetic Switches for mRNA Therapy and Autoimmune Disease"

XINYI CHEN
Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2022
Bioengineering
Mentors: Stanley Qi (Bioengineering) and Wendy Fantl (Urology)
"Programmable Biomolecule Delivery Through Cell-Cell Communication"

MADELINE COOPER
Lavidge and McKinley Interdisciplinary Fellow, Stanford Bio-X SIGF 2020
**Biophysics, Medicine**
Mentors: Brad Zuchero (Neurosurgery) and Alex Dunn (Chemical Engineering)
"Myelin Loss and Regeneration by Oligodendrocyte Transformation"

BENJAMIN DOUGHTY
William and Lynda Steere Fellow, Stanford Bio-X SIGF 2023
**Chemical Engineering**
Mentors: William Greenleaf (Genetics), Jesse Engreitz (Genetics), and Polly Fordyce (Bioengineering and Genetics)
"Deciphering the Mechanisms of Non-Coding Genetic Variation in Enhancers"

YI SHIOU DUH
Stanford Bio-X Bowes Fellow 2021
Physics
Mentors: Mark Brongersma (Materials Science & Engineering), Bianxiao Cui (Chemistry), and Guosong Hong (Materials Science & Engineering)
"Scalable Electrophysiology Tool Based on Optics"
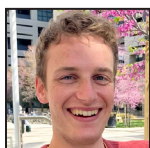
MARK FLECK
Stanford Bio-X Bowes Fellow 2023
Chemistry
Mentors: Fan Yang (Bioengineering and Orthopaedic Surgery), Michael Lim (Neurosurgery), and Ovijit Chaudhuri (Mechanical Engineering)
"A 3D Viscoelastic Model for Investigating Glioblastoma-Tumor Associated Macrophage Crosstalk"
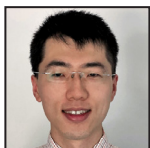
YUKUN (ALEX) HAO
Stanford Bio-X Bowes Fellow 2020
Bioengineering
Mentors: Thomas Clandinin (Neurobiology), Michael Lin (Neurobiology and Bioengineering), and Surya Ganguli (Applied Physics)
"Using Novel Imaging Tools to Dissect the Neuronal Mechanisms Underpinning Multisensory Integration"

Stanford Bio-X Bowes Fellow Nayla Abney (see pg. 4 for research details)

LINDSEY HASAK
Stanford Bio-X Fellow 2019
Education
Mentors: Bruce McCandliss (Education) and Anthony Norcia (Psychology)
"Imaging the Emergence of Letter-Sound Cortical Associations in Children within Schools"

JACOB HORNE
Stanford Bio-X Bowes Fellow 2022
Chemical Engineering
Mentors: Jian Qin (Chemical Engineering) and Daniel Jarosz (Chemical & Systems Biology and Developmental Biology)
"Unraveling the Molecular Drivers Behind LLPS and Coarsening of Biocondensates"

KEXIN HUANG
Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2023
Computer Science
Mentors: Jure Leskovec (Computer Science), Anshul Kundaje (Genetics), and Jesse Engreitz (Genetics)
"Scalable Generation of Disease-Critical Variant-to-Gene-to-Program Maps Using Graph Neural Networks"

YUAN JIA
Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2021
Chemistry
Mentors: Robert Waymouth (Chemistry) and Ronald Levy (Medicine – Oncology)
"New Synthetic Transporters for Delivery and Release of mRNA"

MINJI KANG
Rogers Family Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2022
Computer Science
Mentors: Aaron Newman (Biomedical Data Science) and Michael Clarke (Medicine – Oncology)
"Decoding Single Cell Developmental States in Health and Disease"

KARAN KATHURIA
Stanford Bio-X Bowes Fellow 2023
Immunology, Medicine
Mentors: Mark Davis (Microbiology & Immunology), Prasanna Jagannathan (Medicine – Infectious Diseases and Microbiology & Immunology), and Sarah Heilshorn (Materials Science & Engineering)
"Modeling Immune Responses to Malaria Infection and Vaccination in Human Spleen Organoids"

RENNIE KENDRICK
Tusher Family Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2023
Neurosciences
Mentors: Scott Owen (Neurosurgery), Scott Linderman (Statistics), and Laura Prolo (Neurosurgery)
"Elucidating Cellular and Molecular Mechanisms of OCD in the Human Brain"

DANIELLE KLINGER
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2023
Bioengineering
Mentors: Kristy Red-Horse (Biology), Mark Skylar-Scott (Bioengineering), Casey Gifford (Pediatrics – Cardiology), and Marlene Rabinovitch (Pediatrics – Cardiology)
"Engineering Organoid Models of Early Cardiac Developmental Stages"

RACHAEL KRETSCH
Stanford Bio-X Bowes Fellow 2021
Biophysics
Mentors: Rhiju Das (Biochemistry) and Wah Chiu (Bioengineering, Microbiology & Immunology, and Photon Science Directorate)
"Cryo-EM to Visualize Viral RNA"

DANIEL LIU
Seth A. Ritch Graduate Fellow, Stanford Bio-X SIGF 2023
Stem Cell Biology & Regenerative Medicine, Medicine
Mentors: Irving Weissman (Pathology, Developmental Biology) and Laura Prolo (Neurosurgery)
*"Characterization of the Glial Progenitor Cell in Human Health and Disease"*

ERICA LIU
Stanford Bio-X Bowes Fellow 2022
Chemistry
Mentors: Bianxiao Cui (Chemistry) and Jun Ding (Neurosurgery and Neurology & Neurological Sciences)
"Optical Detection of Action Potentials Using Electrochromic Materials"

ZHIRU LIU
Stanford Bio-X Bowes Fellow 2022
Applied Physics
Mentors: Benjamin Good (Applied Physics) and Ami Bhatt (Medicine – Hematology and Genetics)
"High-Resolution Dynamics of Bacterial Recombination Through Timescale Separation"
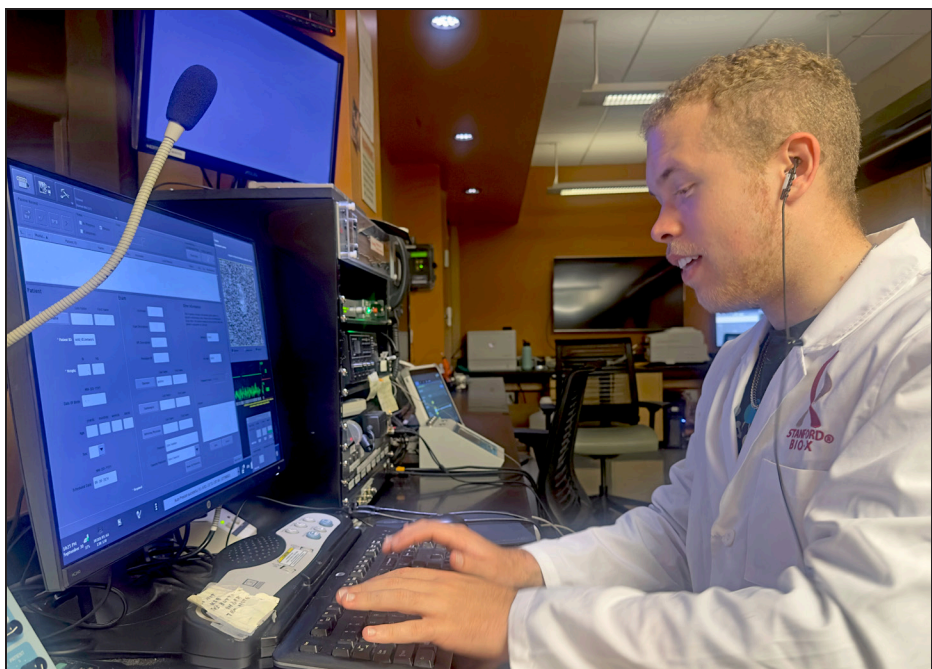
Stanford Bio-X Bowes Fellow Gustavo Santiago-Reyes (see pg. 12 for research details)

KANG YONG LOH
Stanford Bio-X Bowes Fellow 2021
Chemistry
Mentors: Karl Deisseroth (Bioengineering and Psychiatry & Behavioral Sciences), Carolyn Bertozzi (Chemistry), and Zhenan Bao (Chemical Engineering)
"Genetically Targeted Chemical Assembly and Disassembly of Functional Molecules in Intact Living Systems"
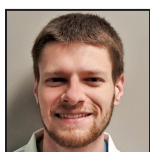
CHRISTOPHER LONG
Stanford Bio-X Fellow 2021
Materials Science & Engineering
Mentors: Sarah Heilshorn (Materials Science & Engineering) and Tony Wyss-Coray (Neurology & Neurological Sciences)
"A Novel Nonlinear Microscopy Platform for Cell-Specific Mapping of Lipid Accumulation in Alzheimer's Disease"
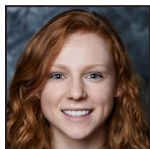
DELANEY MILLER
Stanford Bio-X Bowes Fellow 2021
Mechanical Engineering
Mentors: Steve Collins (Mechanical Engineering), Nicholas Giori (Orthopaedic Surgery), and Scott Delp (Bioengineering and Mechanical Engineering)
"Reducing Muscle Contributions to Knee Joint Loading in Individuals with OA Using a Powered Knee Exoskeleton"

STEVEN MILLER
Stanford Bio-X Bowes Fellow 2022
Chemistry
Mentors: Justin Du Bois (Chemistry), Merritt Maduke (Molecular & Cellular Physiology), Ron Dror (Computer Science), and John Huguenard (Neurology & Neurological Sciences)
"Design and Implementation of Small Molecule Tools to Study Chloride Channels and Epilepsy in the Central Nervous System"

ADI MUKUND
Tusher Family Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2021
Biophysics, Medicine
Mentors: Lacramioara Bintu (Bioengineering), Michael Bassik (Genetics), and Anshul Kundaje (Genetics and Computer Science)
"High-Throughput Characterization and Computational Modeling of Interactions Between Effector Domains in Chromatin-Mediated Gene Regulation"

GABRIELLA MUWANGA
Stanford Bio-X Fellow 2021
Neurosciences
Mentors: Vivianne Tawfik (Anesthesiology) and Raag Airan (Radiology)
"Targeted Delivery of Dexmedetomidine for Pain Relief in a Mouse Model of Complex Regional Pain Syndrome"
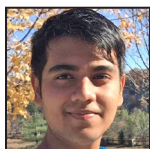

PRADNYA NARKHEDE
Mona M. Burgess Fellow, Stanford Bio-X SIGF 2023
Chemistry
Mentors: Or Gozani (Biology) and James Chen (Chemical & Systems Biology, Developmental Biology, and Chemistry)
"Cracking the eEF1A Code: Unraveling the Differential Roles and Disease Relevance of eEF1A Lysine Methylation States in Regulating Proteome-Wide Translation Dynamics"

AKSHATKUMAR NIGAM
Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2022
Computer Science
Mentors: Michael Bassik (Genetics) and Anshul Kundaje (Genetics and Computer Science)
"Development of Deep-Learning Guided Mutational Scans to Allow Fast Mapping of Sequence to Function"

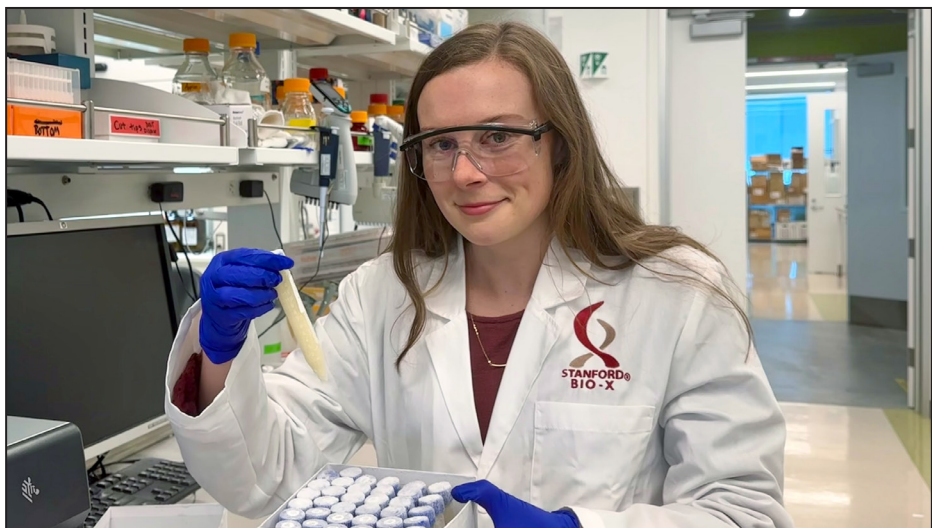**BABATUNDE OGUNLADE**
Stanford Bio-X Bowes Fellow 2023
Materials Science & Engineering
Mentors: Jennifer Dionne (Materials Science & Engineering) and Amanda Kirane (Surgery – General Surgery)
"Spatially Profiling the Melanoma Tumor Microenvironment Using Metasurface-Enhanced Raman Spectroscopy and Machine Learning"

William and Lynda Steere Fellow, Stanford Bio-X SIGF Aubrey Roberts

ANUSRI PAMPARI
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2022
Computer Science
Mentors: Anshul Kundaje (Genetics and Computer Science) and Maya M. Kasowski (Medicine and Pathology)
"Base-Resolution Deep Learning Models of Bulk and Single Cell Multi-Omic Data to Decipher the Regulatory Basis of Thyroid Cancer"

JENNIFER PARKER
Stanford Bio-X Bowes and Anonymous Donor Fellow 2023
Stem Cell Biology & Regenerative Medicine
Mentors: Michael Longaker (Surgery) and Eric Appel (Materials Science & Engineering)
"Targeting Engrailed-1 Positive Fibroblasts and Mechanotransduction Signaling in Foreign Body Response"

DIVYA RAJASEKHARAN
Stanford Bio-X Bowes and Anonymous Donor Fellow 2023
Mechanical Engineering
Mentors: Leanne Williams (Psychiatry & Behavioral Sciences), Ellen Kuhl (Mechanical Engineering), and Laura Hack (Psychiatry & Behavioral Sciences)
"An Integrated Continuum Finite Element & Network Neuroscience Method for Understanding Mechanisms of Transcranial Magnetic Stimulation"

KALANI RATNASIRI
City Hill Foundation Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2022
Immunology
Mentors: Catherine Blish (Medicine – Infectious Diseases) and Purvesh Khatri (Medicine and Biomedical Data Science)
*"Elucidating Conserved and Targetable Severity-Associated Monocyte Responses in Acute RNA Viral Disease"*

FREDRIK SAMDAL SOLBERG
Pierce Family Goldman Sachs Fellow, Stanford Bio-X SIGF 2022
Mechanical Engineering
Mentors: Mark Skylar-Scott (Bioengineering), Allison Okamura (Mechanical Engineering), and Michael Ma (Cardiothoracic Surgery)
"In Situ In Vivo 3D Bioprinting"
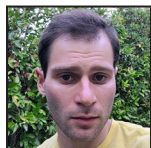
JOSHUA SAMPSON
Stanford Bio-X Bowes Fellow 2021
Bioengineering
Mentors: Mark Skylar-Scott (Bioengineering), Steven Boxer (Chemistry), and Michael Ma (Cardiothoracic Surgery)
"Optical Coagulation for 3D Bioprinting in vitro and Directed Hemostasis in vivo"

JULIA SCHAEPE
Colella Family Fellow, Stanford Bio-X SIGF 2023
Bioengineering
Mentors: William Greenleaf (Genetics) and Lacramioara Bintu (Bioengineering)
"Dissecting Dynamics of Gene Activation by Human Transcription Factors with Single Molecule Footprinting"
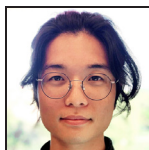
SOPHIA SHI
Stanford Bio-X Bowes Fellow 2021
Chemistry
Mentors: Tony Wyss-Coray (Neurology & Neurological Sciences) and Carolyn Bertozzi (Chemistry)
"Decoding the Blood-Brain Barrier Glycocalyx in Aging and Neurodegenerative Disease"

Jun Ho Song
Stanford Bio-X Bowes Fellow 2023
Biology
Mentors: Liqun Luo (Biology) and Scott Linderman (Statistics)
"Deconstructing the Serotonin System: Projectomes, Transcriptomes, and Animal Behavior"

Jon Stingel
Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF 2020
Mechanical Engineering
Mentors: Scott Delp (Bioengineering and Mechanical Engineering) and Maarten Lansberg (Neurology & Neurological Sciences)
"Elucidating Energy Expenditure During Human Movement"

Jiawei Sun
Rosenberg Ach Family Fellow, Stanford Bio-X SIGF 2022
Bioengineering
Mentors: Kerwyn Casey Huang (Bioengineering and Microbiology & Immunology), Denise Monack (Microbiology & Immunology), and Naima Sharaf (Biology)
"Exploiting the Physical Properties of the Bacterial Cell Envelope to Combat Antibiotic Resistance"

Peter Suzuki
Stanford Bio-X Bowes Fellow 2021
Bioengineering
Mentors: Polly Fordyce (Bioengineering and Genetics) and Lacramioara Bintu (Bioengineering)
"Understanding Sequence-Function Relationships in Human Transcription Factors by Probing Cofactor Binding in vitro *and Gene Regulation* in vivo*"*

Michelle Tai
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2023
Bioengineering
Mentors: Fan Yang (Bioengineering and Orthopaedic Surgery), Christina Curtis (Medicine – Oncology, Genetics, and Biomedical Data Science), and Joy Wu (Medicine – Endocrinology)
"Engineering a 3D Model for Mimicking Breast Cancer Metastasis at the Bone Tissue Interface"

Abby Thurm
Stanford Bio-X Bowes Fellow 2023
Biophysics, Medicine
Mentors: Lacramioara Bintu (Bioengineering), Daniel Herschlag (Biochemistry), and William Greenleaf (Genetics)
"High-Throughput Measurements of RNA-Mediated Regulation of Gene Expression"

Raeline Valbuena
Stanford Bio-X Bowes Fellow 2022
Genetics
Mentors: Michael Bassik (Genetics), Lacramioara Bintu (Bioengineering), and Anshul Kundaje (Genetics and Computer Science)
"Designing Transcriptional Repressor Domains Using Large-Scale Mutational Scans and Deep Learning Models"

Ramandeep Vilkhu
Stanford Bio-X Bowes Fellow 2021
Electrical Engineering
Mentors: Subhasish Mitra (Electrical Engineering and Computer Science) and E.J. Chichilnisky (Neurosurgery and Ophthalmology)
"Optimization and Biophysical Modeling of Electrical Stimulation Strategies for Brain-Computer Interfaces to Enhance Stimulation at Cellular-Resolution"
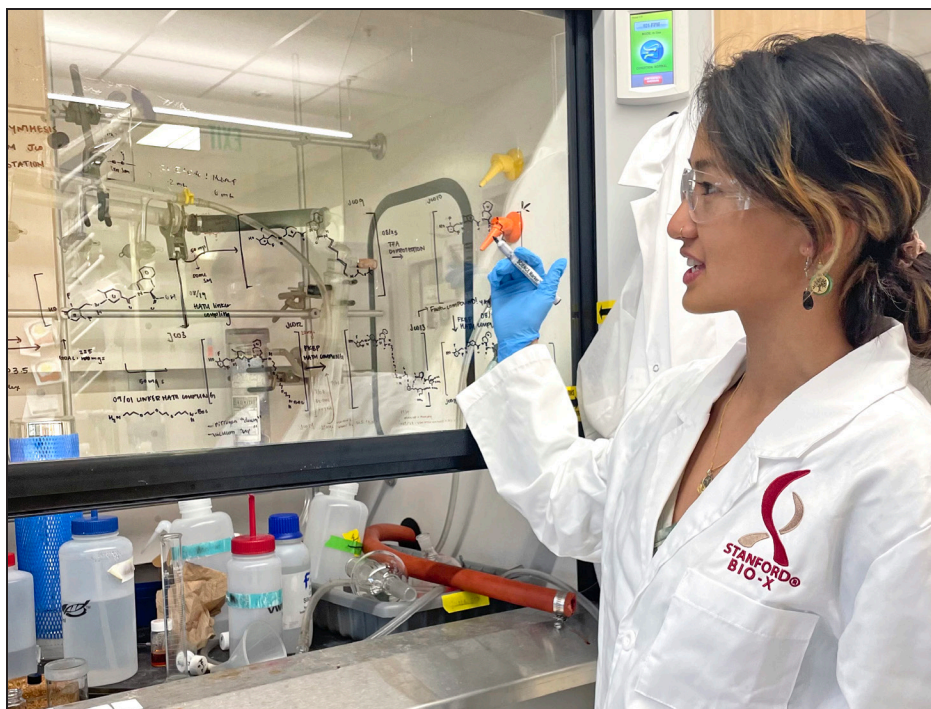
Stanford Bio-X Bowes Fellow Jennifer Co (see pg. 6 for research details)

CASSANDRA VILLICANA
Stanford Bio-X Bowes Fellow 2022
Bioengineering
Mentors: Fan Yang (Orthopaedic Surgery and Bioengineering) and Stuart Goodman (Orthopaedic Surgery)
"Tissue Extracellular Matrix-Derived Microribbon Scaffolds to Enhance Bone Regeneration Through Immunomodulation"

PRANAV VYAS
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2019
Bioengineering
Mentors: Manu Prakash (Bioengineering) and Christopher Lowe (Biology)
"Cells to Organism: Morphogenesis, Repair and Size-Control as Emergent Properties of Cell-Scale Interactions in an Early Diverging Metazoan Trichoplax adhaerens"

AUSTIN WANG
Stanford Bio-X Bowes Fellow 2023
Chemical Engineering
Mentors: Anshul Kundaje (Genetics) and Kristy Red-Horse (Biology)
"Characterizing the Species-Specific Genetic Basis of Cardiac Development with Deep Learning Models of Regulatory Function"
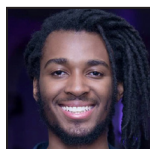
JAVIER WEDDINGTON
Stanford Bio-X Bowes Fellow 2022
Neurosciences
Mentors: Stephen Baccus (Neurobiology) and Nick Haber (Education and Computer Science)
"Rapid Perceptual Learning in Rewarded Tasks – The Efficient Learning Hypothesis"

JONATHAN WEISS
Stanford Bio-X Fellow 2021
Bioengineering
Mentors: Mark Skylar-Scott (Bioengineering) and Joseph Woo (Cardiothoracic Surgery)
"Organ-Scale Biofabrication: 3D Bioprinting of Engineered Pluripotent Stem Cells to Form a Mature Human Ventricle"

JOHN WEN
Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2019
Neurosciences
Mentors: Lisa Giocomo (Neurobiology) and Thomas Clandinin (Neurobiology)
"Bridging the Computational Gap between Vision and Navigation"

ERIC WU
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2022
Electrical Engineering
Mentors: James Zou (Biomedical Data Science) and Daniel Ho (Law and Political Science)
"How Should We Evaluate and Regulate Medical AI Algorithms?"

TING-HSUAN (TIMOTHY) WU
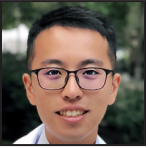**Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2022**
Biochemistry, Medicine
Mentors: Mark Krasnow (Biochemistry), Peter S. Kim (Biochemistry), and Catherine Blish (Medicine – Infectious Diseases)
"Dissecting Human Respiratory Disease Initiation and Therapeutic Efficacy at Single Cell Resolution"

YAN WU
Stanford Bio-X Bowes Fellow 2022
Bioengineering
Mentors: Michael Lin (Neurobiology and Bioengineering), Nathanael Gray (Chemical & Systems Biology), and Michelle Monje (Neurology & Neurological Sciences)
"Non-Invasive Bioluminescent Imaging for In Vivo Visualization of the Efficacy of Kinase-Targeting Drugs"

PUMIAO YAN
Seth A. Ritch Graduate Fellow, Stanford Bio-X SIGF 2020
Electrical Engineering
Mentors: Boris Murmann (Electrical Engineering) and Tsachy Weissman (Electrical Engineering)
"Efficient Hardware Implementations for Compressive Acquisition of Neural Action Potential"
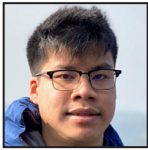
JONATHAN YANG
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2022
Chemistry
Mentors: Carolyn Bertozzi (Chemistry) and Alice Ting (Genetics and Biology)
"Cell Delivered Targeting Chimeras for Precision Oncology"

THEO YANG
Lavidge and McKinley Interdisciplinary Fellow, Stanford Bio-X SIGF 2023
Chemical Engineering
Mentors: Daniel Jarosz (Chemical & Systems Biology and Developmental Biology) and Jian Qin (Chemical Engineering)
"Dissecting the Molecular Grammar of Prion Material States"

Where are they now?

317 of our Stanford Bio-X Fellows have graduated and gone on to utilize what they have learned in the corporate, academic, and governmental sectors...

Amin Aalipour (Stanford Bio-X Fellow 2017) is a Clinical Fellow in Hematology & Oncology at Dana-Farber Cancer Institute.

Namiko Abe (Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF 2006) is the Associate Director of Medical Communications at Exelixis.

Shelley Ackerman (Stanford Bio-X Bowes Fellow 2014) is a senior director and program team lead at Bolt Biotherapeutics, a start-up with compelling technology from Stanford that has demonstrated complete cures in numerous cancer models.

Eliza Adams (Stanford Bio-X Bowes Fellow 2017) is Chief of Staff, VP Corporate Strategy, at Clarify Health.

Afsheen Afshar (Stanford Bio-X Bowes Fellow 2005) is the founder and a Managing Member of Pilot Wave Holdings, the first investment firm in the world dedicated to bringing world-class technologies to small businesses.

Atish Agarwala (Stanford Bio-X Bowes Fellow 2015) is a research scientist at Google, where he is studying the connections between physics, evolution, and machine learning.

Rachel Agoglia (Stanford Bio-X Honorary Fellow 2016) is a Senior Field Application and Bioinformatics Scientist at Mission Bio.

Ron Alfa (Stanford Bio-X Bowes Fellow 2011) is the CEO and co-founder of Noetik, an AI-native biotechnology company. Their mission is to leverage advanced machine learning methods to discover and develop cancer immunotherapies.

Laura Amaya Hernandez (Stanford Bio-X Bowes Fellow 2020) is a postdoctoral fellow at Caltech working in Dr. Magdalena Zernicka-Goetz's laboratory.

Katherine Amberg-Johnson (William and Lynda Steere Fellow, Stanford Bio-X SIGF 2016) is a principal scientist at Schrodinger, a biotechnology company that uses a physics-based computational platform to accelerate drug development.
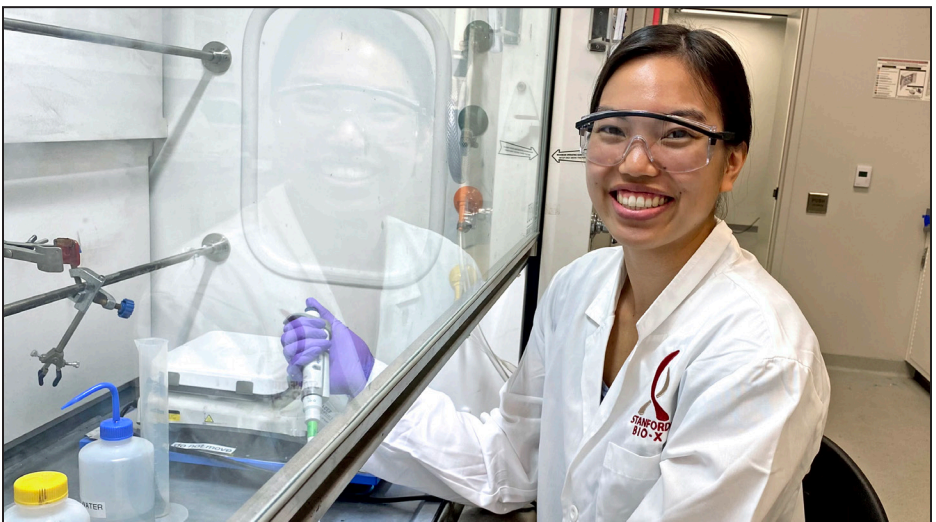
Stanford Bio-X Bowes Fellow Marigold Malinao (see pg. 8 for research details)

Suhaas Anbazhakan (Stanford Bio-X Bowes Fellow 2018) is a data scientist at Physcade, a med-tech startup.

Andrés Aranda-Díaz (Stanford Bio-X Bowes Fellow 2016) is a Researcher with the EPPIcenter at UCSF. Andrés is empowering Sub-Saharan African scientists and public health personnel to conduct malaria genomic epidemiology in the continent.

Edith Arnold (Stanford Bio-X Bowes Fellow 2006) is working at Apple Inc. as a Senior Engineering Manager, leading a biomechanics research team supporting design of wearable products.

Georgios Asimenos (Stanford Bio-X Bowes Fellow 2005) is the Chief Technology Officer at DNAnexus, a Stanford-spawned startup company which sits at the intersection of two of the most ground-breaking fields: cloud computing and genomics.

Oguzhan Atay (Colella Family Fellow, Stanford Bio-X SIGF 2014) is the co-founder and CEO of BillionToOne, a next-generation molecular diagnostics company. BillionToOne's proprietary Quantitative Counting Templates (QCT) platform unlocks transformative improvements in prenatal screening and liquid biopsy for cancers.

Lawrence Bai (Stanford Bio-X Bowes Fellow 2019) is a Life Sciences Consultant at L.E.K. Consulting, where he has worked on strategy and due diligence projects across the life sciences industry, including biopharma, pharma services, diagnostics, and medical devices.

Aakash Basu (Stanford Bio-X Bowes Fellow 2009) is an Assistant Professor in the Department of Biosciences at Durham University.

Eva Gabriela Baylon (Stanford Bio-X Skippy Frank Fellow 2014) is a Staff Systems Engineer with Abbott.

Daniel Bechstein (Stanford Bio-X Bowes Fellow 2012) is a Sensor Architect at Apple, Inc.
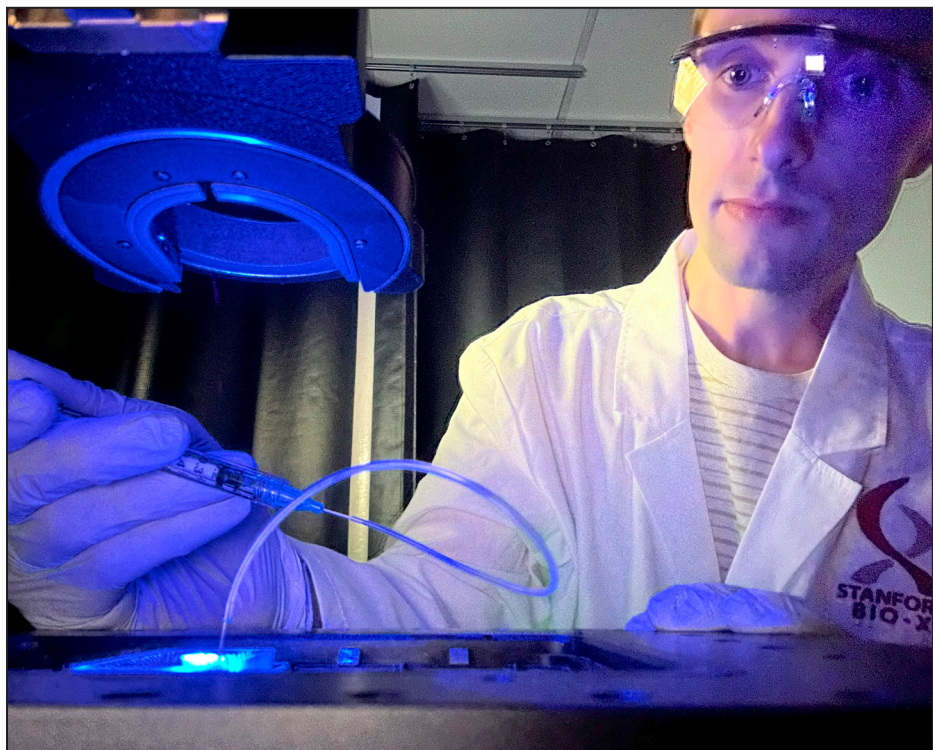
Stanford Bio-X Bowes Fellow Matthew DeJong (see pg. 6 for research details)

Kaisha Benjamin (Stanford Bio-X Bowes Fellow 2019) is an ASM Medical and Public Health Microbiology CPEP fellow at UNC Health in Chapel Hill, NC.

Salil Bhate (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2016) is a postdoctoral researcher at the Broad Institute of Harvard and MIT, working on scaling up the machine learning and conceptual tools for analyzing tissues that he developed in his thesis.

Elsa Birch (Stanford Bio-X Bowes Fellow 2009) is a software engineer at Promoted.ai working in data quality and explainable AI.

Johannes Birgmeier (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2017) is working for Citadel Securities in Zurich.

Jennifer Brady (Stanford Bio-X Skippy Frank Fellow 2010) is Director of Biology at Variant Bio, overseeing the progression of multiple therapeutic programs based on human genetics and an ethics-minded approach to human genetic research.

Relly Brandman (Stanford Bio-X Bowes Fellow 2004) is a project lead at GoogleX.

Matthew Bull (Stanford Bio-X Honorary Fellow 2015) is a fellow in the Allen Institute's neurosciences program.

Pamela Cai (Stanford Bio-X Honorary Fellow 2019) is an Arnold O. Beckman Postdoctoral Fellow at the University of Chicago, working with Matthew Tirrell.

David Camarillo (Stanford Bio-X Bowes Fellow 2004) is an Associate Professor in the Department of Bioengineering at Stanford University.

Shengya Cao (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2013) is a part of the Inceptive team in Palo Alto.

Chien-Yi Chang (Stanford Bio-X Bowes Fellow 2020) recently graduated.

Je-Rui (Ray) Chang (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2021) is a postdoc in Professor Juan Santiago's lab at Stanford. He will be developing a microfluidics device for low-cost medical diagnostics.

Mindy Chang (Stanford Bio-X Bowes Fellow 2005) is exploring the intersection of art and health.

Binbin Chen (Stanford Bio-X Bowes Fellow 2018) is the co-founder and CEO of Vcreate, Inc. focusing on computationally linking T-cell receptors and antigen targets for immunotherapies.

Elizabeth Chen (Rogers Family Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2013) is a computational scientist in the immunology-dermatology department at Johnson & Johnson (J&J) in San Diego, working on analyzing sequencing datasets of patients enrolled in J&J's clinical trials.

Ian Chen (Stanford Bio-X Bowes Fellow 2006) is an Assistant Professor of Medicine and Radiology at Stanford University.

Jin Chen (Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2012) is a Principal Investigator at Altos Labs.

Shi-An Chen (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2018) is a scientist at Altos Labs, a start-up working on cellular rejuvenation.

"The Bio-X fellowship supported my interdisciplinary graduate research where I collaborated with and learned from experts in both neurobiology and engineering and from the molecular to the organismal level. Bio-X fostered a community of fellow researchers which provided many opportunities to communicate with others who also pursued interdisciplinary research... The interdisciplinary skills I honed have been invaluable in my current role at BillionToOne."
— Patrick Ye, Stanford Bio-X Bowes Fellow

Junhong Choi (Stanford Bio-X Bowes Fellow 2015) is an Assistant Member of Memorial Sloan-Kettering Cancer Center.

Fang-Chieh Chou (Stanford Bio-X Fellow 2012) is a software engineer at DoorDash.

Vincent Chu (Stanford Bio-X Pfizer Fellow 2005) is the CTO and co-founder of HomeVision.

Virginia Chu (Stanford Bio-X Bowes Fellow 2005) is an Assistant Professor of Occupational Therapy at Virginia Commonwealth University.

Zonghe Chua (Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2020) is an Assistant Professor at Case Western Reserve University in the Department of Electrical, Computer & Systems Engineering.

Kelsey Clark (Stanford Bio-X Bowes Fellow 2007) is an Instructor at Montana State University.

Roshni Cooper (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2012) is a staff software engineer/technical lead manager at Waymo, Alphabet's self-driving car company. She is developing machine learning and computer vision techniques to enable cars to perceive the world around them.

Robert Coukos (Stanford Bio-X Skippy Frank Fellow 2019) is a postdoctoral fellow in the lab of Professor Dimitri Krainc, MD, PhD, Chair of the Department of the Neurology in the Feinberg School of Medicine at Northwestern University.

Jing-yu Cui (Stanford Bio-X Bowes Fellow 2011) is working at Google as a software engineer.

Kiara Cui (Stanford Bio-X Bowes Fellow 2018) is a research scientist in Formulation and Process Development at Gilead Sciences, a biopharmaceutical company focusing on the development of therapeutics for HIV, viral hepatitis, emerging viruses, oncology, and inflammatory diseases.

Rebecca Culver (Stanford Bio-X Honorary Fellow 2019) is a scientist at Curve Biosciences.

Anna Cunningham (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2015) is a software engineer at Freenome, a mid-size biotech startup developing a blood-based assay for early detection of colorectal cancer.

Sanjay Dastoor (Stanford Bio-X Bowes Fellow 2006) recently sold Skip, a company he co-founded that designs a network of lightweight electric vehicles. He is currently working on a new project.

Olivia de Goede (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2019) is a data scientist at AbCellera.

Adam de la Zerda (Stanford Bio-X Skippy Frank Fellow 2008) is an Associate Professor of Structural Biology at Stanford University and the founder and CEO of Visby Medical.

Adi de la Zerda (Stanford Bio-X Fellow 2013) is doing technical project management and business development at Applied Materials. Previously, she was a lecturer of materials science and engineering at Stanford.

Stanford Bio-X Fellows Group Photo 2012
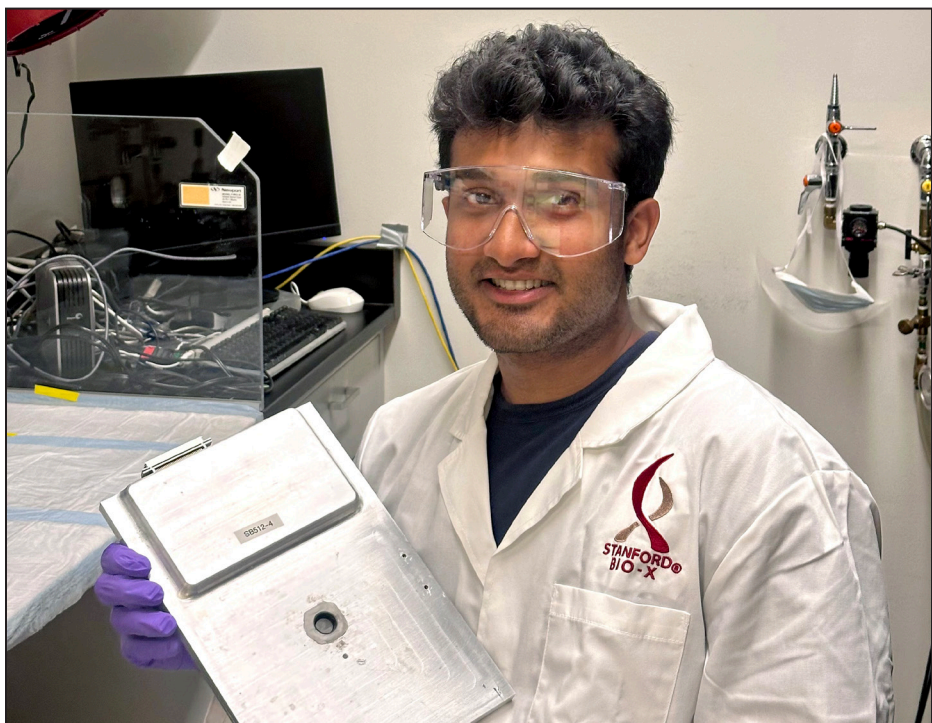
Seth A. Ritch Graduate Fellow, Stanford Bio-X SIGF Amrith Lotlikar (see pg. 8 for research details)

Ana Sofia de Olazarra (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2021) is a Bioinformatics Scientist at Tempus Labs, a company focused on bringing the power of data and artificial intelligence to healthcare.

Christopher Dembia (Stanford Bio-X Bowes Fellow 2016) is a Vehicle Dynamics Simulation Engineer at Zoox.

Sarah Denny (Stanford Bio-X Honorary Fellow 2013) is a director with Scribe Therapeutics. She leads the Molecular Engineering team to develop new CRISPR tools for therapeutic applications.

Darrel Deo (Mona M. Burgess Fellow, Stanford Bio-X SIGF 2016) is a senior clinical scientist at Synchron.

Mario Diaz de la Rosa (Stanford Bio-X Bowes Fellow 2008) is a senior data scientist at Deloitte Consulting.

Rebecca DiMarco (Stanford Bio-X Bowes Fellow 2009) is working on earning a master's degree in counseling.

Sheng Ding (Stanford Bio-X Bowes Fellow 2007) works at Gilead, one of the world's leaders in the biopharma industry, as a Director of Protein Therapeutics.

Sarah Divel (Stanford Bio-X Bowes Fellow 2016) is a Senior Innovation Engineer at RapidAI.

Melody Dong (Stanford Bio-X Honorary Fellow 2017) is a Clinical Scientist at Abbott.

Graham Dow (Stanford Bio-X Bowes Fellow 2009) is a group leader at NIAB (National Institute of Agricultural Botany) in Cambridge, UK.

Michelle Drews (Stanford Bio-X Fellow 2021) is a fourth-year medical student at Stanford School of Medicine and will be applying for residency in Child Neurology.

Haotian Du (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2021) will start a new position as a scientist at Generate Biomedicine, a start-up that works on applying protein generative modeling to develop novel therapeutic solutions, upon graduating in the Fall of 2024.

Karen Dubbin (Stanford Bio-X Bowes Fellow 2013) is a Principal Engineer at Stryker.

Remy Durand (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2010) most recently served as the Chief Business Officer at Alpine Immune Sciences (NASDAQ:ALPN), which was acquired by Vertex Pharmaceuticals (NASDAQ:VRTX) for $4.9 billion in May of 2024.

Stephan Eismann (Stanford Bio-X Bowes Fellow 2019) is leading the machine learning team at Atomic AI, Inc. located in South San Francisco.

Anna Elleman (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2018) is a postdoctoral fellow in the molecular and cell biology department at the University of California, Berkeley.

Christopher Emig (Stanford Bio-X Bowes Fellow 2011) is the co-founder and CEO of Augmenta Bioworks (as of 2024 a Vaxanix Ltd. subsidiary), and a scientific advisor to Chimera Bio and Cyto-Kind, Inc.

Nir Even-Chen (Stanford Bio-X Bowes Fellow 2015) is a Director of Head of Brain Interfaces Applications at Neuralink.

Yuhang Fan (Enlight Foundation Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2020) is an Assistant Professor in the Department of Biochemistry and Molecular Genetics at the University of Illinois Chicago (UIC).

Corey Fernandez (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2019) is an Assistant Professor of Psychology at Nevada State University.

Jonas Fowler (Stanford Bio-X Honorary Fellow 2019) is a Scientist II at a stealth biotech start-up developing targeted gene therapies in Berkeley, CA.

Gabriela Fragiadakis (Stanford Bio-X Bowes Fellow 2013) is an Assistant Professor at the University of California, San Francisco in Systems Immunology and Data Science.

Limor Freifeld (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2010) is a Senior Lecturer (a position equivalent to assistant professor) at the Faculty of Biomedical Engineering at the Technion, Israel Institute of Technology.

Stephen Fried (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2012) is an Assistant Professor at Johns Hopkins University in the Department of Chemistry.

Julia Fukuyama (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2014) is an Assistant Professor in the Department of Statistics at Indiana University.

Xiaojing Gao (Enlight Foundation Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2012) is an Assistant Professor of Chemical Engineering at Stanford.

Pablo Garcia-Nieto (Stanford Bio-X Bowes Fellow 2017) is working for the Chan Zuckerberg Initiative as a product manager and lead computational biologist.

Courtney Gegg (Stanford Bio-X Bowes Fellow 2016) is an engagement manager at Headland Strategy Group.

Tony Ginart (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2019) is currently a lead scientist at Salesforce AI Research, developing generative AI for the enterprise.

David R. Glass (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2018) is a postdoc in the Fred Hutchinson Cancer Center.

David S. Glass (Stanford Bio-X Bowes Fellow 2013) recently completed a postdoc in Uri Alon's lab at the Weizmann Institute with a Zuckerman Postdoctoral Fellowship.
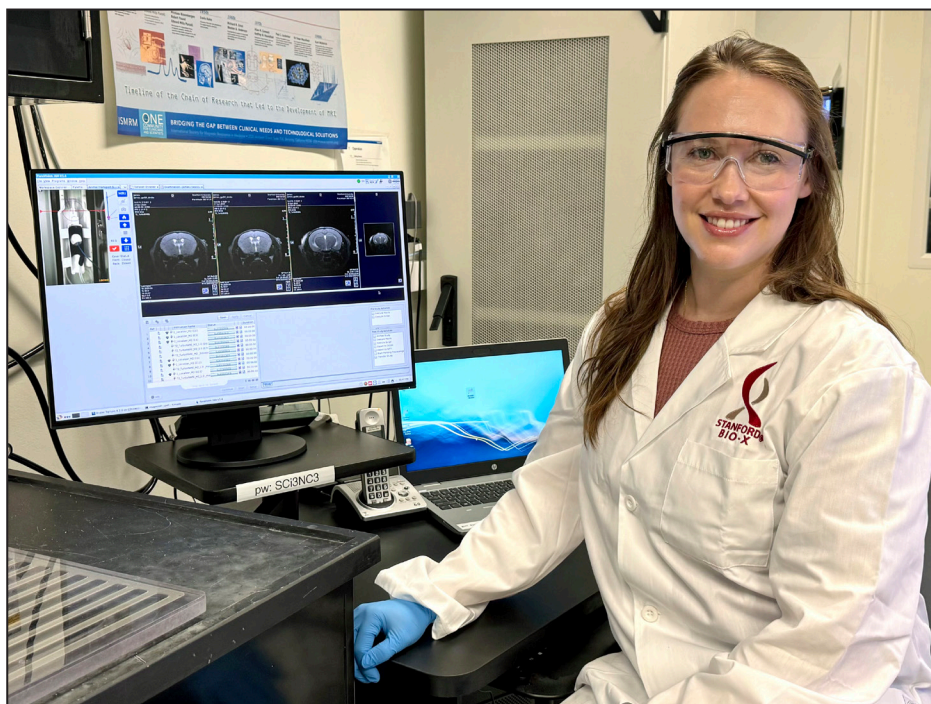
William and Lynda Steere Fellow, Stanford Bio-X SIGF Samantha Reyes (see pg. 11 for research details)

Caleb Glassman (Stanford Bio-X Honorary Fellow 2017) is a postdoc in Steve Elledge's lab at Harvard Medical School.

Emma del Carmen Gonzalez Gonzalez (Stanford Bio-X Bowes Fellow 2018) is a Senior Research Specialist at Dow.

Peyton Greenside (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2015) is the co-founder and CSO of BigHat Biosciences.

Viviana Gradinaru (Colella Family Fellow, Stanford Bio-X SIGF 2008) is a Professor of Neuroscience and Biological Engineering at the California Institute of Technology (Caltech). She is also the director of the Center for Molecular and Cellular Neuroscience and director of the Richard N. Merkin Institute for Translational Research.

Alex Grant (Stanford Bio-X Bowes Fellow 2010) is the VP of Engineering at the startup Ceribell, Inc.

Adam Grossman (Stanford Bio-X Bowes Fellow 2004) is a co-founder and SVP of Emerging Risk at Praedicat, Inc., the world's leading liability emerging risk analytics company for casualty insurers and industrial companies. They help companies identify, model, and manage current, emerging, and emergent liability risks, allowing them to adopt new approaches to casualty risks, and to translate them into actionable business opportunities for sustainable, profitable growth.

Gunsagar Gulati (Stanford Bio-X Bowes Fellow 2018) is a clinical fellow in hematology/oncology at Dana-Farber Cancer Institute.

Lisa Gunaydin (Stanford Bio-X Bowes Fellow 2008) is an Associate Marriage and Family Therapist in a group private practice setting as well as an Adjunct Professor in the Counseling Psychology departments at both Palo Alto University and Santa Clara University.

Amalia Hadjitheodorou (Stanford Bio-X Bowes Fellow 2014) is a Project Leader with the Boston Consulting Group doing Healthcare/Ops work.

Mary Hall (Stanford Bio-X Bowes Fellow 2018) is an associate in the biomechanics practice at Exponent.

Shuo Han (Stanford Bio-X Bowes Fellow 2017) is a Principal Investigator at the Shanghai Institute of Biochemistry and Cell Biology.

Kevin Hart (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2015) is a Clinical Biomarker Lead (Oncology) at IGM Biosciences.

Fidel Hernandez (Stanford Bio-X Honorary Fellow 2013) is a Director of Portfolio Operations at Elliott Investment Management.

Jennifer Hicks (Stanford Bio-X Bowes Fellow 2007) is Executive Director of the Wu Tsai Human Performance Alliance at Stanford, with a focus on collaborative research projects and programs to advance our understanding of the biological principles underlying human performance. Dr. Hicks also serves as the Director of Research for the Mobilize Center, an NIH Biomedical Technology Resource Center at Stanford University and the Restore Center, an NIH-funded center that brings state-of-the-art engineering tools to rehabilitation scientists.

Tyler Hillman (Stanford Bio-X Bowes Fellow 2008) is an Assistant Professor of Gynecologic Oncology & Reproductive Medicine at the University of Texas MD Anderson Cancer Center. His lab focuses on the genetics of rare gynecologic malignancies.

Nina Horowitz (Mona M. Burgess Fellow, Stanford Bio-X SIGF 2019) is the Head of Research – NK Therapeutics at ImmuneBridge, a start-up with the unique capacity to expand stem cells from cord blood for inexpensive manufacturing of cancer immunotherapies.

Timothy Horton (City Hill Foundation Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2017) is a postdoctoral fellow in the radiation oncology department at the University of Miami Miller School of Medicine.

Zahid Hossain (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2014) is a perception systems architect at Meta.

Morgridge Family SIGF Fellow, Stanford Bio-X SIGF Salvador Moncayo Von Hase (see pg. 10 for research details)

Brian Hsueh (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2015) is a resident physician in neurosurgery at the Massachusetts General Hospital.

Eva Huang (Stanford Bio-X Bowes Fellow 2014) is a Principal Scientist at Bristol Myers Squibb.

Jacob Hughey (Stanford Bio-X Bowes Fellow 2007) is an Adjunct Assistant Professor of Biomedical Informatics and Biological Sciences at Vanderbilt University. He works as a Core Team Member of the Agency Fund, a new philanthropic initiative whose mission is to invest in ideas and organizations that expand human agency.

Sarah Hull (Rogers Family Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2019) is a research scientist at Gilead Sciences.

Haisam Islam (Stanford Bio-X Bowes Fellow 2010) is a software development engineer at Amazon.

Johnny Israeli (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2016) is an engineering lead at NVIDIA.

Ivan Ivanov (Tusher Family Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2015) is a senior research and development engineer at the Chan Zuckerberg Biohub.

Kwang Eun Jang (Stanford Bio-X Bowes Fellow 2014) is a postdoctoral fellow in the MRI lab of Dr. Dwight Nishimura at Stanford.

Xiaofan Jin (Stanford Bio-X Bowes Fellow 2014) is an Assistant Professor of Biomedical Engineering at the University of Calgary.

YoungJu Jo (Stanford Bio-X Bowes Fellow 2020) is a postdoc in the bioengineering department at Stanford.

Rachel Kalmar (Stanford Bio-X Bowes Fellow 2005) is the Head of Data Products and Services at Biogen.

Mihalis Kariolis (Stanford Bio-X Bowes Fellow 2008) is the VP, Head of Non-Viral, at Voyager Therapeutics.

Kristjan Eerik Kaseniit (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2021) co-founded Radar Therapeutics around a part of his Bio-X research project creating mRNAs whose expression can be targeted to specific cell types and states. Radar's recently announced seed fundraise of over $13M from NfX, Eli Lilly & Co., and others was covered by Endpoints News, GEN, and other biotech media.

Jasmine Kaslow (Stanford Bio-X Honorary Fellow 2015) is a product analyst at Google.

Catie Meis Kasse (William and Lynda Steere Fellow, Stanford Bio-X SIGF 2020) is a senior scientist at Donaldson Company, Inc.

Katy Keenan (Stanford Bio-X Bowes Fellow 2006) is the Project Leader in Quantitative MRI at the National Institute of Standards and Technology (NIST) in Boulder, Colorado.

Hannah Kempton (Stanford Bio-X Honorary Fellow 2017) is a scientist at Stylus Medicine.

Margarita Khariton (Lavidge and McKinley Interdisciplinary Fellow, Stanford Bio-X SIGF 2017) is developing platforms for next-generation enzymatic DNA synthesis as a Senior Engineer at Ansa Biotechnologies.

"The Bio-X fellowship supported my PhD research and helped facilitate collaboration across disciplines. My project combined expertise from materials science and pediatric endocrinology to develop next generation insulin formulations to treat diabetes. It was especially impactful for me as an international student, as there are limited fellowship opportunities available to us and having access to stipend support impacts the flexibility of the research directions we pursue."
— Stanford Bio-X Bowes Fellow Caitlin Maikawa

Carolyn Kim (Mona M. Burgess Fellow, Stanford Bio-X SIGF 2017) is a researcher at Evolutionary-Scale.

Daniel Kim (Stanford Bio-X Bowes Fellow 2015) is a Hematology/Oncology fellow at Memorial Sloan Kettering Cancer Center.

Jongmin Kim (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2011) is an Assistant Professor in the Department of Biomedical Sciences at Cornell University.

Jun Woo Kim (Stanford Bio-X Bowes Fellow 2013) is a postdoc with Dr. Julien Sage at Stanford.

Samuel Kim (Stanford Bio-X Bowes Fellow 2004) is a senior research scientist at Gilead Sciences.

Yoon Seok Kim (Stanford Bio-X Bowes Fellow 2016) has recently graduated and is considering his next professional role.

Daniel Kimmel (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2006) is an Assistant Professor of Clinical Psychiatry at Columbia University, where he studies the neural basis of abstraction and generalization in humans using a combination of human behavior, functional brain imaging, and computational modeling.

Ryosuke Kita (Stanford Bio-X Bowes Fellow 2013) is a data scientist at Enceladus Bio.

Benjamin Knapp (Colella Family Fellow, Stanford Bio-X SIGF 2020) is a quantitative systems modeler at Bristol Myers Squibb.

Fikunwa Kolawole (Felix and Heather Baker Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2021) is a medical student at Stanford University. As an aspiring physician-scientist, he aims to focus on improving management of cardiovascular diseases by combining engineering and medicine.

Elgin Korkmazhan (Stanford Bio-X Bowes Fellow 2018) is a postdoctoral scholar at the Ruggero lab at UCSF, working on translational control and cancer research.

Benjamin Kotopka (Stanford Bio-X Bowes Fellow 2015) is the Head of Data Science at Antheia, a startup enabling the discovery and production of plant-inspired drugs through a pioneering approach to bioengineering and fermentation.

Brad Krajina (Stanford Bio-X Bowes Fellow 2015) is the owner and director of BK SciViz, a scientific visualization and animation studio located in Seattle.

Deepak Krishnamurthy (Stanford Bio-X Bowes Fellow 2015) is a postdoctoral Schmidt Science Fellow at UC Berkeley.

Gaurav Krishnamurthy (Stanford Bio-X Medtronic Fellow 2008) is the Chief Operating Officer at Half Moon Medical (a startup out of the Foundry, a preeminent medical device incubator in the Bay Area).

Thomas Lampo (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2013) is the co-founder and Chief AI Officer at DownPat.

Stanford Bio-X Fellows Group Photo 2019

Stanford Bio-X Bowes Fellow Maiya Yu (see pg. 14 for research details)

Frances Lau (Stanford Bio-X Bowes Fellow 2007) is an R&D manager at Facebook, working on human-computer interaction for AR/VR.

Melinda Cromie Lear (Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF 2008) is a Senior Staff Systems Engineer at Johnson & Johnson.

Paul Lebel (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2011) is a senior staff R&D engineer at the Chan Zuckerberg Biohub.

Andrew Lee (Stanford Bio-X Bowes Fellow 2010) is the founder and managing director of the StartX-QB3 joint technology venture, a co-founder of StartX Med, and also a co-founder of the biotech spin-out startup, Stem Cell Theranostics.

Austin Lee (Stanford Bio-X Bowes Fellow 2011) is a Senior Director of Portfolio Strategy with ResMed in San Diego, CA. He leads the Portfolio Strategy function within ResMed's Product organization seeking to revolutionize Sleep and Breathing health. He was previously a Principal with the health care practice of the Boston Consulting Group in the Chicago office.

Hong-Pyo Lee (Stanford Bio-X Bowes Fellow 2017) is a founder and CTO at MEDiC Life Sciences.

Soah Lee (Stanford Bio-X Bowes Fellow 2012) has started her independent career as an Assistant Professor in the School of Pharmacy at Sungkyunkwan University in South Korea.

Stephen Lee (Stanford Bio-X Bowes Fellow 2005) is a principal consultant for Work Networks.

Bauer LeSavage (Stanford Bio-X Bowes Fellow 2018) is a Senior Scientist at ImmuneBridge in San Francisco developing natural killer cell immunotherapies for cancer.

Michael Leung (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2016) is the co-founder of Spect. Spect enables Eyecare, Anywhere. Their telemedicine platform trains medical assistants and renders a diagnostic report in minutes.

Steven Leung (Stanford Bio-X Bowes Fellow 2013) is a software engineer at Orchard Ultrasound Innovation.
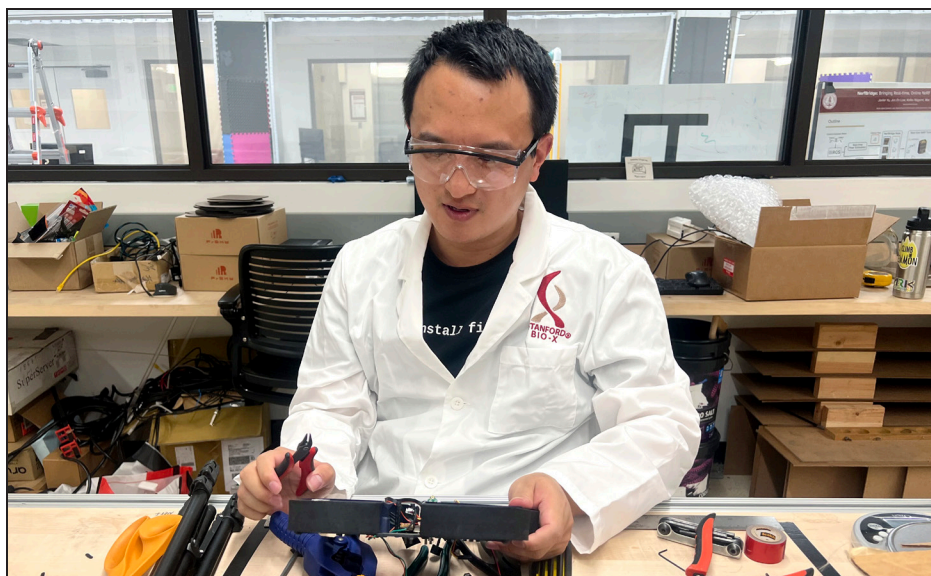
Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF Jiankai Sun (see pg. 12 for research details)

Hongquan Li (Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF 2017) is a co-founder and CEO of Cephla, a startup building open and versatile microscope platforms and solutions with the goal of accelerating discoveries and solutions.

Veronica Li (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2021) is a scientist in Professor Jonathan Long's lab at Stanford Pathology and the Sarafan ChEM-H Institute, where she works on metabolic disease.

Ye (Henry) Li (William and Lynda Steere Fellow, Stanford Bio-X SIGF 2013) is the co-founder of Nova AI, a start-up that provides automated testing for every platform, powered by AI.

Liang Liang (Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2009) is an Assistant Professor of Neuroscience at Yale University.

Orly Liba (Stanford Bio-X Bowes Fellow 2014) works at YouTube as a staff research scientist developing video generation algorithms.

Prasheel Lillaney (Stanford Bio-X Bowes Fellow 2005) is a Senior Principal Data Scientist at GSK.

Catherine Liou (Stanford Bio-X Bowes Fellow 2018) is continuing in the Sattely Lab at Stanford to finish up work investigating the impact of gut microbial metabolism on dietary plant compounds.

Sungwon Lim (Stanford Bio-X Bowes Fellow 2011) is the founder and CEO of ImpriMed, Inc., a start-up that develops an AI-driven precision medicine service for pets with cancer.

Chao Liu (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2015) is a staff scientist at the Lawrence Livermore National Lab.

Chunzi Liu (Stanford Bio-X Bowes Fellow 2019) is a postdoctoral fellow at UC Berkeley, studying the evolution of cell surfaces under the advice of Professor Daniel Fletcher.

Andreas Loening (Stanford Bio-X Bowes Fellow 2004) is an Assistant Professor in the Department of Radiology at Stanford University.

Mark D. Longo (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2011) is the Chief Technology Officer at Sirona Medical, where he is helping to build a next generation AI-powered radiologist workstation.

Molly Lucas (Stanford Bio-X Bowes Fellow 2019) is an Associate Director of Data Science at Johnson & Johnson Innovative Medicine.

Bertrand Lui (Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2006) co-founded SetSail and is currently a Senior Director of Product at ZoomInfo.

Li Ma (Larry Yung Fellow, Stanford Bio-X SIGF 2009) is a Professor of Statistical Science at Duke University.

Niru Maheswaranathan (Stanford Bio-X Honorary Fellow 2013) is a research scientist at Facebook Reality Labs working on neural interfaces.

Caitlin Maikawa (Stanford Bio-X Bowes Fellow 2019) is an Assistant Professor at the Institute of Biomedical Engineering at the University of Toronto. Her group works on developing dynamic polymer materials for drug delivery and biosensing.

Amanda Malone (Stanford Bio-X Bowes Fellow 2004) is the Chief Operating Officer and Scientific Officer of Eupraxia Pharmaceuticals Inc., a clinical-stage biotechnology company leveraging its proprietary DiffuSphere™ technology to optimize drug delivery for applications with significant unmet need.

Ian Marshall (Stanford Bio-X Bowes Fellow 2008) is an Associate Professor (tenure track) at the Section for Microbiology, Department of Biology, at Aarhus University in Denmark.

Payton Marshall (Stanford Bio-X Bowes Fellow 2017) is completing his residency in anesthesiology at Stanford.

Trevor Martin (Stanford Bio-X Bowes Fellow 2012) is the CEO and a co-founder of Mammoth Biosciences. They have raised over $465M in capital including over $100M in non-dilutive funding to build the next generation of CRISPR based permanent cures for genetic disease.

Rebecca Marton (Seth A. Ritch Graduate Fellow, Stanford Bio-X SIGF 2017) is a Scientist III at Genentech.

Melina Mathur (Stanford Bio-X Bowes Fellow 2010) is a Senior Director, Commercial Operations, at Ginkgo Bioworks.

Joanna Mattis (Stanford Bio-X Bowes Fellow 2010) completed her neurology residency and epilepsy fellowship at the University of Pennsylvania. She is now a tenure track Assistant Professor at the University of Michigan.

Aaron Mayer (Stanford Bio-X Honorary Fellow 2015) is co-founder and Chief Scientific Officer of Enable Medicine, a biopharma company that is building biological maps to guide better medicine.

Jennifer McCaney (Stanford Bio-X Bowes Fellow 2006) is the co-executive director of the University of California, Los Angeles Biodesign Program. She has a dual appointment as an Adjunct Assistant Professor at the UCLA Anderson School of Management and the UCLA David Geffen School of Medicine's Department of Medicine in the Division of Pulmonology and Critical Care.

Kelly McGill Bernhardt (Stanford Bio-X Bowes Fellow 2017) is a scientific program analyst at the National Center for Complementary and Integrative Health.

Allister McGuire (Stanford Bio-X Bowes Fellow 2013) is a hardware engineer at Echo Neurotechnologies in San Francisco.

Cory McLean (Stanford Bio-X Bowes Fellow 2007) leads the genomics team in Google Research.

Arek Melkonian (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2016) is a Research/Clinical Fellow in the Department of Pathology at Brigham and Women's Hospital.

Leslie Meltzer (Stanford Bio-X Bowes Fellow 2004) is the Chief Medical Officer at Orchard Therapeutics.

Samir Menon (Colella Family Fellow, Stanford Bio-X SIGF 2011) is the founder and CEO of Dexterity, Inc., a start-up focused on building an AI platform for robots to gain human-like skills.

Jorge Meraz (Stanford Bio-X Bowes Fellow 2018) is an analyst at PG&E, where he conducts research and analysis on emerging technologies to plan for California's transition to clean energy.

Amanda Miguel (Stanford Bio-X Honorary Fellow 2013) is a senior data scientist for the consultant company Hitachi Solutions.

Denitsa Milanova (Stanford Bio-X Medtronic Fellow 2011) is the founder and CEO of Marble Therapeutics.

Caitlyn Miller (Stanford Bio-X Honorary Fellow 2017) is CEO and co-founder of TwoStep Therapeutics.

Murtaza Mogri (Stanford Bio-X Bowes Fellow 2006) is a Delivery Science/Clinical Informatics Fellow at Kaiser Permanente, developing predictive models to support clinical decision-making.

Amr Mohamed (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2021) is currently searching for job opportunities.

Kate Montgomery (Stanford Bio-X Bowes Fellow 2009 and William and Lynda Steere Fellow, Stanford Bio-X SIGF 2012) is the director of scientific affairs at Enspectra Health. The company's technology, minimally invasive cellular imaging, was supported as an academic project by a Stanford Bio-X Seed Grant when it was early stage and high-risk, and is now being commercialized to improve human health.

Sergio Moreno (Stanford Bio-X Bowes Fellow 2004) is currently searching for job opportunities.

Paola Moreno-Roman (Stanford Bio-X Bowes Fellow 2014) is a Strategic Partnerships Consultant at Foldscope Instruments, Inc., where she works on bringing powerful low-cost tools to communities around the world. She is also a Professor at Cayetano Heredia Peruvian University, where she teaches biology to undergraduates.

Mira Moufarrej (Stanford Bio-X Bowes Fellow 2018) is a Stanford Science Fellow working with Kristy Red-Horse. She was previously an associate at The Column Group, a science-driven venture capital firm, where she focused on early-stage drug discovery company creation.

Sedona Murphy (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2020) is part of the inaugural Yale School of Medicine Science Fellows program.

David Myung (Stanford Bio-X Bowes Fellow 2005) is currently an Associate Professor of Ophthalmology at the Byers Eye Institute (BEIS) and the VA Palo Alto Health Care System, and, by courtesy, of Chemical Engineering at Stanford. He is also a Director of the Ophthalmic Innovation Program and the Director of the Stanford Automated Teleophthalmology and Universal Screening (STATUS) Program, which oversees a Bay Area-wide remote diabetic retinopathy testing program.

Dania Nanes Sarfati (Stanford Bio-X Bowes Fellow 2020) is a postdoctoral fellow at Carnegie Science.

Daniel Newburger (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2011) works as a software engineer at Google.
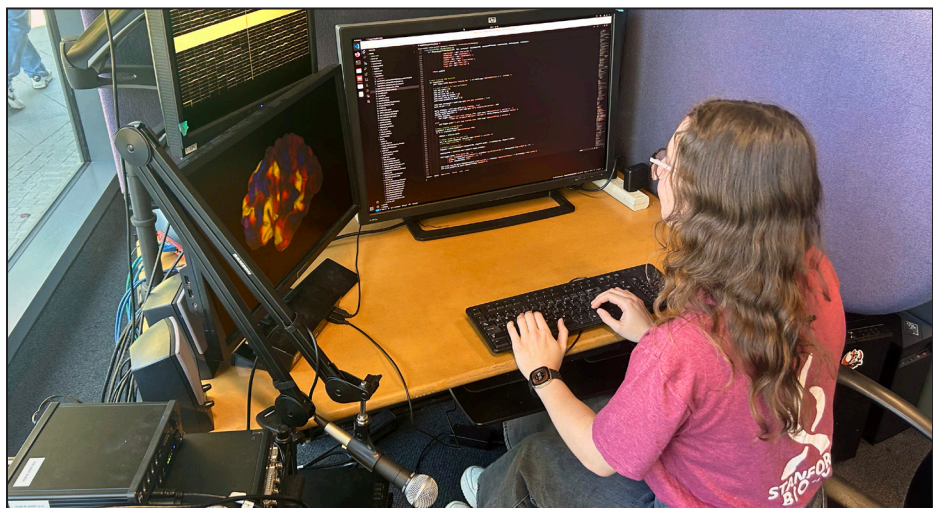
Elaine Ng (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2016) is the Chief Scientific Officer and a co-founder of Magic Lifescience.

Wendy Ni (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2012) is a data science manager at Reddit in Safety.

William Noderer (Stanford Bio-X Bowes Fellow 2010) is working for the Boston Consulting Group as a Managing Director.

James Notwell (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2013) is the head of informatics at MapLight Therapeutics, which was founded by Stanford Bio-X faculty members Dr. Karl Deisseroth and Dr. Robert Malenka.

Johanna O'Day (Stanford Bio-X Bowes Fellow 2017) is a scientific program manager at the Wu Tsai Human Performance Alliance, a collaborative center working to discover the unknown principles of peak performance and translate them to enable optimal health and well-being for all.

Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF Alisa Levin (see pg. 7 for research details)

Abdulmalik Obaid (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2018) is working at a stealth startup developing microelectronic devices in the Bay Area.

Peter Olcott (Presidential Fellow, Stanford Bio-X SIGF 2009) is a principal at First Spark Ventures, a deep tech venture fund in Menlo Park investing in breakthrough technologies that make the world healthier, safer, and more productive.

Carmichael Ong (Stanford Bio-X Bowes Fellow 2011) is a research engineer with the Mobilize Center, Restore Center, and the Wu Tsai Human Performance Alliance at Stanford University, and a consultant for applying simulation and machine learning methods in biomechanical applications.

Shawn Ouyang (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2009) is a co-founder of KymaThera Inc.

Sung Jin Park (Stanford Bio-X Bowes Fellow 2013) is a Senior Manager for Rare Disease Pipeline Forecasting at Amgen.

William Parsons (Presidential Fellow, Stanford Bio-X SIGF 2010) is an Associate Professor of Chemistry and Biochemistry at Oberlin College.

Christine McLeavey Payne (Stanford Bio-X Bowes Fellow 2009) is a researcher and multimodal team lead at OpenAI. After Stanford, she worked for six years as a classical pianist, and co-founded Ensemble SF with members of the SF Symphony and Ballet.

Bethany Percha (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2013) is Chief Data and Analytics Officer at New York-Presbyterian and Adjunct Assistant Professor at the Icahn School of Medicine at Mount Sinai.

Petar Petrov (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2017) is a postdoctoral scholar in the physics department at the University of California, Berkeley.

Steven Petsche (Stanford Bio-X Bowes Fellow 2011) works as a software engineer for Google in Irvine, California.

Samantha Piekos (Tusher Family Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2018) is a Research Scientist in Dr. Lee Hood's laboratory at The Institute for Systems Biology, where she is using multiomics placental data to understand the mechanism of pregnancy-related disorders including preterm birth, preeclampsia, and fetal growth restriction.

Benjamin Poole (Seth A. Ritch Graduate Fellow, Stanford Bio-X SIGF 2014) is a staff research scientist at Google DeepMind.

Stanford Bio-X Fellows Group Photo 2022

Arjun Prabhakar (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2016) is a Senior Scientist in R&D at Pacific Biosciences.

Guillem Pratx (Stanford Bio-X Bowes Fellow 2006) is an Associate Professor in Radiation Oncology at Stanford University. His research focus is on biomedical imaging for radiotherapy.

Teresa Purzner (Felix and Heather Baker Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2015) is a neurosurgeon, developmental neurobiologist, and co-founder and CSO of Cerebelly, a brain-focused nutritious baby food line that she started while at Stanford, which can now be found in over 10,000 stores nation-wide.

Jeffrey Quinn (Stanford Bio-X Bowes Fellow 2012) is an Associate Director for Off-Target Biology at Beam Therapeutics.

Amanda Rabe (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2016) is a scientist in the Bay Area, currently exploring employment opportunities in local BioTech and start-up industries.

Ashwin Ramachandran (Stanford Bio-X Bowes Fellow 2017) will be starting as an Assistant Professor of Mechanical Engineering at Purdue University in January 2025.

Alexander Ratner (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2017) is the co-founder and CEO at Snorkel AI, a startup supporting and commercializing the open source Snorkel framework (snorkel.org) for programmatically building and managing training data for machine learning, which he developed as part of his thesis work. He is an Affiliate Assistant Professor in Computer Science at the University of Washington in Seattle.

Manuel Rausch (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2012) is an Associate Professor in the Department of Eerospace Engineering & Engineering Mechanics at University of Texas at Austin. Manuel has received the American Heart Association Career Development Award, the Moncrief Grand Challenge Award, the NSF Career Award, and the Cockrell School of Engineering Award for Outstanding Engineering Teaching by an Assistant Professor.

Andreas Rauschecker (Stanford Bio-X Bowes Fellow 2008) is an Assistant Professor in Neuroradiology (Department of Radiology & Biomedical Imaging) at the University of California, San Francisco and co-director of the UCSF Center for Intelligent Imaging.

Heather Rogan (Rogers Family Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2016) is an Engagement Manager at Headland Strategy Group, a biotech consulting firm focused on assisting healthcare companies with commercial, corporate (BD/M&A), and portfolio and R&D strategy.

Lucero Rogel-Hernandez (Stanford Bio-X Bowes Fellow 2020) will be continuing as a postdoc in Dr. Miriam Goodman's lab after she graduates in Fall 2024.

Nicholas Rommelfanger (Stanford Bio-X Fellow 2021) is an engineer at General Atomics Aeronautical Systems in San Diego, CA.

Adam Rubin (William and Lynda Steere Fellow, Stanford Bio-X SIGF 2015) is a Helen Hay Whitney Foundation Postdoctoral Fellow at the Broad Institute in the labs of Dr. Aviv Regev and Dr. Alex Shalek.

Sanaz Saatchi (Stanford Bio-X Amgen Fellow 2009) is the Director of New Business Development at Intuitive Surgical, the pioneer and leader of robotic surgery. Collaborating with the internal Strategy, Venture, and Research organizations, she is focused on leading Intuitive's corporate development efforts by identifying and developing opportunities for new technology initiatives at Intuitive.

Joel Sadler (Stanford Bio-X Bowes Fellow 2012) previously co-founded Patch XR and is currently Chief Technology Officer at the George Lucas Educational Foundation, Lucas Learning Division.

Rachel Hagey Saluti (Mona M. Burgess Fellow, Stanford Bio-X SIGF 2014) is the co-founder and director of R&D for a biopharmaceutical start-up in stealth mode.

Jayodita Sanghvi (Stanford Bio-X Bowes Fellow 2007) is taking time off before her next career endeavor.

Annina Sartor (William and Lynda Steere Fellow, Stanford Bio-X SIGF 2018) works at RMI on the Carbon Dioxide Removal initiative.

Andrew Savinov (Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF 2014) is a K99 postdoctoral fellow in Dr. Gene-Wei Li's lab at the Massachusetts Institute of Technology.

Nicole Schiavone (Stanford Bio-X Bowes Fellow 2019) is a scientific reviewer at the FDA in the Division of Circulatory Support, Structural and Vascular Devices in the Office of Cardiovascular Devices.

Tim Schnabel (Stanford Bio-X Bowes Fellow 2015) is the founder and CEO of Switch Bioworks, a biotech startup based on research started at Stanford. Switch's mission is to feed the world sustainably by engineering microbes to produce climate-smart nitrogen "biofertilizer," directly at the roots of plants.

Alia Schoen (Stanford Bio-X Bowes Fellow 2009) is a Research Development Specialist in Stanford's Research Development Office, where she supports faculty teams from across the University with a focus on large, collaborative research proposals in the STEM fields and with emphasis on climate and sustainability research.

Mark Sellmyer (Stanford Bio-X Bowes Fellow 2008) is an Assistant Professor of Radiology with a secondary appointment in Biochemistry and Biophysics at the University of Pennsylvania.

Jake Sganga (Stanford Bio-X Bowes Fellow 2014) is a co-founder and CTO of Remedy Robotics, a surgical robotics startup.

Pankaj Sharma (Stanford Bio-X Bowes Fellow 2012) is a Pre-Silicon Verification Engineer at Intel Corporation.

Anna Shcherbina (Stanford Bio-X Bowes Fellow 2017) is a machine learning engineer at insitro, a start-up focused on high throughput drug target discovery and development.

> *"The Bio-X cohort and its collaborative culture taught me to set my sights on grand challenges, scaffold my own resources and apply my creativity to chart a new course towards my goals. This support and training gave me the courage to train in multiple fields for my Ph.D. and postdoc and rise to the challenge of developing expertise in new domains. These experiences also changed my vision of how my research could address grand challenges in human health. Ultimately, the interdisciplinary experience being a Bio-X fellow has allowed me to develop my own unique and innovative program at the intersection of nanotechnology, medicine and manufacturing.""*
> **— Stanford Bio-X Bowes Fellow Rebecca Taylor**

Liyue Shen (Stanford Bio-X Bowes Fellow 2019) is an Assistant Professor in the Department of Electrical Engineering & Computer Science (EECS) at the University of Michigan.

Handuo Shi (Rosenberg Ach Family Fellow, Stanford Bio-X SIGF 2016) is a postdoctoral scholar in Dr. Justin Sonnenburg's lab at Stanford. Her research focuses on the biophysical modeling of human gut bacterial communities.

Avanti Shrikumar (Stanford Bio-X Bowes Fellow 2016) is a postdoctoral researcher in the University of Sydney's Imaging and Phenotyping Laboratory.

Steven Shuken (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2017) is a postdoctoral research fellow in the Gygi Laboratory in the Department of Cell Biology at Harvard Medical School in Boston, MA. The Gygi Lab develops novel methodologies in mass spectrometry-based proteomics.

Jack Silberstein (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2020) is working at a stealth biotech startup in Cambridge, MA.

Herbert Silva (Stanford Bio-X Bowes Fellow 2013) is working at Johnson Space Center (NASA) in the Aerospace Engineering department.

Joo Yong Sim (Stanford Bio-X Bowes Fellow 2010) is an Assistant Professor at Sookmyung Women's University, South Korea.

Steven Sloan (Stanford Bio-X Bowes Fellow 2014) is an Assistant Professor in the Department of Human Genetics at Emory University.

Ruth Sommese (Paul Berg Interdisciplinary Biomedical Graduate Fellow, Stanford Bio-X SIGF 2011) is an Associate Research Fellow at Pfizer.

Min-Sun Son (Stanford Bio-X Bowes Fellow 2007) is a director of clinical engineering at Neptune Medical.

Ryan Squire (Stanford Bio-X Bowes Fellow 2010) is the owner of Lembas Data Science, a consulting practice focused on statistics and geospatial data science for internet technology companies.

Alice Stanton (Stanford Bio-X Bowes Fellow 2017) is a senior postdoctoral associate at MIT in Robert Langer's laboratory.

Lyndsay Stapleton Smith (Affymetrix Bio-X Fellow, Stanford Bio-X SIGF 2018) is an Associate Director of Corporate Development at Calcilytix Therapeutics, a BridgeBio company.

Jaimie Steinmetz (Stanford Bio-X Honorary Fellow 2010) is a Lead Research Scientist at the Institute for Health Metrics and Evaluation.

Ajay Subramanian (Rosenberg Ach Family Fellow, Stanford Bio-X SIGF 2019) is a postdoc at Stanford continuing work in the relationships between neural signals and psychiatric symptoms.

Pakpoom Subsoontorn (Stanford Bio-X Bowes Fellow 2008) is the Vice Dean of Research & Innovation, Faculty of Medical Science, at Naresuan University.

Patricia Suma (Stanford Bio-X Bowes and Stanford Bio-X Amgen Fellow 2011) is an 8th grade living environment teacher at Washington Heights Expeditionary Learning School (WHEELS) in Washington Heights in New York City.

Laksshman Sundaram (Stanford Bio-X Bowes Fellow 2019) works at NVIDIA as a Senior Deep Learning Scientist.

Jong Min Sung (Stanford Bio-X Bowes Fellow 2009) is a principal data scientist at Roche Sequencing Solutions, Santa Clara.

Johanna Sweere (Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2015) is transitioning into a career within biosecurity and pandemic preparedness, and is currently working on projects with Blueprint Biosecurity and SecureBio.
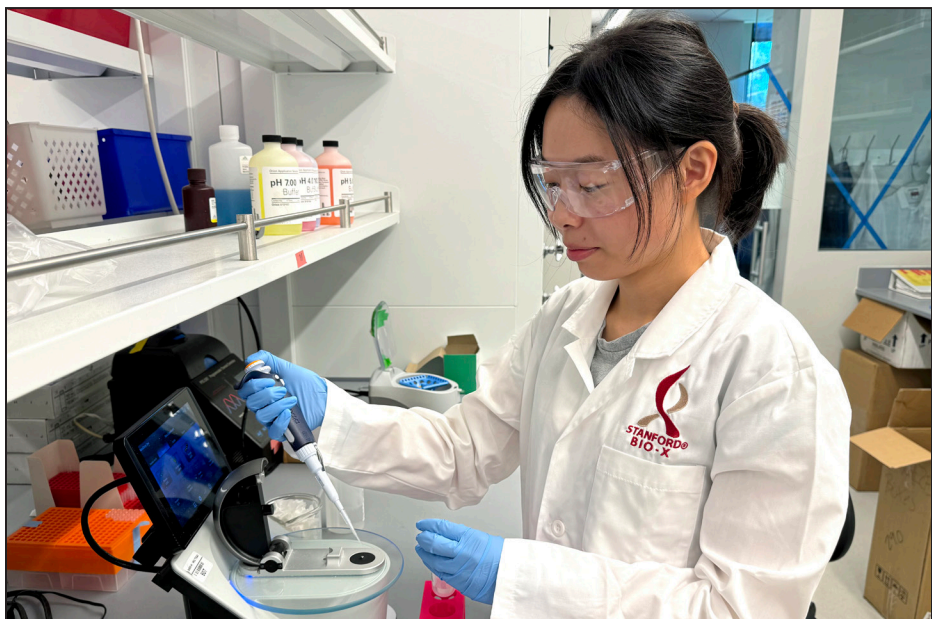
Affymetrix Bio-X Fellow, Stanford Bio-X SIGF Sipei Fu (see pg. 6 for research details)

Jiongyi Tan (Enlight Foundation Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2014) is a senior scientist at Eikon Therapeutics.

Grace Tang (Stanford Bio-X Bowes Fellow 2008) is a principal staff machine learning engineer (trust and fairness AI) at LinkedIn.

Alexander Tarashansky (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2018) is a senior software engineer at the Chan Zuckerberg Initiative.

Noureddine Tayebi (Stanford Bio-X Bowes Fellow 2009) is a founder/investor of Yassir as well as investor and advisor of Punchword.

Rebecca Taylor (Stanford Bio-X Bowes Fellow 2007) is the ANSYS Career Development Associate Professor of Mechanical Engineering at Carnegie Mellon University.

Terence Theisen (Colella Family Fellow, Stanford Bio-X SIGF 2017) is "pursuing being their best self" and also a scientist at Nanostring Technologies in Seattle, WA.

Ella Thomson (Stanford Bio-X Bowes Fellow 2020) is an electrical engineer at Microsoft.

Victor Tieu (Stanford Bio-X Bowes Fellow 2020) is a scientist at Site Therapeutics, an early stage startup in SF (Mission Bay) focusing on high-throughput functional genomics to treat immune-related diseases.

Matthew Titchenal (Stanford Bio-X Bowes Fellow 2015) is continuing his post-graduate career as a technical consultant at InSciTech in Mountain View, California.

Carolina Tropini (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2011) is an Assistant Professor in the School of Biomedical Engineering and the Department of Microbiology and Immunology at the University of British Columbia.

Baris Ungun (Stanford Bio-X Bowes Fellow 2014) is a Staff Machine Learning & Optimization Engineer at TheraPanacea.

Jules VanDersarl (Stanford Bio-X Bowes Fellow 2005) works at Meso Scale Diagnostics as a Senior Director of Engineering.

Kimberly Vasquez (Stanford Bio-X Bowes Fellow 2019) is an industry postdoc at Gilead, studying regulatory T cells.

Avin Veerakumar (Lubert Stryer Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2017) has started his Psychiatry Residency (research-intensive track) at Harvard Medical School/Brigham and Women's Hospital in Boston.

Mathias Voges (Stanford Bio-X Bowes Fellow 2013) is a machine learning engineer at Google X.

Michael Wainberg (Stanford Bio-X Bowes Fellow 2016) is a PI at Mount Sinai Hospital's Lunenfeld-Tanenbaum Research Institute in Toronto.

Graham Walmsley (Stanford Bio-X Fellow 2015) is a co-founder and Managing Partner of Logos Capital, a fundamental biotechnology-focused investment fund that seeks to combine in-house data analytics with scientific and clinical expertise to identify transformative therapies in healthcare.

Aaron Wang (Stanford Bio-X Bowes Fellow 2006) is part of a private practice in Pittsburgh, Pennsylvania, as a corneal specialist. He is working on commercializing a new ophthalmic imaging device, for which he recently obtained a patent. He is also developing new surgical instruments.

Christine Wang (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2014) is a software engineer at Flatiron Health.

Cosmos (Yuqi) Wang (Felix and Heather Baker Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2018) is a postdoctoral fellow in Xiaowei Zhuang's lab at Harvard University, where he is applying spatially resolved single-cell multi-omics technologies to the brain.

David Wang (Stanford Bio-X Bowes Fellow 2020) is an MD-PhD student currently in his last two years of medical school at Stanford, and is interested in pursuing an academic medical career in child psychiatry.

Jack Wang (Stanford Bio-X Bowes Fellow 2011) is a neurocritical care physician at Stanford University Medical Center.

Jiarui Wang (Mona M. Burgess Fellow, Stanford Bio-X SIGF 2018) is a clinical applications manager at Miltenyi Biotec.

Larry Wang (Stanford Bio-X Bowes Fellow 2007) is a launch program manager at Pebble Technology.

Lucy Wang (Stanford Bio-X Bowes Fellow 2020) is working as a product design Finite Element Analysis (FEA) engineer at Apple.

Wanxin Wang (Stanford Bio-X Bowes Fellow 2015) is a staff scientist at Curio Bioscience in Palo Alto, CA.

Yen-Hsiang Wang (Stanford Bio-X Bowes Fellow 2009) is the VP of Strategy & Partnerships at Antheia.

Aaron Wenger (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2010) is a director at Pacific Biosciences, developing applications of long-read genome sequencing.

Lucien Weiss (Stanford Bio-X Bowes Fellow 2012) is an Assistant Professor of Engineering Physics at Polytechnique Montreal.

Andrew Weitz (Stanford Bio-X Bowes Fellow 2012) is a co-founder at Infinity AI, a venture-backed startup developing a script-to-video foundation model.

Aaron Wilk (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2019) is a resident in Clinical Pathology at Stanford Health Care. He plans to complete fellowship training in hematopathology, and his research will aim to bring advances in systems immunology into the clinical laboratory.

Kitchener Wilson (Stanford Bio-X Bowes Fellow 2007) is the co-founder and CEO of Rosebud Biosciences.

Brian Wilt (Stanford Bio-X Bowes Fellow 2008) is a staff software engineer at Waymo.

Yonatan Winetraub (Stanford Bio-X Bowes Fellow 2016) won the NIH Director's Early Independence Award in 2021 and started his lab in the structural biology department at Stanford. His lab explores how to detect cancer non-invasively by combining optical coherence tomography and machine learning.

Katrina Wisdom (Stanford Bio-X Honorary Fellow 2016) is a Scientific Leader of Oligo Sciences at GlaxoSmithKline.

Remus Wong (Stanford Bio-X Bowes Fellow 2010) is a Principal Scientist at Nkarta, where he performs cell therapy research and process development activities on Nkarta's engineered NK cells.

Angela Wu (Stanford Bio-X Bowes Fellow 2006) is an Associate Professor in the Division of Life Science and the Department of Chemical and Biological Engineering at Hong Kong University of Science and Technology (HKUST).

Lyndia Wu (Stanford Bio-X Bowes Fellow 2014) is an Assistant Professor in the Mechanical Engineering Department at the University of British Columbia in Vancouver, Canada.

Nan Xiao (Stanford Bio-X Bowes Fellow 2007) works for Heartflow, Inc. in Redwood City as a computational scientist.

Adele Xu (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2019) is currently completing the clinical portion of her MD training as part of Stanford's Medical Scientist Training Program.

Yuan Xue (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2018) is a bioinformatics scientist that leads process optimization at ClearNote Health.

Andrew Yang (Stanford Bio-X Honorary Fellow 2015) opened his lab at University of California, San Francisco and the Gladstone Institutes as an Assistant Professor.

Morgridge Family SIGF Fellow, Stanford Bio-X SIGF Kara Liu (see pg. 7 for research details)

Helen Yang (Lavidge and McKinley Interdisciplinary Fellow, Stanford Bio-X SIGF 2014) is a research fellow at Harvard Medical School with Dr. Rachel Wilson.

Renzhi Yang (Stanford Bio-X Bowes Fellow 2016) is a postdoctoral researcher in Nirao Shah's lab at Stanford.

Yufeng Yang (Stanford Bio-X Bowes Fellow 2005) is a Professor/Investigator in the Institute of Life Sciences at Fuzhou University.

Peggy Yao (Stanford Bio-X Bowes Fellow 2006) is an Engineering Manager of a machine learning team at Facebook.

Sara Z. Yao (Stanford Bio-X Bowes Fellow 2004) founded DeviceDebut, LLC after exploring medical device R&D for over 5 years. DeviceDebut helped U.S. and EU medical device manufacturers register with CFDA, enter the Chinese market, and receive funding from the Chinese investors. Since late 2020, Sara has shifted her career focus to the local Bay Area, and has been a Realtor serving the local communities.

Anne Ye (Stanford Bio-X Bowes Fellow 2012) is working at Diffuse Bio in San Carlos.

Patrick Ye (Bruce and Elizabeth Dunlevie Fellow, Stanford Bio-X SIGF 2013) is a fellow at BillionToOne, a molecular diagnostics startup in Menlo Park, CA.

Michael Yip (Stanford Bio-X Bowes Fellow 2013) is an Associate Professor of Electrical and Computer Engineering at the University of California, San Diego. He is the founder of Channel Robotics, a surgical robotics startup, and AtmosphereData, an AI platform for business intelligence in healthcare.

Jennifer Yong (Morgridge Family SIGF Fellow, Stanford Bio-X SIGF 2012) is a Human Factors Researcher at Google.

Ryan York (Stanford Bio-X Bowes Fellow 2013) is a scientist at Arcadia.

Alexander Yoshikawa (Stanford Bio-X Bowes Fellow 2017) is the co-founder and CSO of Adaptyx Biosciences, a startup developing continuous biosensors, located in Menlo Park.

Noah Young (Stanford Bio-X Bowes Fellow 2012) is a senior machine learning engineer at Mashgin.

Maxim Zaslavsky (Stanford Bio-X Bowes Fellow 2022) is a postdoc co-advised by Anshul Kundaje and Scott Boyd at Stanford.

Bo Zhang (Mona M. Burgess Fellow, Stanford Bio-X SIGF 2013) is the VP of chemistry and cofounder of Apostle, Inc. Apostle is a biotechnology company in Sunnyvale, California, which has been accepted by the Stanford StartX accelerator. Bo is also an Associate Professor at Southern University of Science and Technology of China.

Eric Zhao (Donna Schweers and Thomas Geiser Fellow, Stanford Bio-X SIGF 2020) is currently a Croucher Foundation Fellow at Stanford University with Professor Zhenan Bao in Chemical Engineering and Professor Julia Kaltschmidt in Neurosurgery.

Xiaoxue Zhou (Larry Yung Fellow, Stanford Bio-X SIGF 2010) is an Assistant Professor at NYU Biology.

Danqing Zhu (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2015) is an Assistant Professor at Hong Kong University of Science & Technology in the Department of Chemical & Biological Engineering.

Biyao Zou (City Hill Foundation Stanford Interdisciplinary Graduate Fellow, Stanford Bio-X SIGF 2020) is an epidemiologist and observational research manager at Amgen, a leading biotech company. At Amgen, she leverages real-world patient data to address questions throughout the drug development lifecycle and enhance the understanding of diseases, therapeutic interventions, and clinical outcomes.

Xinzhi Zou (Stanford Interdisciplinary Graduate Fellow (Anonymous Donor), Stanford Bio-X SIGF 2019) is a postdoctoral scholar in the lab of Dr. Michael Lin at Stanford.

Stanford Bio-X Postdocs

The Stanford Bio-X Postdoctoral Fellowships are made possible through the support of our industry contacts. To date, eight students have been postdoctoral fellows, all of whom are now making an impact in academia and industry.

Tiffany Chung (Stanford Bio-X Postdoctoral Fellow 2005) is a chemist for the Hong Kong government.

Anna Geraghty (Stanford Bio-X Genentech Postdoctoral Fellow 2015) is a senior staff scientist in the department of neurology and neurological sciences at Stanford University.

Subhaneil Lahiri (Stanford Bio-X Genentech Postdoctoral Fellow 2012) is a Physical Science Research Scientist at Stanford University.

Yu-Shan Lin (Stanford Bio-X Postdoctoral Fellow 2009) is a Professor of Chemistry, and chair of the department, at Tufts University.

Elena Rykhlevskaia (Stanford Bio-X Lubert Stryer Interdisciplinary Postdoctoral Fellow 2008) is a Director of Marketing Data Science at Meta.

Shilpa Sambashivan (Stanford Bio-X Genentech Postdoctoral Fellow 2007) is a member of the founding scientific team at Nura Bio and serves as Chief Scientific Officer.

Sergey Solomatin (Stanford Bio-X Postdoctoral Fellow 2005) is the VP of Food Science and Product Development at Alpine Bio.

Tristan Ursell (Stanford Bio-X Genentech Postdoctoral Fellow 2009) is a Multi-modal Expert Prompt Engineer at Outlier AI and a Climatebase Fellow.

Stanford Bio-X Bowes Fellow Isabella Archibald (see pg. 4 for research details)

Stanford Bio-X PhD Fellowship Program 2024

Stanford Bio-X Fellows Group Photo 2015

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contact-biox@stanford.edu