# 2020 University of California Hellman Fellows

### UC Berkeley

Rebecca	Abergel	Nuclear Engineering	Targeted Design of New Radionuclide-Based Antimicrobial Therapeutics
Patrick	Bradshaw	Public Health	Body Composition and Cardiovascular Disease in African-American and White Adults
Dennis	Feehan	Demography	Interpersonal contact in the US during the COVID- 19 pandemic
Avi	Feller	Public Policy	What works in reducing gun violence? Assessing methods for estimating impacts of gun policy changes
Grace Xiang	Gu	Mechanical Engineering	Bioprinting nature: Design and fabrication of novel synthetic tissues using artificial intelligence
Atreyee	Gupta	History of Art	Non-Aligned: Decolonization, Modernism, and the Third World Project, India ca. 1930–1960
Erin	Kerrison	Social Welfare	Mixed-Method Analysis of Contemporary Desistance & Recidivism
Celeste	Kidd	Psychology	Interventions to slow the adoption of misinformation
Kranthi Kiran	Mandadapu	Chemical & Biomolecular Engineering	Coupled electrical-chemical-mechanical aspects in action potential generation and propagation in neurological signaling mediated by lipid membranes
Christopher	Muller	Sociology	The Political Economy of Mass Incarceration
Steven	Piantadosi	Psychology	Compute resources for computational models of development

Teresa	Puthussery	Optometry	Understanding the Functions of the Diverse Output Neurons of the Human Retina
Albert	Ruhi	Environmental Science, Policy & Management	Drought on riverine networks: how does flow intermittency disrupt stream ecosystem processes?
Maria	Sonevytsky	Music	Lullabies for Lenin: Soviet Children, Music, and the Communist Future
Koushil	Sreenath	Mechanical Engineering	PDE-based Dynamics and Control for Fire Fighting using a Flying Fire Hose
Ronit Y	Stahl	History	Troubling Conscience: Religious Freedom and Health Care in Modern America
Hannah	Stuart	Mechanical Engineering	Reassessing human dexterity as a framework for assistive technology design
Peter	Sudmant	Integrative Biology	Probing the fidelity of chromatin structure in aging at the single cell level
William	Tuten	Optometry	Advanced optical systems for measuring vision at the cellular level in the human eye
William	White	Anthropology	, Digitizing Black Heritage through Collaborative Archaeology
Guo	Xu	Business	The Economic Costs of Employment Segregation: Evidence from the US Federal Government
UC Davis			
Rahel	Sollmann	Wildlife, Fish and Conservation Biology	Studying the mammal community of the vanishing Amazon-Cerrado ecotone
Darnel	Degan	School of Education	Challenging Deficit Discourse in Multimodal Arts-Based Education with Counter-Stories from Media Industry Professionals

# 2019-20 University of California Hellman Fellows

Nicole	Sparapani	School of Education	Evaluation of Interactions between Early Elementary Students with Autism and their Teachers during Literacy and Mathematics Classroom Observations
Jeremy	K Mason	Maerials Science and Engineering	Designing the Materials of Tomorrow: Simulations of Atomic Transport
Randy	Haas	Anthropology	Human Adaptation of Extreme Environments: 9000- year-old DNA from the High Andes, Peru
Ryan H	Ubert	Political Science	The U.S. District Court Docket Database
Emily	Merchant	Science and Technology Studies	Molecular Eugenics
Lauren	Peritz	Political Science	Legislating Globalization in U.S. Congress
Laura	Starkston	Mathematics	Weinstein Manifolds
Colin	Webster	Classics	Technologies of Nature in Classical Antiquity

#### **UC** Irvine

Elizabeth	Bess	Chemistry	Using Dietary Fiber to Harvest Novel Probiotics from the Human Gut Microbiome
Lindsay	Gilmour	Dance	Tibetan Ritual Dance n Monasteries and Nunneries: Preservation, Adaptation, and Innovation
Zoe J.	Klemfuss	Psychological Science	Facilitating Children's Disclosures of Maltreatment
Riis	Jenna	Psychological Science	Oral Health and Salivary Biomarkers

Singh	Sameer	Computer Science	Explaining Decisions of Machine Learning Algorithms
UCLA			
			Settler Colonial Choreography and Indigenous
Tria	Blu Wakpa	World Arts and Cultures/Dance	Resistance: Native American Embodiment in Educational and Carceral Contexts
Xiang	Chen	Electrical and Computer Engineering	Enabling an Ecosystem of Human-Centered Medical AI
Hengchen	Dai	Management	An Interpersonal Perspective on Motivation and Well- being in the Sharing Economy
Mackenzie	Day	Earth, Planetary, and Space Sciences	Optimizing the Search for Life on Mars
Thomas	Dumitrescu	Physics and Astronomy	How Many Qubits are there in a Quantum Field?
Cesar	Favila	Musicology	Immaculate Sounds: The Musical Lives of Nuns in New Spain
Juan	Herrera	Geography	Intersectional Geographies: Queers of Color in LA and the Politics of Belonging
Candice	Lin	Art	"A Piece of Blue Sky"
Elizabeth	Mayeda	Epidemiology	Estimating Population Prevalence of Pre-Clinical Alzheimer's Disease: Application of Epidemiologic Tools to Enhance Generalizability of a Biomarker Study
Veronica	Paredes	Film, Television and Digital Media	Staying in Place, Surviving Networks: Collaboration and Feminist Media Technology

# 2019-20 University of California Hellman Fellows

Junyoung	Park	Chemical and Biomolecular Engineering	Maximizing CO2 Utilization by Engineering Non- Photosynthetic Metabolism
Sunita	Patel	Law	Community Engagement in Police Structural Reform Remedies
Aaswath	Raman	Materials Science and Engineering	Multi-functional Metamaterials to Enable Passive Dew Condensation
Mary	Rezk-Hanna	Nursing	Effect of Secondhand Aerosol Exposure from Electronic Hookah Vaping
Кау	Rhie	Music	Quake
Amy	Ritterbusch	Social Welfare	"Quien Reclama Estas Vidas? Identidades Desaparecidas": LGBTQ Truths in the Colombian Armed Conflict
Rodrigo	Valenzuela	Art	The Unwaged

#### UC Merced

Ahmed	Sabbit Arif	Computer Science and Engineering	Enabling Motor Impaired People to Input Text on Mobile and Wearable Devices
Daniel	Beller	Physics	Modeling 3D Active Nematics Through their Topological Defects
Хисеаі	Ge	Molecular and Cell Biology	Proteomic study of signaling proteins in primary cilium in the developing brain
Jennifer	Hahn-Holbrook	Psychology	Does breast milk help babies tell time? A study of daily changes in human milk and circadian biology in infancy

# 2019-20 University of California Hellman Fellows

#### **UC Riverside**

Kandis	Abdul-Aziz Gilliard	Chemical/Environ. Engineering	Sustainable Chemical Recycling Technology for the Upcycling of Plastic Waste into Fungible Fuels
Venkatarama	Bhargav Rallabandi	Mechanical Engineering	Multiscale Modeling of Sea-Ice: Linking Ice Floe Dynamics to Climate
Alisa	Bierria	EthnicStudies	Missing in Action: Agency, Race, & Invention
llana	Hershman Bennett	Psychology	What Happens To Future Decisions When We Forget The Past?
Ruoyao	Shi	Economics	What are Effective Forms of Assistance to Advance Homeownership for Disadvantaged Households?
Nicole	Rafferty	Evolution, Ecology & Orgns Bio	Does Warming Lead to Asynchrony Between Plants and Pollinators?
Philip Alfred	Tanedo	Physics & Astronomy	Discovering Dark Forces in an Extra Dimension

#### UC San Diego

Galia	Debelouchina	Chemistry And Biochemistry	Development of Targetable Polarization Agents for Structural Biology in Cells
Francisco	Garfias Royo	Global Policy And Strategy	The Fiscal Contract up Close: Experimental Evidence from Mexico City
Stacey	Glasgow	Neurobiology	Gliogenesis: Charting New Pathways for Glioma Therapies
Uma	Karmarkar	Rady School Of Management	Attention and Value Estimation in Multi-option Decision Making

Shawna	Kidman	Communication	Media Industries in Flux: Organizational Resilience and the Generation of Capital Since 1980
Tongyan	Lin	Physics	New Signatures of Particle Dark Matter in Low- Threshold Detectors
Katherine	Meckel (Clemens)	Economics	Early Life Determinants of Suicides and Overdoses among Middle Aged Californians
Gareth	Nellis	Political Science	WhatsApp with India? The Effects of Social Media on Political Preferences and Violent Majoritarianism
Agustina	Paglayan	Political Science	The Autocratic Roots of the Global Learning Crisis
Perez Wilfrido	Terrazas	Music	The Torres Cycle (2014-20). Recording and Performance Project
Ingrid	Tomac	Structural Engineering	Post-Wildfire Mudflows Explained with Transport Phenomena of Hydrophobic Particle-Air-Water Mixtures
Monique	Wonderly	Philosophy	Attachment, Agency, and Virtue: A Philosophical Treatment of Emotional Attachment
Wenxin	Zhou	Mathematics	Smoothed Quantile Regression: Methods, Theory and Algorithm
UCSF			
			Corobral white matter in juny and connectivity
Edilberto	Amorim	Neurology	Cerebral white matter injury and connectivity disruption in overdose-related cardiac arrest
Emilia	De Marchis	Family & Community Medicine	Evaluating Clinical Activities to Address Patients' Social Risk Factors
Alison	El Ayadi	Obstetrics, Gynecology& Reproductive Sciences	Characterizing maternal morbidity in California: trends and risk factors

# 2019-20 University of California Hellman Fellows

Lauren	Haack	Psychiatry	Adapting a Digital School Mental Health Program into Spanish for Latinx Youth with ADHD and ODD
Rachel	Kaplan	Obstetrics, Gynecology& Reproductive Sciences	Addressing Health Disparities Among Transgender Women in the Middle East
Ashwin	Kotwal	Medicine, Division of Geriatrics	Developing an Intervention for Loneliness and Social Isolation among Older Adults with Cognitive Impairment
Cherry	Leung	Community Health Systems	Tryptophan Metabolism by the Gut Microbiome and Adolescent Depressive Symptoms
Anjana	Sharma	Family & Community Medicine	ExPERTS-PC: Engaging Patients in Event ReporTing for Safety in Primary Care
Neel	Singhal	Neurology	Modeling neuronal resilience with stroke genetic variants in hiPSC

#### UC Santa Barbara

Zoe	Liberman	Psychology	You are whom you eat with: Food choice as a window into early social categorization
Emily	Jacobs	Psychology	Identifying the impact of sex hormone suppression on brain morphology
Christopher	Bates	Materials Engineering	Precision Polymer Synthesis Inspired By Nature
Gabriel	Menard	Chemistry	Electrocatalytic Ammonia Oxidation for Energy Storage Applications
Elana	Resnick	Anthropology	Racialized Power: Nuclear Energy and Infrastructural Inequality in Bulgaria
Holly	Moeller	Ecology, Evolution, and Marine Biology	Developing a model system for the endosymbiotic origin of eukaryotic chloroplasts

Manuel	Covo	History	The Treasurer's Tale: A Lost Account of the Haitian Revolution
William	Fleming	East Asian Languages and Cultural Studies	Machida Keijiro, American Samurai
UC Santa Cruz			
Saskias	Casanova	Psychology	Youth Participatory Action Research, Cultural Knowledge & Resilience for (Im)migrant High School Students
A.M.	Darke	Arts	Open Source Afro Hair Library
Camilla	Hawthorne	Sociology	A Black Santa Cruz Sense of Place
Timothy	Johnstone	Chemistry & Biochemistry	Medicinal Inorganic Chemistry to Treat Carbon Monoxide Poisoning and Neglected Tropical Disease
Jennifer	Kelly	<b>Feminist Studies</b>	Three pre-tenure projects
Katy	Seto	Environmental Studies	Turning the Tide: Shifting Access, Equity, and Vulnerability in Coastal California
Michael	Wehner	Electrical and Computer Engineering	Low cost automation for Endotracheal Intubation
Margaret	Zimmer	Earth and Planetary Sciences	Quantification of groundwater recharge in non- perennial rivers