



Stanford Bio-X Interdisciplinary Initiatives Seed Grants Poster Session

August 27, 2026

Posters are alphabetized by the last name of the presenter.

Presenters' names are listed in bold.



Posters highlighted in red in the list below are presented by the Stanford Sapp Family CS Bio-X Undergraduate Summer Research Program participants. These boards will be marked with a balloon.

POSTER #	TITLE	AUTHORS
1	C.O.A.S.T.: Comparative Organoleptic Analysis of Shrimp Texture	Aeneas Koosis ¹ , Ellen Kuhl ¹ Department of Mechanical Engineering ¹ , Stanford University
2	Magnetic Milli-Spinner Microbot (M3bot) for Robotic Endovascular Surgery for Stroke Treatment	Luca Higgins ¹ , Shuai Wu ¹ , Lu Lu ¹ , Yilong Chang ¹ , Renee Zhao ¹ Department of Mechanical Engineering ¹ , Stanford University
3	Catheter-Based Electrochemical Sensing for Safer Minimally Invasive Procedures	Ronny Abdullah ¹ , Ali Akbarischat ² , Alexander M. Veziridis ² Departments of Electrical Engineering ¹ and Radiology ² , Stanford University
4	Exploring the Role of CDH1 and Synthetic Lethality Through Transcriptomic Analysis in Cancer Cell Lines	Nathan Adam ¹ , Shanthi Adimoolam ¹ , James Ford ¹ Department of Medicine/Oncology ¹ , Stanford University
5	Dark Matter Searches Using a Time-Resolved Mössbauer Spectrometer	Ezri Adelsbach ¹ , Jacquelyn Huang ¹ , Chiara Maria Brandenstein ¹ , Lorenzo Magrini ¹ , Giorgio Gratta ¹ Department of Physics ¹ , Stanford University
6	Systemic Neutralizing Antibody Responses to Intravitreal AAVs: Implications for Gene Therapy Redosing	Dhruv Aggarwal ¹ , Ziyu Yu ¹ , Jinliang Li ¹ , Jeffrey L. Goldberg ¹ Spencer Center for Vision Research ¹ , Byers Eye Institute, Stanford University
7	Identifying Proteins Retrogradely Transported from the Brain to Retinal Ganglion Cells In Vivo	Dhruv Aggarwal ¹ , Carola Rutigliani ¹ , Sahil Shah ¹ , Merut Shankar ¹ , Jeffrey L. Goldberg ¹ Spencer Center for Vision Research ¹ , Byers Eye Institute, Stanford University
8	Characterizing Sex-Based Differences in Myeloid Cell Activation and Astroglisis in Neurodegenerative Disease	Zainab Al-Atya ¹ , Ezzat Hashemi ¹ , Zahra Sardar Melli ¹ , Keith Van Haren ¹ Department of Neurology & Neurological Sciences (Pediatric Neurology) ¹ , Stanford University
9	Modulating Early Immune Dynamics - GC Responses and Injection Site Niches in Long Acting Vaccines	Alakesh ¹ , Priya Ganesh ¹ , Ibukun Ajifolokun ¹ , Ye Eun Song ¹ , Changxin Dong ¹ , Eric A. Appel ¹ Department of Materials Science & Engineering ¹ , Stanford University
10	Small Molecule IBR403 Enables Robust Expansion of Hematopoietic Stem and Progenitor Cells for Scalable Mitochondria-Rich Extracellular Vesicle Production	Raza Ali ^{1,2} , Jamie Ho ^{1,2} , Gentaro Ikeda ^{1,2} , Nina Horowitz ³ , Rui Tostoes ³ , Phillip C. Yang ^{1,2} Stanford Cardiovascular Institute ¹ ; Department of Medicine (Division of Cardiovascular Medicine) ² , Stanford University; ImmuneBridge, Inc. ³
11	Expanded Umbilical Cord Blood CD34+ Hematopoietic Stem Cells as a Novel Source for Plasma-Free	Jamie Ho ^{1,2} , Raza Ali ^{1,2} , Gentaro Ikeda ^{1,2} , Masashi Miyauchi ³ , Hiromitsu Nakauchi ^{4,5} , Phillip C. Yang ^{1,2}

	Manufacturing of Therapeutic Mitochondria-Rich Extracellular Vesicles	Stanford Cardiovascular Institute ¹ ; Stanford Departments of Medicine (Divisions of Cardiovascular Medicine ² and Hematology ³) and Genetics ⁵ and Institute for Stem Cell Biology & Regenerative Medicine ⁴ , Stanford University
12	Zebrafish: A Scalable <i>in vivo</i> Platform for Inducible Acute Pancreatitis and Therapeutic Target Discovery	Prince Allawadhi ¹ , Cheng-Yu Tsai ¹ , Wenmo Hu ¹ , Shamik Banerjee ¹ , Venkata S. Akshintala ² , Bomi Lee ¹ , Luis Hernandez Nunez ³ , Sohail Z. Husain ^{1*} (*corresponding author) Departments of Pediatrics (Division of Gastroenterology, Hepatology, & Nutrition ¹), Medicine (Division of Gastroenterology ²), and Biology ³ , Stanford University
13	Investigating Epileptiform Activity's Effect on Speech Envelope Tracking in Children with Epilepsy	Riya Anand ¹ , Jill Kries ¹ , Ilina Bhaya-Grossman ¹ , Fiona Baumer ^{2*} , Laura Gwilliams ^{1*} (*shared last authors) Departments of Psychology ¹ and Neurology (Division of Child Neurology) ² , Stanford University
14	VISTA Immunoreceptor Is a pH Sensitive Sulfate Binding Protein	Tina Andoh ^{1,2} , Yan Zhao ¹ , Ishrat Durdana ² , Josh Gruber ¹ Department of Medicine (Division of Oncology) ¹ , Stanford University; Internal Medicine ² , Harold C. Simmons Comprehensive Cancer Center, UT Southwestern Medical Center
15	Associations Between APOE Genotypes and MR-based Neurobiological Measures In Those With Alcohol Use Disorder	Roberto Andrade ¹ , Claudia Padula ² , Margaret McNerney ² , Timothy Durazzo ² Program in Human Biology ¹ and Department of Psychiatry & Behavioral Sciences ² , Stanford University
16	Early Diagnosis of Renal Cancer Using B7-H3 Targeted Molecular Probes	Lokprakash Aravindan ¹ , Arutselvan Natarajan ¹ , Jeremy Dahl ¹ , Ramasamy Paulmurugan ¹ Department of Radiology ¹ , Stanford University
17	Protein Engineering to Investigate Developmental and Leukemic Phenotypes in ASXL1 Mutant Disease	Ojaswee Aryal ¹ , Thomas Köhnke ¹ , Emma Magee ² , Ravi Majeti ¹ Departments of Medicine (Division of Hematology, Cancer Institute, and Institute for Stem Cell Biology & Regenerative Medicine) ¹ and Chemical & Systems Biology ² , Stanford University
18	SPARK: AI Framework for Imputing Genome-Wide Somatic Mutations in Pan-Cancer Targeted Sequencing Data for Biomarker Discovery	Amirsaman Ashtari ¹ , Mohammad Shahrokh Esfahani ¹ Department of Radiation Oncology ¹ , Stanford University
19	ALDH2*2 Variant Mice Exhibit Increased Post-Surgical Pain and Inflammation	Mekdelawit Awoke ¹ , Bárbara B. Martins ¹ , Rafaela Chitarra Rodrigues Hell ¹ , Eric R. Gross ¹ Department of Anesthesiology, Perioperative & Pain Medicine ¹ , Stanford University
20	Beyond Canonical Carbon Catabolite Repression: Strain-Dependent Carbon Hierarchies in Commensal <i>E. coli</i>	Emma Ayala ¹ , Richa Sharma ¹ , Jonas Cremer ¹ Department of Biology ¹ , Stanford University
21	Does Adductor Canal Block Affect Landing Biomechanics and Strength Symmetry at Return to Sport After ACL Reconstruction?	Rod Azghadi ¹ , Jeff Morgan ² , Chao-Jung Hsu ² , Deborah Callahan ² , Kevin Shea ³ Departments of Human Biology ¹ , Motion Analysis & Sports Performance ² , and Pediatric Orthopaedic Surgery ³ , Stanford University

22	Investigating IL-7 and IL-15 Delivery Systems for T cell Immunotherapy	Ghazal Azhdari Mamooreh ¹ , Sarah Cavender ² , Ada Wong ¹ , Heather Ogana ¹ , Anusha Kalbasi ¹ Department of Radiation Oncology ¹ and Cancer Biology Program ² , Stanford University
23	Characterization of Lipid Exchange at the Red Blood Cell-Malaria Parasite Interface	Pakeeza Azizpor ¹ , Martin Dalling ¹ , Poulami Chatterjee ² , Laura M.K. Dassama ² , Matthias Garten ¹ Departments of Bioengineering ¹ and Chemistry ² , Stanford University
24	From Waste to Food: Engineering Sporulation in <i>Neurospora intermedia</i> for Enhanced Utility in Food Production	Anjana Balachandar ¹ , Elsa McElhinney ¹ , Braydon Black ¹ , Alessandra Massa ¹ , Vayu Hill-Maini ¹ Department of Bioengineering ¹ , Stanford University
25	Engineering an RNA-Activated Protease for Synthetic Biology	Michael Balagula ¹ , Ana Novacic ² , Shang-Jui Tsai ² , Alice Y. Ting ² Departments of Chemistry ¹ and Genetics ² , Stanford University
26	Patterning the Gut: Development of Mouse Enteric Descending Interneurons	Sophia Barnard ^{1,2} , Jacqueline L. Bendrick ^{2,3} , Julia A. Kaltschmidt ^{2,4} Bio-X Undergraduate Summer Research Program ¹ , Wu Tsai Neurosciences Institute ² , Neurosciences Interdepartmental Program ³ , and Department of Neurosurgery ⁴ , Stanford University
27	Computational Design of Peptide Macrocycles	Braxton Bell ¹ , Jongmin An ² , Marian Awadalla ² , Katherine Ferrara ² , Possu Huang ³ Departments of Chemistry ¹ , Radiology ² , and Bioengineering ³ , Stanford University
28	Netrin-G1 Coordinates Enteric Structural and Synaptic Development to Regulate Gut Behavior	Jacqueline L. Bendrick ^{1,2} , Sophia Barnard ^{2,3,4} , Jack H. Marciano ^{1,2} , Julia A. Kaltschmidt ^{2,5} Neurosciences Interdepartmental Program ¹ , Wu Tsai Neurosciences Institute ² , Program in Human Biology ³ , Bio-X Undergraduate Summer Research Program ⁴ , and Department of Neurosurgery ⁵ , Stanford University
29	Quadriceps Tendon Turndown Grafts for Pediatric Proximal Medial Patellar Restraints (PMPR) Reconstruction: Biomechanical Analysis	Paul Bergeron ¹ , Emma Sralla ¹ , Calvin Chan ¹ , Amishi Jobanputra ¹ , Brendon Mitchell ² , Amy Steele ¹ , Charles Chan ¹ , Molly Meadows ¹ , Marc Tompkins ³ , Yi-Meng Yen ⁴ , Theodore Ganley ² , Philip Wilson ⁵ , Henry Ellis ⁵ , Javier Masquijo ⁵ , Kevin Shea ¹ Department of Orthopaedic Surgery ¹ , Stanford University; Division of Orthopaedics ² , Children's Hospital of Philadelphia; Department of Orthopedic Surgery ³ , University of Minnesota Twin Cities; Department of Orthopedics & Sports Medicine ⁴ , Boston Children's Hospital; Scottish Rite for Children Sports Medicine ⁵
30	A Synthetic Pediatric Meniscus Reproduces Cadaveric Construct Ranking in Meniscus Root Repair	Paul Bergeron ¹ , Hubert Tuyishime ¹ , Bryan Khoo ¹ , Luis Fernando Viegas de Moraes Leme ¹ , Calvin Chan ¹ , Seth L. Sherman ¹ , Theodore J. Ganley ² , Kevin G. Shea ¹ Department of Orthopaedic Surgery ¹ , Stanford University; Division of Orthopaedic Surgery ² , Children's Hospital of Philadelphia
31	Design and Modeling of Engineered Self-Organized Bacterial Colonies Exhibiting Substance-Responsive Pattern Perturbations	Shai Bernard ¹ , Michaelle Mayalu ¹ Department of Mechanical Engineering ¹ , Stanford University

32	Evaluating DHODH Inhibition as a Therapeutic Strategy in B-Cell Acute Lymphoblastic Leukemia	Talia Besikof¹ , Milton Merchant ¹ , Yuxuan Liu ¹ , Kara Davis ¹ Department of Pediatrics ¹ , Stanford University
33	Inverse Problem for Reconstructing Despeckled Images with Sparse Linear Arrays in Pulse-Echo Ultrasound	Samuel Beuret¹ , Benjamin N. Frey ² , Jeremy J. Dahl ¹ Departments of Radiology ¹ and Applied Physics ² , Stanford University
34	Alzheimer's-Related Plasma Biomarkers, Hippocampal Volume, and Congenital Heart Defects in Individuals with Down Syndrome	Khushi Bhatia¹ , Jennifer Bruno ¹ Department of Psychiatry & Behavioral Sciences ¹ , Stanford University
35	Interferons Impart Divergent Metastatic Evolution and Therapy Responses	Cort B. Breuer^{1,2,3} , Grayson E. Rodriguez ⁴ , Marcos Labrado ^{1,2} , K. Christopher Garcia ^{4,5} , Nathan E. Reticker-Flynn ^{2,3} Immunology Program ¹ , Departments of Otolaryngology – Head & Neck Surgery ² and Molecular & Cellular Physiology ⁴ , Stanford Cancer Institute ³ , and Howard Hughes Medical Institute ⁵ , Stanford University
36	Machine Learning-Enhanced Pixel-Level Segmentation of Valvular Pathologies on Micro-Computed Tomography	Tse Yuan Chan^{1*} , Rodrigo Menna Costa ^{2*} , Mustapha El Zeini ¹ , Ines Ross Tacco ¹ , Madison Fang ¹ , Luigi E. Perotti ^{2,3,†} , Ian Y. Chen ^{1,†} (*equal contribution; †corresponding authors) Departments of Medicine (Cardiovascular Medicine) and Radiology, Stanford Cardiovascular Institute ¹ , Stanford University; Department of Mechanical & Aerospace Engineering ² and Biionix Cluster ³ , University of Central Florida
37	Blood-Based Biomarkers and Vascular Brain Changes in Down Syndrome-Associated Alzheimer's Disease	Kaavya Chandrasekhar¹ , Jennifer Bruno ¹ Department of Psychiatry & Behavioral Sciences ¹ , Stanford University
38	Fragmented Stroke Knowledge and Action-Readiness Gaps in a Campus Population	Hansen Chen¹ , Xiang Li ² , Nicole Burham ³ , Richard Reagin ³ , Rachelle Dugue ⁴ , Tonya Bliss ^{1*} , Gary Steinberg ^{1*} (*senior authors/equal contribution) Departments of Neurosurgery ¹ , Computer Science ² , and Neurology ⁴ and Stanford Health Care ³ , Stanford University
39	Identifying Microplastic-Induced Human Cardiovascular Toxicity Using an iPSC-derived Endothelial Cell Model	Jacob S. Chen¹ , Jingshan Gao ¹ , Shuai Sun ¹ , Joseph C. Wu ¹ Stanford Cardiovascular Institute ¹ , Stanford University
40	Putting the Pieces Together: Optimizing a Split Transcription Factor System for Precision Gene Regulation in Plants	Jacqueline Chen , Isabel Goldaracena ² , Jennifer A. N. Brophy ² Departments of Chemical Engineering ¹ and Bioengineering ² , Stanford University
41	Engineering of Potent Drug-Induced Degradation Systems	Jiabei Chen¹ , Yulai Liu ¹ , Xiaojing Gao ¹ Department of Chemical Engineering ¹ , Stanford University
42	One Receptor, Many Functions: Dissecting the Multidomain Adhesion GPCR Flamingo Across Development	Jiayang Chen¹ , Yashasvi Sehgal ² , Pablo Sanchez Bosch ¹ , Alexander R. Dunn ³ , Jeffrey D. Axelrod ¹ Departments of Pathology ¹ and Chemical Engineering ³ , Stanford University; Monta Vista High School ²

43	From Genes to Images: Cross-Species Cell State Alignment via Optimal Transport-based Gene Layouts	Sijie Chen ¹ , Md Tauhidul Islam ¹ , Lei Xing ¹ Department of Radiation Oncology ¹ , Stanford University
44	State Level Distribution Shift in Diabetes Risk Prediction: A Simulation Study	Peter Childs ¹ , Sherri Rose ¹ Department of Health Policy ¹ , Stanford University
45	<i>In Situ</i> Rheological Monitoring of Diffusion-Controlled Hydrogel Crosslinking for Embedded 3D Bioprinting	Fotis Christakopoulos ¹ , Audrey Shih ² , Stella Chung ² , Carla Huerta-Lopez ¹ , Lucia Brunel ² , David Myung ^{2,3} , Gerald Fuller ² , Sarah Heilshorn ¹ Departments of Materials Science & Engineering ¹ , Chemical Engineering ² , and Ophthalmology ³ , Stanford University
46	Dynamic Neural Plasticity and Brain Network Reorganization in Braille and Music Training Using Graph Theory Analysis	Camille Chu ¹ , Hamed Honari ¹ , David Hong ¹ Department of Psychiatry & Behavioral Sciences ¹ , Stanford University
47	Octopi-QA: A Multifaceted Approach for Quality Assurance of Field-Sampled Blood Smears	Emily Chu ¹ , Alexa Chen ² , Ziba Ahamad ² , Pranav Shrestha ³ , Alyssa Mathiowetz ² , Manu Prakash ² Departments of Biology ¹ and Bioengineering ² , Stanford University; Cephl Inc. ³
48	Behavioral Rhythm in Truly Sustained Visuospatial Attention	Haley Chu ¹ , Haopei Yang ¹ , Anthony D. Wagner ¹ Department of Psychology ¹ , Stanford University
49	Linking Whole-Body MRI to Biomechanical Function across Neuromuscular Disease Phenotypes	Audrey Chun ¹ , Anna Yao ¹ , Melina Rogers ¹ , Shelby Vogt-Domke ¹ , Parker Ruth ² , Sydney Covitz ³ , Eddo Wesselink ⁴ , Kenneth Weber ⁴ , John Day ¹ , Constance de Monts ¹ , Tina Duong ¹ Neuromuscular Division ¹ , Departments of Computer Science ² and Bioengineering ³ , and Division of Pain Medicine ⁴ , Stanford University
50	Using RNA Binding Small Molecules to Inhibit Rhabdomyosarcoma Fusion Oncogene	Rachel Clark ¹ , Shaifaly Parmer ² , Soumili Dey ³ , John S. Schneekloth Jr. ² , Javed Khan ³ , Yong Yean Kim ¹ Department of Pediatrics (Division of Pediatric Hematology/Oncology) ¹ , Stanford University; Chemical Biology Laboratory, Center for Cancer Research ² and Oncogenomics Section, Genetics Branch ³ , National Cancer Institute
51	Simulating and Tuning a Double-Transmon Coupler for Entangling Gates in Dual-Rail Erasure Qubits	J. Grant Conroy ¹ , Victor Wei ² , David I. Schuster ² Departments of Physics ¹ and Applied Physics ² , Stanford University
52	Organic Photovoltaics for Photostimulation of Tissues	Han Cui ¹ , Jiuyun Shi ² , Xuandi Hou ¹ , Guosong Hong ¹ Departments of Materials Science & Engineering ¹ and Chemical Engineering ² , Stanford University
53	Synthetic GPCRs to Map and Interrogate Location-Specific Signaling Networks	Brynne Currier ¹ , Gabriele Kockelkoren ¹ , Alice Ting ¹ Department of Genetics ¹ , Stanford University
54	Knotless All-Suture Anchors Provide Non-Inferior Fixation for Meniscal Root Repair in a Pediatric Cadaveric Knee Model	Greta Cywińska ¹ , Lauren Ginn ¹ , Akbar Syed ² , Oren Morgan ¹ , Maximilian Müller ³ , Kevin Xu ² , Amishi Jobanputra ¹ , Calvin Chan ¹ , Amy Steele ¹ , Theodore Ganley ² , Henry Ellis ⁴ , Philip Wilson ⁵ , Kevin Shea ¹ Department of Orthopaedic Surgery ¹ , Stanford University; Division of Orthopedic ² , Children's Hospital of Philadelphia; Department of Orthopedic

		Surgery ³ , Hospital for Special Surgery; Department of Orthopedic Surgery ⁴ , Scottish Rite for Children Sports Medicine; Department of Orthopaedic Surgery ⁵ , Scottish Rite for Children
55	Pediatric Radial Meniscal Tears - Are Hashtag Repair Patterns Adequate?	Greta Cywińska ¹ , Oren Morgan ¹ , Lauren Ginn ¹ , Maximilian Müller ² , Akbar Syed ³ , Kevin Xu ³ , Paul Bergeron ¹ , Amishi Jobanputra ¹ , Calvin Chan ¹ , Marc Tompkins ⁴ , Henry Ellis ⁵ , Philip Wilson ⁶ , Theodore Ganley ³ , Kevin Shea ¹ Department of Orthopaedic Surgery ¹ , Stanford University; Department of Orthopedic Surgery ² , Hospital for Special Surgery; Division of Orthopedic ³ , Children's Hospital of Philadelphia; Department of Orthopedic Surgery ⁴ , University of Minnesota Twin Cities; Department of Orthopedic Surgery ⁵ , Scottish Rite for Children Sports Medicine; Department of Orthopaedic Surgery ⁶ , Scottish Rite for Children
56	Investigating Developmental Influences on the Locus Coeruleus–Norepinephrine System	Melody Dailey ¹ , David Cheng-Hao Wang ¹ , Robert C. Malenka ¹ Department of Psychiatry & Behavioral Sciences ¹ , Stanford University
57	A Step Toward Longer Lasting Implants: Exploring the Effects of Increased Wnt Signaling on Peri-Implant Epithelium Barrier Functions	Baran Daliri ¹ , Fabiana Aellos ² , Bo Liu ² , Jill A. Helms ² Departments of Human Biology ¹ and Surgery ² , Stanford University
58	Optimizing Zinc-Chelating GNF Compounds for β -Cell-Targeted Drug Delivery and Regeneration	Isabella Dang ¹ , Sooyeon Lee ¹ , Justin P Annes ^{1,2} Department of Medicine (Division of Endocrinology) ¹ and Stanford ChEM-H and Endocrine Oncology ² , Stanford University
59	Sexual Dimorphism in Stratum Corneum Barrier Function Mediates Water Storage Necessitating Personalized Moisturization	Ashley David ¹ , Sebastian Hendrickx-Rodriguez ² , Rachele Pia Russo ¹ , Reinhold H. Dauskardt ¹ Departments of Materials Science & Engineering ¹ and Mechanical Engineering ² , Stanford University
60	Role of ALDH2 in Ethanol-Induced FGF21 Secretion	Pedro De La Torre ¹ , Candida L. Goodnough ¹ , Eric R. Gross ¹ Department of Anesthesiology, Perioperative & Pain Medicine ¹ , Stanford University
61	Multiplexed Microfluidics for High-Throughput Force Spectroscopy	Matthew DeJong ¹ , Yujia Bian ¹ , Alexander Dunn ^{1,2*} , Polly Fordyce ^{3,4,5,6*} (*co-corresponding authors) Departments of Chemical Engineering ¹ , Genetics ³ and Bioengineering ⁴ , Cardiovascular Institute ² , and Sarafan ChEM-H ⁵ , Stanford University; Chan Zuckerberg BioHub ⁶
62	Investigating PFAS Transport and Toxicity at the Human Blood–Brain Barrier	Jaydon Deras ¹ , Yunbeen Bae ¹ , Eulim Kang ¹ , Rebecca Pinals ^{1,2} Department of Chemical Engineering ¹ and Sarafan ChEM-H Institute ² , Stanford University
63	Low- and Middle-Income Countries (LMIC) Benchmark: Prompt Task Type, Not Context, Drives Large Language Model (LLM) Performance in Maternal & Neonatal Health	Diba Dindoust ¹ , Ivana Maric ¹ , Gary Darmstadt ¹ Departments of Bioengineering, Pediatrics, and Medicine (Division of Neonatal & Developmental Medicine) ¹ , Stanford University

64	The Role of Pregnancy-Related Comorbidities in Maternal Health Disparities Among Asian American/Pacific Islanders	Mekhala V. Dissanayake ¹ , Maya B. Mathur ^{1,2} , Elliott K. Main ³ , Suzan L. Carmichael ^{1,3} Departments of Pediatrics ¹ and Obstetrics & Gynecology ³ and Quantitative Sciences Unit ² , Stanford University
65	Investigating the Uptake Mechanism of an Erythroid Targeted Delivery Platform	Nailah Donatto ¹ , Jeandele Elliot ^{1,2} , Laura M. K. Dassama ^{3,4} Departments of Chemical Engineering ¹ , Biomedical Data Science ² , Chemistry ³ , and Microbiology & Immunology ⁴ , Stanford University
66	Towards a Behavioral Phenotype of Epilepsy in the WAG/Rij Rat	Ashley Dong ^{1,4} , Paul J. Steffan ^{2,3} , Dhiaa Ahmad Al-Asadi ⁴ , Saumil Patel ² , Zhe Li ² , Lily Chamakura ⁵ , Andreas S. Tolias ² Stanford Sapp Family CS Bio-X Undergraduate Summer Research Program ¹ and Department of Ophthalmology ² , Stanford University ⁴ ; Program for Quantitative & Computational Biosciences ³ and Department of Neurosurgery ⁵ , Baylor College of Medicine
67	Resolving Alzheimer's Disease Ultra-Structure Through Cryogenic Electron Tomography	Ziwei Duan ¹ , Ian Cooney ¹ , Pingting Liu ¹ , Lisa Xia Li ² , Ching Chieh Chou ² , Cathy Hou ³ , Sanket Gupte ³ , Serena Yeung-Levy ³ , Michael Schmid ⁴ , Judith Frydman ² , Wah Chiu ¹ Departments of Bioengineering ¹ , Biology ² , and Computer Science ³ and SLAC National Lab ⁴ , Stanford University
68	Engineering Genetically Encoded Ethylene Receptors in Plants	John Eden-Sung ¹ , Will Dwyer ² , Jose Dinneny ² Departments of Computer Science ¹ and Biology ² , Stanford University
69	The Impact of Contraceptive Pricing on Birth Outcomes in Colombia	Eliza Ennis ¹ , Natalia Serna ¹ Department of Health Policy ¹ , Stanford University
70	Lytic Phage Activity Against <i>Pseudomonas</i> Cultured in Sputum versus Conventional Media	Tia Marie Evans ^{1,2} , Aaryan Harshith ^{1,2} , Jessica Sacher ^{1,2} , Paul Bollyky ^{1,2} Departments of Infectious Disease ¹ and Microbiology ² , Stanford University
71	From Structure to Function: Predicting Drug-Induced Cardiotoxicity Using iPSC Models and Machine Learning	Haley M. Fernandez ¹ , Sajeda Musa Yagoub ¹ , Xuekun Wu ¹ , Renke Tan ¹ , Joseph C. Wu ^{1,2,3*} (*corresponding author) Stanford Cardiovascular Institute ¹ ; Institute for Stem Cell Biology & Regenerative Medicine ² ; Department of Medicine, (Division of Cardiovascular Medicine) ³ , Stanford University
72	Exploring Repetitive Negative Thinking in OCD: Dimensional Variability and Role in Predicting Response to Ketamine Infusion	Nicolette Fierro ¹ , Paula Muñoz Rodríguez ² , Daniel Bello ² , Hannah Raila ³ , Carolyn Rodriguez ^{2,4} Departments of Psychology ¹ and Psychiatry & Behavioral Sciences ² , Stanford University; Department of Psychology ³ , University of California Santa Cruz; VA Palo Alto Health Care System ⁴
73	Saline Cryomapping Catheter Design: Insulation, Reference Electrode, Flexible Fiber, and Contact-Force Design Studies for Precision Arrhythmia Mapping	Gabriella Fish ¹ , Sofia Gurgel ² , Alex Xia ³ , Meghedi Babakhanian ² , Rahul Penumaka ² , Cel Welch ⁴ , Paul Wang ² Departments of Mechanical Engineering ¹ , Medicine (Division of Cardiovascular Medicine) ² ,

		Bioengineering ³ , and Chemical Engineering ⁴ , Stanford University
74	Matrix Stress Relaxation Induces Macrophage Immunosuppression in 3D Brain-Mimicking Hydrogels	Mark Fleck ¹ , Audrey Jung ² , Sauradeep Sinha ³ , Abena Peasah ² , Sarah Loveland ¹ , Fan Yang ^{2,4} Departments of Chemistry ¹ , Bioengineering ² , and Orthopaedic Surgery ⁴ , Stanford University; St. Jude's Children's Research Hospital ³
75	Development of a Microfluidic Platform for Tumor Vascularization	Andrea Sofia Flores Pérez ¹ , Rohollah Nasiri ² , Guillem Pratx ² , Yunzhi Peter Yang ^{1,3,4} Departments of Bioengineering ¹ , Radiation Oncology & Medical Physics ² , Orthopaedic Surgery ³ , and Materials Science & Engineering ⁴ , Stanford University
76	Neurocardiac Assembloids to Investigate Autonomic Dysfunction in Duchenne Muscular Dystrophy	Lorenzo Fontanelli ^{1,2} , Antonella Cecchetti ³ , Alessandra Falleni ⁵ , Gabriele Siciliano ⁶ , Fabio A. Recchia ² , Joseph C. Wu ¹ Stanford Cardiovascular Institute ¹ , Stanford University; Health Science Interdisciplinary Centre ² , Scuola Superiore Sant'Anna; Departments of Biology ³ and Experimental Medicine ⁶ and Interdepartmental Center for Electron Microscopy ⁴ , Università di Pisa; Institute of Clinical Physiology ⁵ , National Council of Research, Italy
77	Tunable, Isoform-Selective Chemogenetic Modulation of Cav1.3	Aaron Forman ¹ , Justin Du Bois ¹ Department of Chemistry ¹ , Stanford University
78	Molecular Profiling of Vitreous and Aqueous Humor in Patients With Retinal Detachment	Joel A. Franco ¹ , Tsai-Chu Yeh ¹ , Madhumeeta Chadha ¹ , Akanksha Arora ¹ , Michael Tsai ¹ , Soo Hyeon Lee ¹ , Vinit B. Mahajan ¹ Department of Ophthalmology ¹ , Stanford University
79	Protoplasting and <i>Agrobacterium tumefaciens</i> Mediated Transformation Protocols for Genetically Engineering <i>S. pungens</i> and <i>L. bicolor</i>	Theo Frano ¹ , Rolando Perez ² , Jay Yeam ² , Kabir Peay ² Departments of Bioengineering ¹ and Biology ² , Stanford University
80	Large-Scale Radiologist Evaluation of Iterative Model-Based Distributed Aberration Correction on 319 <i>in Vivo</i> Human Liver Acquisitions	Benjamin N. Frey ¹ , Kevin E. Lindsay ² , Amir H. Sarrami ² , Hoda S. Hashemi ² , Martin Schneider ² , Sergio J. Sanabria ² , Alice C. Fan ² , Christian R. Hoerner ² , Shreyas Vasanaawala ² , Jeremy J. Dahl ² Departments of Applied Physics ¹ and Radiology ² , Stanford University
81	Developing a DICOM-to-BIDS Workflow for Multimodal PET/MRI Data	Emelina Fry ¹ , Moss Zhao ² Stanford University ¹ and Department of Neurosurgery ¹ , Stanford University
82	Characterizing CLSTN3B and UCP1 Coevolution as Key Contributors to Adaptive Non-Shivering Thermogenesis	Jacob Fyda ¹ , Michael J. Gaudry ² Department of Genetics ¹ , Stanford University; Department of Molecular Biosciences ² , Stockholm University
83	Impact of Senescence on Breast Cancer Invasion	Lorenza Garau Paganella ¹ , Cole James Allan ¹ , Rob West ² , Ovijit Chaudhuri ¹ Departments of Mechanical Engineering ¹ and Pathology ² , Stanford University

84	First-Principles Mapping of Regional Fermentation Physiology in the Human Intestine with Ingestible Capsules	Théo Gervais ¹ , Jonas Cremer ¹ , Sean Spencer ² Departments of Biology ¹ and Medicine ² , Stanford University
85	Luggage Tag Suture Anchor Fixation Improves Yield and Ultimate Failure Loads in Pediatric Tibial Spine Fractures to Support Early Motion and Prevent Arthrofibrosis	Lauren Ginn ^{1,2} , Alan Anaya Gallegos ^{1,2} , Greta Cywińska ^{1,2} , Oren Morgan ^{1,2} , Emma Sralla ^{1,3} , Maximilian Müller ⁴ , Thomas Johnstone ^{1,2} , Akbar Syed ⁵ , Paul Bergeron ^{1,3} , Amishi Jobanputra ¹ , Calvin Chan ¹ , Amy Steele ¹ , Theodore Ganley ⁵ , Philip Wilson ^{6,7} , Henry Ellis ^{6,7} , Kevin Shea ¹ Department of Orthopaedic Surgery ¹ , School of Medicine ² , and Wu Tsai Human Performance Alliance ³ , Stanford University; Department of Trauma Surgery, Orthopaedics & Sports Traumatology ⁴ , BG Klinikum Hamburg; Division of Orthopaedics ⁵ , Children's Hospital of Philadelphia; Scottish Rite for Children ⁶ , Dallas; Department of Orthopaedic Surgery ⁷ , UT Southwestern Medical Center
86	What Really Drives Hypertrophy in Hypertrophic Cardiomyopathy (HCM)?	Prerna Giri ^{1,2} , Giovanni Fajardo ^{1,2} , Magda Zaoralova ³ , Joseph Yoniles ⁴ , Carlos Vera ⁵ , Abrar Bhat ⁵ , Paul Heinrich ² , Sean Wu ^{2,6} , Peter Dahlberg ³ , Alexander R. Dunn ⁵ , Daniel Bernstein ^{1,2} Departments of Pediatrics ¹ , Chemical Engineering ⁵ , and Medicine ⁶ and Cardiovascular Institute ² , Stanford University; Division of CryoEM & Bioimaging, SSRL ³ and Department of Biophysics ⁴ , SLAC National Accelerator Laboratory
87	Synthetic Chromatin and Histone Homeostasis: Rescue of Coordinated Gene Expression without Expressing the Gene	Harsh Goar ¹ , Rico Gamuyao ¹ , Wendy Gonzalez ¹ , Lavanya Vumma ¹ , Caiden Golder ¹ , Jackson Anderson ¹ , Shreenidhi Rajkumar ¹ , Joshua Gruber ¹ Department of Medicine (Oncology) ¹ , Stanford University
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107	Exploring Optimization Algorithms to Estimate Time Skew, Time Walk, and Phantom Configuration in PET-Insert PET-Coil Gen II	James Duyan Hô ¹ , Muhammad Nasir Ullah ^{2,3} , Garry Chinn ^{2,3} , Grant Hee-Sung Park ^{2,3} , Eegan Ram ¹ , Wonu Park ¹ , Craig S. Levin ^{1,2,3,4,5,6}

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157	Increase in Circulating Extracellular Mitochondria Following Conditioning for Hematopoietic Stem Cell Transplantation Is Associated with Graft-Versus-Host Disease	Ivan Lopez ¹ , Vijith Vijayan ^{1,6} , Hao Yan ³ , Laura Tetri ¹ , Shelby Burk ¹ , Giulia Barbarito ⁴ , Linda Oppizzi ⁴ , Upinder Kaur Gill ⁴ , Maninder Singh ⁴ , Nivedita Kunte ⁵ , Noor Ul-Huda Akhter ⁴ , Megan Yuan ⁴ , Iris Chang ⁴ , Saori Takeda ⁴ , Cynthia Montiel ⁴ , Daniel Tawfik ¹ , Alice Bertaina ^{2,4} , Kenneth Weinberg ² , Bereketab Haileselassie ¹ Departments of Pediatric Critical Care Medicine ¹ , Pediatric Hematology & Oncology ² , Medicine (Blood & Marrow Transplantation) ³ , and Pediatric Stem Cell Transplantation & Regenerative Medicine ⁴ and Pediatric Center for Definitive & Curative Medicine ⁵ , Stanford University; Department of Internal Medicine IV – Nephrology & Hypertension ⁶ , University Medical Center Schleswig-Holstein

158	Cancer Reprograms the Remote Vascular Microenvironment to Promote Atherosclerosis	Lingfeng Luo^{1,2}, Changhao Fu^{1,2}, Kai-Uwe Jarr^{1,3,4}, Richard Baylis⁵, Virginia H. Sun⁵, Julius Heemelaar⁵, Moritz von Scheidt^{6,7}, Daniela Ramirez^{6,7}, Johannes Krefting^{6,7}, Nadja Sachs^{7,8}, Justus Leonard Wettich^{7,9}, Hanna Winter^{7,9}, Hua Gao^{1,2}, Fudi Wang^{1,2}, Shaunak Adkar^{1,2}, Allen Haas¹⁰, Mason Gonzalez^{1,2}, Kevin T. Nead^{11,12}, Lars Mägdefessel^{7,9,13}, Heribert Schunkert^{6,7}, Tomas G. Neilan⁵, Nicholas J. Leeper^{1,2,14} Departments of Surgery (Division of Vascular Surgery)¹ and Medicine (Division of Cardiovascular Medicine)¹⁴ and Stanford Cardiovascular Institute² Stanford University; Department of Cardiology, Angiology, & Pneumology³, Heidelberg University Hospital; German Center for Cardiovascular Research (DZHK)⁴, Partner Site Heidelberg/Mannheim; Department of Medicine⁵, Massachusetts General Hospital; Department of Cardiology⁶, Deutsches Herzzentrum München, Technische Universität München; German Center for Cardiovascular Research (DZHK)⁷, Partner Site Munich Heart Alliance; Department of Vascular & Endovascular Surgery⁸ and Institute of Molecular Vascular Medicine⁹, TUM Klinikum rechts der Isar, Technical University Munich; Departments of Health Services Research¹⁰, Radiation Oncology¹¹, and Epidemiology¹², University of Texas MD Anderson Cancer Center; Department of Medicine¹³, Karolinska Institute and University Hospital Solna
159	Bio-orthogonal Chemical Anchoring for Rapid Repair of Persistent Corneal Epithelial Defect	Yingchang Ma¹, Vineet Joshi¹, Euisun Song¹, Uiyong Han¹, Kyeongwoo Jang¹, Adam Nelson¹, Carolyn Bertozzi², David Myung¹. Departments of Ophthalmology¹ and Chemical & Systems Biology, Sarafan ChEM-H and Howard Hughes Medical Institute², Stanford University
160	Time Is Brain: Can Circadian Timing Enhance Recovery After Human Neural Stem Cell Therapy for Chronic Stroke?	Yuyo Maeda¹, Pardes Habib¹, Xibin Liang¹, Min Joo Kim¹, Nicole Johnston¹, Jieun Kim², Tonya M. Bliss¹, Gary K. Steinberg¹ Department of Neurosurgery and Stanford Stroke Center¹ and Neurosciences Preclinical Imaging Lab, Wu Tsai Neurosciences Institute², Stanford University
161	Comparison of Molecular Responses to Autologous and Allogeneic CD19 CAR-T Cell Therapy in Systemic Lupus Erythematosus	Evan Maestri^{1,2,3}, Holly McCann^{2,3,4}, Hong Zheng^{2,3}, Andreas Kerschbaumer^{2,5}, Andrew R. Moore^{2,3,6}, Paul J. Utz⁵, Purvesh Khatri^{1,2,3} Immunology Program¹, Institute for Immunity, Transplantation & Infection², Division of Computational Medicine³, Biomedical Data Science Program⁴, Division of Immunology & Rheumatology⁵, and Division of Pulmonary, Allergy & Critical Care Medicine⁶, Stanford University
162	Engineering Intercellular Mitochondrial Transfer to Enhance Energy Metabolism via Cell Therapy	Lorenzo Magni¹, Xinyi Chen¹, Chris Mathy², Lars Steinmetz², Lei S. (Stanley) Qi¹ Departments of Bioengineering¹ and Genetics², Stanford University
163	Titanium and Platinum Coatings Reduce Inflammation Induced by Gold on Subretinal Prosthesis	Vladimir Mamchik^{1,2,3}, Mohajeet B. Bhuckory^{2,3}, Nicharee Monkongpitukkul^{2,4}, Davis Pham-

		Howard ^{2,3} , Viktoryia Shautsova ^{3,5} , Linh Mai Vu ³ , Ludwig Galambos ³ , Emma Butt ⁶ , Keith Mathieson ⁶ , Theodore Kamins ⁷ , Daniel Palanker ^{2,3} Departments of Biology ¹ , Ophthalmology ² , and Electrical Engineering ⁷ and Hansen Experimental Physics Laboratory ³ , Stanford University; Department of Ophthalmology ⁴ , Prince of Songkla University; Department of Material Science ⁵ , University of Central Florida; Department of Physics ⁶ , University of Strathclyde
164	Cross Correction of CLN5 Batten Disease in a Mouse Model via Microglial Replacement Therapy	Nick Manfred ^{1,2,3,4,5} , Danwei Wu ⁶ , Eshaan Rawat ⁷ , Juila Heiby ⁸ , Alessandro Ori ⁹ , Marius Wernig ^{10,11,12} , Monther Abu-Remaileh ^{1,2,3,4,13} Departments of Chemical Engineering ¹ , Genetics ² , Neurology & Neurological Sciences ⁶ , Pathology ¹⁰ , and Chemical & Systems Biology ¹¹ , Institute for Chemistry, Engineering & Medicine for Human Health (Sarafan ChEM-H) ³ , Wu Tsai Neurosciences Institute ⁴ (The Phil & Penny Knight Initiative for Brain Resilience ¹³), Neurosciences Interdepartmental Program ⁵ , and Institute for Stem Cell Biology & Regenerative Medicine ¹² , Stanford University; Harvard Medical School ⁷ ; Leibniz Institute on Aging, Fritz Lipmann Institute ⁸ ; Genentech Inc. ⁹
165	OmniVoxel: A Spatial Multi-omic Pipeline Maps the Biological Landscape of Idiopathic Parkinson's Disease	Nick Manfred ^{1,2,3,4,5*} , Misha Khan ^{6,7*} , Alina Isakova ^{6,7} (*equal contribution) Departments of Chemical Engineering ¹ , Genetics ² , and Bioengineering ⁶ , Sarafan ChEM-H ³ , Wu Tsai Neurosciences Institute ⁴ (Phil & Penny Knight Initiative for Brain Resilience ⁷), and Neurosciences Interdepartmental Program ⁵ , Stanford University
166	Elucidating the Role of p53 in Suppressing Pancreatic Ductal Adenocarcinoma	Jessica L. Mann ¹ , Kathryn J. Hanson ^{1,2} , Laura D. Attardi ^{1,2} Departments of Radiation Oncology ¹ and Genetics ² , Stanford University
167	Changes in the Regional Cytoarchitecture of the Aging Enteric Nervous System	Jack Marciano ^{1,2,3} , Julia A. Kaltschmidt ^{3,4} Neuroscience Interdepartmental Program ¹ , Arc Institute ² , Wu Tsai Neuroscience Institute ³ , and Department of Neurosurgery ⁴ , Stanford University
168	Establishing a Human iPSC-derived Neuronal Model for Dissecting West Nile Virus Neurovirulence	Alejandro Matias ^{1,2} , Anil Singapuri ³ , Sunny Lee ³ , Christopher M. Barker ³ , Carolina Arias ² , Ruth Huttenhain ¹ Department of Molecular & Cellular Physiology ¹ , Stanford University; CZ Biohub ² ; School of Veterinary Medicine ³ , University of California Davis
169	Optimization of Workflow for Functional CRISPRi Screen Using a dCas9-KRAB Human Pancreatic Beta-cell (EndoC-βH1) Line	Esmeralda Matias ¹ , Tamadher A. Alghunaim ¹ , Swaraj Thaman ¹ , Jing Yang ¹ , Thiago M. Batista ² , Melina Claussnitzer ^{2,3} , Anna L. Gloyn ^{1,4,5} Departments of Pediatrics (Division of Endocrinology ¹) and Genetics ⁴ and Stanford Diabetes Research Center ⁵ , Stanford University; Broad Institute of MIT and Harvard, Cambridge ² ; Diabetes Unit & Center for Genomic Medicine ³ , Massachusetts General Hospital

170	Reading the Liver's Age Through Its Perfusate: Using Senescence Biomarkers to Estimate Biological Age of Deceased Donor Livers	Alyssa McAdams ¹ , Anh Nguyen ¹ , Bella Hsieh ¹ , Omer Saleh ¹ , Ryan Lee ¹ , Joshua Badshah ¹ , Varvara A. Kirchner ¹ Department of Surgery (Division of Abdominal Transplant Surgery) ¹ , Stanford University
171	Personalized CT Organ Dose Estimation from Scout Images	Maria Jose Medrano ¹ , Abdullah-Al-Zubaer Imran ¹ , Sen Wang ¹ , Grant Stevens ² , Justin Ruey Tse ¹ , Adam Wang ^{1,3} Departments of Radiology ¹ and Electrical Engineering ³ , Stanford University; GE HealthCare ²
172	Development of a Bead-Based Hybridization Capture Platform for a Point-of-care Pharmacogenomic Assay	Sarah Mazher Mian ¹ , Daniela Lozano-Amado ² , Kesia Esther da Silva ² , Jason R. Andrews ² Stanford Bio-X USRP ¹ and Department of Medicine (Division of Infectious Diseases & Geographic Medicine) ² , Stanford University
173	Can Vibrotactile Stimulation Drive Brain Glymphatic Clearance?	Pardis Miri ¹ , Mihály Vöröslakos ² , György Buzsáki ² , Michael Snyder ¹ Department of Genetics ¹ , Stanford University; Department of Neuroscience ² , NYU School of Medicine
174	Iliotibial Band Reconstruction of the Anterior Meniscotibial Ligament Complex for Pediatric Meniscus Rim Instability	Oren A. Morgan ¹ , Philip Wilson ² , J. Javier Masquijo ³ , Henry Ellis ² , Kevin Shea ⁴ School of Medicine ¹ and Department of Orthopaedic Surgery (Pediatric Orthopaedics) ⁴ , Stanford University; Scottish Rite for Children ² , Dallas; Scottish Rite for Children ³ , Frisco
175	A Density Map of the Pediatric Proximal Tibia	Oren A. Morgan ¹ , Lauren Ginn ¹ , Greta Cywinska ¹ , Maximillian Mueller ² , Calvin Chan ³ , Craig Klinger ⁴ , Zachary Lin ³ , Amishi Jobanputra ³ , Kevin G. Shea ³ School of Medicine ¹ and Department of Orthopaedic Surgery (Pediatric Orthopaedics) ³ , Stanford University; Department of Trauma Surgery, Orthopaedics & Sports Traumatology ² , BG Klinikum Hamburg; Department of Orthopaedic Surgery ⁴ , Hospital for Special Surgery
176	Probing Extracellular Domain Dynamics in Ligand Binding and Activation of the GLP-1 Receptor	Saikiran Motati ¹ , Feng Shi ¹ , Brian Kobilka ¹ Department of Molecular & Cellular Physiology ¹ , Stanford University
177	Exploring Functional Divergence in Human and Chimpanzee Endothelial Cells Identifies a Novel Regulator of LDL Uptake	Jeffrey Naftaly ¹ , Alex Starr ¹ , Hunter Fraser ¹ , Kristy Red-Horse ^{1,2} Department of Biology ¹ , Stanford University; Howard Hughes Medical Institute ²
178	Human Brain Organoid NAMs for CNS Drug Discovery	Dhriti Nagar ¹ , Li Li ¹ , Alyssa Puno ¹ , Jongbin Choi ¹ , Meghali Aich ¹ , Yusuke Hori ¹ , Anca M. Pașca ¹ Department of Pediatrics (Division of Neonatal & Developmental Medicine) ¹ , Stanford University
179	Tumor-on-a-Chip Models for Radiotherapy Research: From Hypoxia-Induced Radioresistance to Vascularized Models and Radioembolization	Rohollah Nasiri ¹ , Andrea Sofia Flores Perez ³ , Myra Kurosu Jalil ² , Hieu Thi Minh Nguyen ¹ , Sindy K.Y. Tang ³ , Yunzhi Peter Yang ² , Guillem Pratx ^{1*} (*corresponding author) Departments of Radiation Oncology ¹ , Bioengineering ² , and Mechanical Engineering ³ , Stanford University

180	Targeted O-GlcNAcylation enables functional rewiring of c-Myc	Tongyang Xu ¹ , Zhihao Guo ¹ , Dean W. Felsher ² , Billy Wai-Lung Ng ^{1,2*} (*corresponding author) School of Pharmacy ¹ , The Chinese University of Hong Kong; Department of Medicine (Division of Oncology) ² , Stanford University
181	Investigating Methods to Increase Endometrial Model Viability	Kenza Ngatchou ¹ , Zach Michel ¹ , Matteo Molè ¹ Department of Obstetrics & Gynecology ¹ , Stanford University
182	Myelin Quantification in Human Hippocampi with Alzheimer's Disease Using Small-Angle X-Ray Scattering	Sophie Nguyen ¹ , Michael Zeineh ¹ , Marios Georgiadis ¹ Department of Radiology ¹ , Stanford University
183	Modeling the Tumor Microenvironment in Patient-derived Pancreatic Ductal Adenocarcinoma Organoids	Alex Ninomiya , Juhyung Park ¹ , Calvin Kuo ¹ Division of Hematology ¹ , Stanford University
184	Standalone Augmented Reality Neuronavigation System for Accurate Pulse Delivery in Transcranial Magnetic Stimulation	Wally L. Niu ¹ , Christopher C. Cline ² , Bruce Daniel ³ , Christoph Leuze ³ Departments of Bioengineering ¹ , Psychiatry & Behavioral Sciences ² , and Radiology ³ , Stanford University
185	Histology of Normal and Atypical Tissues in Siberian Hamsters	Yujeong Noh ¹ , José G. Vilches-Moure ¹ Department of Comparative Medicine ¹ , Stanford University
186	Divergent Effects of Optineurin E50K Mutation and Deficiency on Neurovisual Aging	Rozina Noristani ¹ , Muneeb. A. Faiq ^{1,2} , Thajunnisa A. Sajitha ² , Vishu Adi ² , Crystal Liu ² , Jeffrey R. Sims ² , Shannon Fung ¹ , Dominick Forlenza ² , Carlo Parra ² , Da Ma ³ , Henry C. Tseng ⁴ , Kevin C. Chan ^{1,2} Department of Ophthalmology (Spencer Center for Vision Research, Byers Eye Institute) ¹ , Stanford University; Department of Ophthalmology & Radiology ² , Neuroscience Institute, Tech4Health Institute, New York University; Wake Forest University School of Medicine ³ ; Department of Ophthalmology ⁴ , Duke University
187	Fiberless Photometry of Neurotransmitters in vivo with GPCR Ligand Bioluminescent Indicators	Presenter: Daniel Oh ³ ; Pengli Wang ¹ , Yan Wu ² , Lan Xiang Liu ³ , Chao Gao ⁴ , Thomas A. Kirkland ⁵ , Yichi Su ^{6,7*} , Michael Z. Lin ^{2,3,8,9*} (*corresponding authors) Departments of Chemical Engineering ¹ , Bioengineering ² , Neurobiology ³ , Pediatrics ⁸ , and Chemical & Systems Biology ⁹ , Stanford University; Promega Corporation ⁴ , San Luis Obispo; Promega Corporation ⁵ , Madison; Institute for Translational Brain Research ⁶ , State Key Laboratory of Medical Neurobiology, MOE Frontiers Center for Brain Science, Fudan University; Department of Nuclear Medicine ⁷ , Zhongshan Hospital
188	Phagemaxxing: Guided Evolution Against Multi-Drug-Resistant <i>P. aeruginosa</i>	Rhys Ota ¹ , Lucy Zhang ² , Tiffany Luong ¹ , Ovijit Chaudhuri ³ , Paul Bollyky ¹ Departments of Infectious Diseases ¹ , Materials Science ² , and Mechanical Engineering ³ , Stanford University
189	History- and Dose-Dependent Effects of a Cannabinoid on Learning	Christopher Owens ¹ , Amin Shakhawat ¹ , Natalia Cantu ¹ , Jennifer L. Raymond ¹ Department of Neurobiology ¹ , Stanford University

190	Non-Destructive Mechanical Loading Reveals Preload-Dependent Function in Developing Cardioids	Marta Pambukhchyan ¹ , Danielle Klinger ² , Maya Tarek-Elkadi ¹ , Jianye Du ² , Jeffrey Naftaly ¹ , Stacey Lee ² , Jingru Che ² , Kristy Red-Horse ¹ , Mark Skylar-Scott ² Departments of Biology ¹ and Bioengineering ² , Stanford University
191	Characterizing Sleep Spindles and Epileptiform Activity in Lennox–Gastaut Syndrome	Vienna Panossian ¹ , Yiming Gan ¹ , Andrea Goldstein-Piekarski ² , Fiona Baumer ¹ Departments of Neurology ¹ and Psychiatry & Behavioral Sciences ² , Stanford University
192	Hippocampal Micro-tractography in AD Using BBQ and Scattered Light Imaging	Evan Park ¹ , Marios Georgiadis ¹ , Matthew Choi ¹ , Andy Liu ¹ , Michael Zeineh ¹ Department of Radiology ¹ , Stanford University
193	Chemical Modulation of ATF6/UPR Signaling to Induce and Reverse Photoreceptor Dystrophy	Soyoung Park ^{1,2,3} , Allyssa Bradley ^{1,2,3} , Hyejung Min ^{1,2,3} , William Temme ^{1,2,3} , Soyeon Park ^{1,2,3} , Ahmad Al-Moujahed ^{1,2,3} , Eun-Jin Lee ^{1,2,3} , Jonathan H. Lin ^{1,2,3} Departments of Ophthalmology ¹ and Pathology ² , Stanford University; VA Palo Alto Healthcare System ³
194	Solvent-Exchange-Induced Confinement of Granular Hydrogels for <i>In Situ</i> Forming Soft Actuators	Ashka Patel ¹ , Vivian Feig ¹ Department of Mechanical Engineering ¹ , Stanford University
195	Neuronal Neuroligin3 Signaling in Activity-Regulated Myelin Plasticity: Implications for Neurodevelopmental Disorders	Aahana Paul ¹ , Belgin Yalcin ¹ , Michelle Monje ¹ Department of Neurology ¹ , Stanford University
196	Long-Term Exposures to Air Pollution Are Associated with Nasal DNA Methylation Markers Linked to Respiratory Health Among Young Adults from Salinas	Javier Perez-Garcia ^{1,2} , Robert B. Gunier ³ , Brenda Eskenazi ³ , John Balmes ^{4,5} , Weihong Guo ³ , Stephanie Holm ⁶ , Nina Holland ^{3,4} , Andres Cardenas ^{2,7} Genomics & Health Group ¹ and Department of Biochemistry, Microbiology, Cell Biology & Genetics, Universidad de La Laguna (ULL); Departments of Epidemiology & Population Health ² and Pediatrics ⁷ , Stanford University; Center for Environmental Research & Community Health (CERCH) ³ and Division of Environmental Health Sciences ⁴ , University of California, Berkeley; Department of Medicine ⁵ , University of California, San Francisco; Stephanie Holm Consulting ⁶
197	Paradoxical Control Enables Robust Perceptron Weights in Population-Level Biological Neural Networks	Valerie Pérez-Medina ¹ , Mohini Misra ² , Michaëlle Mayalu ¹ Departments of Mechanical Engineering ¹ and Bioengineering ² , Stanford University
198	Modeling Colorectal Cancer Screening Uptake from Repeated Cross-sectional Data: First Steps Towards a Screening Simulator	Selina Pi ¹ , Fernando Alarid-Escudero ² Departments of Biomedical Data Science ¹ and Health Policy ² , Stanford University
199	Probing Protein Structure Effects of D2O in Cryo-TEM	Sasha Popova ⁵ , Jacob Summers ^{1,2} , Wah Chiu ^{1,2,3,4} , Soichi Wakatsuki ^{1,2,3} Departments of Structural Biology ¹ and Bioengineering ⁴ and CCOP CORE Program ⁵ , Stanford University; Biological Sciences Division ² and Stanford Synchrotron Radiation Lightsource ³ , SLAC National Accelerator Laboratory

200	Physical Activity Intensity, Sedentary Behavior, and Semen Quality in Healthy East Asian Men: A Cross-Sectional Study	Ashkan Pourabhari Langroudi ¹ , Shufeng Li ¹ , Max L. Lee ¹ , Satvir S. Basran ¹ , Fausto Negri ¹ , Vadim Osadchiy ¹ , Michael L. Eisenberg ¹ Department of Urology ¹ , Stanford University
201	Proteomic Indicators Across the Male Reproductive Endocrine Axis	Ashkan Pourabhari Langroudi ¹ , Satvir S. Basran ¹ , Fausto Negri ¹ , Nicholas C. Sellke ¹ , Graham S. Erwin ¹ , Michael P. Snyder ¹ , Michael L. Eisenberg ¹ Department of Urology ¹ , Stanford University
202	Targeting MERS-CoV Protease Dynamics: Purification, Crystallization, and Active-Site Structural Baseline of PLpro and 3CLpro	Puja Prasad ^{1,2} , Jacob Summers ^{1,2} , Anais Chretien ^{1,2} , Wah Chiu ^{1,2,3,4} , Soichi Wakatsuki ^{1,2,3} Departments of Structural Biology ¹ and Bioengineering ⁴ , Stanford University; Biological Sciences Division ² and Stanford Synchrotron Radiation Lightsource ³ , SLAC National Accelerator Laboratory
203	Identification of Neuroprotective Compounds for Neonatal Hypoxic Brain Injury Using Human Cortical Organoids	Alyssa Puno ¹ , Meghali Aich ¹ , Ahmad Ebtikar ¹ , Saw Htun ⁴ , Yusuke Hori ^{1,2} , Jong Bin Choi ¹ , Estefany Velasquez ³ , Anca M. Pasca ¹ Departments of Pediatrics ¹ , Neurosurgery ² , and Bioengineering ³ , Stanford University; Department of Stem Cell Biology ⁴ , University of Southern California
204	Nominating Causal Variants, Cell Types, and Developmental Stages in Thyroid Disease GWAS with Machine Learning	Jack Quach ¹ , Arpita Singhal ¹ , Ruchir Rastogi ^{1,2} , Maya Kasowski ^{2,3,4} Departments of Computer Science ¹ , Genetics ² , Pathology ³ , and Medicine ⁴ , Stanford University
205	Hierarchical Assembly of Calcium-Binding Repeat Proteins in Low pH Environments	Michelle C. Quan ¹ , Shun Yokoi ² , Alana P. Gudinas ³ , Tsutomu Matsui ⁴ , Soichi Wakatsuki ^{2,5} , Danielle J. Mai ¹ Departments of Chemical Engineering ¹ , Structural Biology ² , and Physics ³ , Stanford University; Stanford Synchrotron Radiation Lightsource ⁴ and Biosciences Division ⁵ , SLAC National Accelerator Laboratory
206	From Drug-Associated Pancreatitis to Biological Insight: A Vitamin A–Centered View	Tazin Rahman ¹ , Cheng-Yu Tsai ¹ , Wenmo Hu ^{1,4} , Na Bo ² , Mayur Sarangdhar ³ , Maisam Abu-El-Haija ³ , Li Wen ⁴ , Gayathri Swaminathan ¹ , Prince Allawadhi ¹ , Ikbal S. Surucu ¹ , Bomi Lee ¹ , Richard T. Waldron ⁵ , Thai Hoa Tran ⁶ , Ying Ding ⁷ , Elena J. Ladas ⁸ , Lewis B. Silverman ⁸ , Anil G. Jegga ³ , Tracy G. Anthony ⁹ , Loredana Quadro ⁹ , Sohail Z. Husain ¹ Department of Pediatrics (Division of Gastroenterology, Hepatology & Nutrition) ¹ , Stanford University; Department of Biostatistics ² , Virginia Commonwealth University; Department of Pediatrics ³ , University of Cincinnati College of Medicine and Cincinnati Children’s Hospital Medical Center; Center for Biomarker Discovery & Validation ⁴ , Chinese Academy of Medical Sciences and Peking Union Medical College; Department of Medicine ⁵ , Cedars-Sinai Medical Center; Division of Pediatric Hematology-Oncology ⁶ , Charles-Bruneau Cancer Center, Université de Montréal; Department of Biostatistics & Health Data Science ⁷ , University of Pittsburgh; Department of Pediatrics (Division of Pediatric Hematology, Oncology, & Stem Cell

		Transplantation) ⁸ , Columbia University; Department of Nutritional Sciences ⁹ , Rutgers University
207	Design and Material Principles for Autonomous Alignment and Healing Multilayer Soft Electronics	Alexandra L. Ramos Figueroa ¹ , Christopher B. Cooper ¹ , Samuel E. Root ¹ , Lukas F. Michalek ¹ , Hyunchang Park ¹ , Yuran Shi ² , Jian Qin ¹ , Zhenan Bao ¹ Departments of Chemical Engineering ¹ and Chemistry ² , Stanford University
208	Surgical Anatomy, Meal Transit, and Hypoglycemia After Gastrectomy and RYGB: An Incretin Hypothesis	Samson Raskin ¹ ; Nina Shenoy ¹ , Chun Sabrina Johnston ¹ , Dalia Perelman ¹ , Heping Chen ¹ , Tracey McLaughlin ¹ Department of Endocrinology ¹ , Stanford University
209	Proximity Proteomics Reveals Distinct Microdomain Localization of Dopamine D2 Receptor Isoforms	David Reiner-Link ^{1,2} , Icaro A. Simon ² , Ruth Hüttenhain ¹ Department of Molecular & Cellular Physiology ¹ , Stanford University; Department of Drug Design & Pharmacology ² , University of Copenhagen
210	Multimodal Sensing for Robot-Assisted Sub-Tissue Feature Detection in Physiotherapy Palpation	Tian-Ao Ren ¹ , Tongyu Wang ¹ , Rohan Karunaratne ² , Jorge Garcia ¹ , Wentao Ke ¹ , Mark Cutkosky ¹ Departments of Mechanical Engineering ¹ and Electrical Engineering ² , Stanford University
211	Sex as a Biological Variable in ME/CFS: Whole-Body TSPO-PET/MRI Insights into Neuroinflammation and Mitochondrial Bioenergetics	Samantha Reyes ¹ , Piper Mahn ¹ , Gayatri Gowrishankar ¹ , Maya Cooper ¹ , Mira Sundar ¹ , Bo Zhang ¹ , Jun-Hyung Park ¹ , Isabelle Hack ¹ , Meghan Bell ¹ , Renesmee Kuo ² , Jonathan Green ¹ , Dawn Holley ¹ , Andrew Dreisbach ¹ , Guido Davidzon ¹ , David Kaufman ³ , Brayden Yellman ⁴ , Robert K. Naviaux ⁵ , Hector Bonilla ⁶ , Emily M. Deal ¹ , Michelle L. James ^{1,7} Departments of Radiology ¹ , Electrical Engineering ² , Infectious Diseases ⁶ , and Neurology & Neurological Sciences ⁷ , Stanford University; Center for Complex Diseases ³ ; Bateman Horne Center ⁴ ; The Mitochondrial & Metabolic Disease Center (Departments of Medicine, Pediatrics, & Pathology) ⁵ , University of California, San Diego
212	Small Molecule Activation of TrkB & TrkC Neurotrophic Receptors Attenuates Tau Phosphorylation, Synaptic Pathology, and Neuroinflammation in a Tauopathy Mouse Model	Rosemary Robbins ¹ , Danielle A. Simmons ¹ , Benjamin Gulbranson ¹ , Frank M. Longo ^{1,2} Department of Neurology & Neurological Sciences ¹ and Wu Tsai Neuroscience Institute ² , Stanford University
213	Evolutionary Trade-Offs Confer Phage-Antibiotic Synergy in <i>P. aeruginosa</i>	Anna L. Rodden ¹ , Bobby Targ ¹ , Dominick Faith ¹ , Zhiwei Li ¹ , Arya Khosravi ¹ , Garvey Mckenzie ² , Paul L. Bollyky ¹ Department of Medicine (Division of Infectious Diseases & Geographic Medicine ¹) and Stanford University Mass Spectrometry ² , Stanford University
214	Towards an Implantable Optoelectronic System with Whole-Cell Biosensors for Continuous Monitoring of Inflammatory Dynamics	Kyle KunHyung Roh ^{1,2*} , Sunghoon Rho ^{2*} , Alice Gao ^{2*} , Kecheng Wang ² , Siddharth Krishnan ² (*equal contribution) Departments of Bioengineering ¹ and Electrical Engineering ² , Stanford University
215	Calcimembrin (c16orf74) Regulates Calcineurin/NFAT Signaling in Breast Cancer Cells	Luna Romero ¹ , Angela Barth ¹ , Martha S. Cyert ¹ Department of Biology ¹ , Stanford University

216	Fluorescent Biosensors for Cryogenic Correlative Light and Electron Microscopy	Christopher Azaledgui ¹ , Kevin Rose ¹ , Peter Dahlberg ¹ Department of Structural Biology ¹ , Stanford University
217	Impact of Baseline Tumor Size on Response to Anti-CD47 Immunotherapy in an Osteosarcoma Mouse Model	Raheleh Roudi ¹ , Giovanni M. Saladino ¹ , Iryna Vasylyv ¹ , Laura Pisani ¹ , Heike E. Daldrup-Link ^{1,2} Departments of Radiology (Molecular Imaging Program at Stanford) ¹ and Pediatrics (Hematology/Oncology) ² , Stanford University
218	Quantitative Detection of Macrophage Activation in Osteosarcoma Comparing ¹⁸ F-FDG PET/CT with Ferumoxytol-Enhanced MRI	Raheleh Roudi ¹ , Frezghi Habte ¹ , Giovanni M. Saladino ¹ , Iryna Vasylyv ¹ , Laura Pisani ¹ , Heike E. Daldrup-Link ^{1,2} Departments of Radiology (Molecular Imaging Program at Stanford) ¹ and Pediatrics, (Hematology/Oncology) ² , Stanford University
219	Perturbation: A Simple and Efficient Adversarial Tracer for Representation Learning in Language Models	Joshua Rozner ¹ , Cory Shain ² Institute for Computational & Mathematical Engineering ¹ and Department of Linguistics ² , Stanford University
220	Resting-State EEG Correlates of Excessive Daytime Sleepiness and Cognitive Performance in Myotonic Dystrophy Type 1	Hannah Rutherford ¹ , Katharine Hagerman ¹ , Babak Razavi ¹ , Jacinda Sampson ¹ , John W. Day ¹ , Tahereh Kamali ¹ Department of Neurology & Neurological Sciences ¹ , Stanford University
221	Within-Person Sleep Deviation and Next-Day Pain Severity in Youth With Chronic Musculoskeletal Pain: A Longitudinal Observational Study	Hannah Saab ¹ , Anna H. Bailes ¹ , Manreet Kaur Brar ¹ , Rafaela Wolf ¹ , Sahrish Masood ¹ , Aliyah Davis ¹ , Jeremy Giberson ¹ , Casey Cashman ^{2,3,6} , Allison Hill ^{3,4} , Javed Gill ³ , Ryan S. McGinnis ⁵ , Ellen W. McGinnis ⁶ , Nima Aghaeepour ¹ , Laura E. Simons ¹ Department of Anesthesiology, Perioperative & Pain Medicine ¹ , Stanford University; US Pain Foundation ² ; Patient & Pain Advocacy Partner ³ ; Division of Cardiology ⁴ , Heart Institute, Children's Hospital of Los Angeles; Biomedical Engineering & Center for Remote Health Monitoring ⁵ and Social Sciences & Health Policy & Center for Remote Monitoring ⁶ , Wake Forest University School of Medicine
222	Modulating Microenvironmental Factors to Alter Disease Progression in Myeloproliferative Neoplasms	Toshie Saito ^{1,2} , Benjamin Rolles ^{1,2} , Masashi Miyauchi ^{1,2} , Ann Mullally ^{1,2} Department of Medicine (Division of Hematology) ¹ , Stanford University; Hematology Division ² , VA Palo Alto Health Care System
223	Ultrasonic Delivery of Ferumoxytol to Glioblastoma	Giovanni M. Saladino ¹ , Payton J. Martinez ¹ , Jie Wang ¹ , Raheleh Roudi ¹ , Giacomo Annio ¹ , Raag D. Airan ¹ , Heike E. Daldrup-Link ¹ Department of Radiology ¹ , Stanford University
224	Characterizing Nutrient Utilization in <i>Salpingoeca rosetta</i> , the Closest Living Relative of Animals	Chelsea Salazar ¹ , Brianna Johnson ¹ , Flora Rutaganira ¹ Departments of Biochemistry ¹ and Developmental Biology ¹ , Stanford University
225	Modeling Allergy Mechanisms with Patient-Derived Esophageal Organoids	Kian Salimi ¹ , Annerose Ziegler ¹ , Davide Cinat ¹ , Lorena Pastor ¹ , Cara Rada ¹ , Calvin Kuo ¹ Department of Hematology ¹ , Stanford University

226	Elucidating the Role of CLNx in the Regulation of Lysosomal Lipid Metabolism	Devyn Sasai ¹ , Shadler Nguyen ² , Monther Abu-Remaih ^{3,4} Departments of Biology ¹ , Chemistry ² , and Chemical Engineering ³ and Sarafan ChEM-H ⁴ , Stanford University
227	Hippocampal Axo-axonic Cell Dynamics in Temporal Lobe Epilepsy	Eliza Schnitzer ^{1,2} , Shreya Malhotra ¹ , Annie Goettemoeller ¹ , Peter Klein ¹ , Robert Lupoiu ¹ , Fraser Sparks ³ , Attila Losonczy ³ , Ivan Soltesz ¹ Departments of Neurosurgery ¹ and Biology ² , Stanford University; Department of Neuroscience ³ , Columbia University
228	Toward Closed-Loop, Personalized Prefrontal TMS for Depression	Leonhard Schreiner ^{1,2} , Christopher C. Cline ^{1,2} , Samantha M. Gray ^{2,4} , Emma Klebaner ^{1,2} , Hansong Lee ^{1,2} , Umair Hassan ^{1,2} , Nicholas T. Trapp ⁵ , Aaron D. Boes ⁵ , Corey J. Keller ^{1,2,3} Department of Psychiatry & Behavioral Sciences ¹ , Wu Tsai Neurosciences Institute ² , and Neurosciences Program ⁴ , Stanford University; VA Palo Alto Healthcare System ³ ; Department of Psychiatry ⁵ , University of Iowa Carver College of Medicine
229	Quasi-Experimental Evaluations of Critical Decision-Thresholds in Oncology	Maximilian Schuessler ¹ , Erik Sverdrup ² , Robert Tibshirani ^{1,3} , Stefan Wager ⁴ Departments of Biomedical Data Science ¹ and Statistics ³ and Graduate School of Business ⁴ , Stanford University; Department of Econometrics & Business Statistics ² , Monash University
230	Chromosome 21 Immune Gene Variants and Neuroinflammatory Biomarker Profiles in Down Syndrome	Niku Sedarat ¹ , Laura Xicota Vila ¹ , Jennifer Bruno ¹ Department of Interdisciplinary Brain Sciences ¹ , Stanford University
231	The Transformer as the Canonical Cortical Microcircuit	Yash Shah ¹ , Dan Yamins ^{1,2,3} Departments of Computer Science ¹ and Psychology ² and Wu Tsai Neurosciences Institute ³ , Stanford University
232	An Immunofluorescent Profile of Checkpoint Kinase 1 Activity in the Retina Across CD1 Murine Development	Merut Shankar ¹ , Satinder Kaur ¹ , Xin Xia ¹ , Sydney Adcock ¹ , Amit Patel ² , Derek Welsbie ² , Jeffrey Goldberg ¹ , Benyam Kinde ¹ Byers Eye Institute ¹ , Stanford University; Shiley Eye Institute ² , UC San Diego
233	Domain-Dependent Switching of PTRN-1 Couples Dendritic Microtubule Severing to Polarity Maintenance	Runying Shao ¹ , Dane Kawano ² , Kang Shen ^{2,3} School of Life Sciences ¹ , Peking University; Department of Biology ² and Howard Hughes Medical Institute ³ , Stanford University
234	Integrating Label-Free 3D Optical Microscopy with Spatial Omics for Molecular Profiling of Intact Tissue	Komal Sharma ¹ , Zerlina Zilan Lai ¹ , John Choi ² , Emilie Manning ¹ , Varun Gupta ² , Jahanbanoo Shahryari ^{1,3} , Diego Alejandro Godoy Ruge ¹ , Rohit Verma ² , Kwang Bog Cho ² , Michael Lim ² , Yonatan Winetraub ¹ Departments of Structural Biology ¹ , Neurosurgery ² , and Pathology ³ , Stanford University
235	Investigating the Role of FOXN3 in Neuronal Reprogramming	Joseph Shelby ¹ , Xiaolong Ma ¹ , Marius Wernig ^{1,2} Institute for Stem Cell Biology & Regenerative Medicine ¹ and Department of Pathology ² , Stanford University

236	Investigating Sex Differences in Morphine Reward and Early Life Stress Modulation of Pain Sensitivity	Aniyah X. Shen ¹ , Ivy B. Hoang ¹ , Allison R. Morningstar ¹ , Harita Udayashankar ¹ , Eric Duan ¹ , William J. Giardino ¹ Department of Psychiatry & Behavioral Sciences ¹ , Stanford University
237	Additive Manufacturing of High-Resolution Porous Scaffolds for Synthetic Vascular Grafts	Vedika J. Shenoy ¹ , Andreas Maskos ² , Edgar Aranda-Michel ² , Yee Lin Tan ³ , John W. MacArthur ² , Eric S.G. Shaqfeh ^{1,4} , Joseph M. DeSimone ^{1,5,6,7} Departments of Chemical Engineering ¹ , Cardiothoracic Surgery ² , Materials Science & Engineering ³ , Mechanical Engineering ⁴ , and Radiology ⁵ , Canary Center ⁶ , and Stanford Cancer Institute ⁷ , Stanford University
238	A Pan-Cancer Atlas of Telomere Length in Tissues	Junming Shi ¹ , Jiaxin Liu ¹ , Leslie Espinoza ^{1,2} , Mengran Zhang ¹ , Meenal Gupta ^{1,4} , Amirsaman Ashtari ^{1,3} , Takeshi Sugio ¹ , Joseph Schroers-Martin ¹ , Henning Stehr ⁵ , Md Tauhidul Islam ¹ , Mohammad Shahrokh Esfahani ^{1*} (*corresponding author) Departments of Radiation Oncology ¹ , Biomedical Data Sciences ² , Medicine (Division of Hematology & Oncology) ³ , Computer Science ⁴ , and Pathology ⁵ , Stanford University
239	Too Rigid to Strike: Excess Desmin at Z-Discs Underlies a Restrictive Cardiomyopathy in GAN Mice	Wei Wang ^{1*} , Zongmin Liu ^{1*} , Lu Zheng ^{2*} , Yuanping Shi ² , Emanuel Manzo-Casio ¹ , Sunstone Shi ¹ , Jeffery Fan ¹ , Delphine Zhou ¹ , Winston Wang ¹ , Audrey Liu ¹ , Yanmin Yang ^{1†} (*equal contribution; †corresponding author) Department of Neurology & Neurological Sciences ¹ , Stanford University; Department of Science & Technology (Cardiology Division) ² , Changzhou First People's Hospital
240	The Effect of β -cell Inactivation of Hopx on Islet Function	Taisho Shiono ¹ , Martin Neukam ¹ , Sangbin Park ¹ , Richard Rodriguez ¹ , Seung Kim ^{1,2,3} Department of Developmental Biology ¹ , Stanford Diabetes Research Center ² , and Northern California Breakthrough T1D Center of Excellence ³ , Stanford University
241	Imaging Evaluation of G-CSF-Related Marrow Activation and Its Impact on FDG-PET Tumor Assessment: A PET/MRI Study in Pediatric and Young Adults	Zahra Shokri Varniab ¹ , Yashas Ullas Lokesha ¹ , Heike Daldrup-Link ^{1,2} Departments of Radiology (Molecular Imaging Program at Stanford) ¹ and Pediatrics (Pediatric Oncology) ² , Stanford University
242	Measurement of Susceptibility to Clostridium cuniculi in Immunodeficient Rodent Models	Kelly Siddeeq ¹ , Katelyn Chen ¹ , Rina Barouch-Bentov ¹ , Minoo Fazel ¹ , Stephen A. Felt ¹ , Claude M. Nagamine ¹ Department of Comparative Medicine ¹ , Stanford University
243	mVITREAL: Murine Vitreous Isolation and Transfer for Rheological and Viscoelastic Analysis	Aneal M. Singh ^{1,2} , Michael Tsai ^{1,2} , Joel A. Franco ^{1,2} , Tsai Chu Yeh ^{1,2} , Uiyoung Han ² , Soo Hyeon Lee ^{1,2} , Vinit B. Mahajan ^{1,2} Molecular Surgery Laboratory ¹ and Department of Ophthalmology ² , Byers Eye Institute, Stanford University
244	Enhancing Aged Bone Regeneration via Tuning Cell Membrane Coatings in 3D Microribbon Scaffolds	Raina Singh ¹ , Callie Weber ² , Ellie Yates ² , Joshua Sin ¹ , Ni Su ² , Sungwon Kim ² , Fan Yang ^{1,2}

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245	How Do ABA Receptor Expression Levels and Tissue Specificity Control Root Growth Plasticity?	Orion Singha ¹ , Prashanth Ramachandran ^{1,2} , José Dinneny ^{1,2} Department of Biology ¹ , Stanford University; Howard Hughes Medical Institute ²
246	Skin Involvement Correlates with Worse Disease: A Cohort Analysis of 97 Dominant Dystrophic EB Patients in North America	Maria Skaf ¹ , Edward Eid ¹ , Kathleen Peoples ² , Shufeng Li ¹ , Estephannie Alvarez ¹ , Emily Gorell ² , Anna Bruckner ² , Jean Y. Tang ^{1,3} Department of Dermatology ¹ , Stanford University; Children's Hospital Colorado, Aurora ² ; EB Clinical Research Consortium ³
247	The Role of Macrophage EPO/EPOR Signaling in High Grade Serous Ovarian Cancer	Weston Smith ¹ , Natalie Pilla ¹ , Erin Rankin ¹ Department of Radiation Oncology ¹ , Stanford University
248	How Matrix-Secreting Cells Sense Scaffold Confinement	Jake Song ¹ , Sarah Loveland ² , Fan Yang ^{3,4} , Nidhi Bhutani ⁴ , Marc Levenston ¹ , Ovijit Chaudhuri ¹ Departments of Mechanical Engineering ¹ , Chemistry ² , Bioengineering ³ , and Orthopaedic Surgery ⁴ , Stanford University
249	Biomechanical Evaluation of a Novel Patellar Tendon-Tibial Periosteum Graft for ACL Reconstruction in Skeletally Immature Patients	Emma Sralla ¹ , Paul Bergeron ¹ , Maximilian Müller ² , Oren Morgan ¹ , Greta Cywinska ¹ , Lauren Ginn ¹ , Amishi Jobanputra ¹ , Calvin Chan ¹ , Charles Chan ¹ , Molly Meadows ¹ , Theodore Ganley ³ , Henry Ellis ⁴ , Philip Wilson ⁵ , Kevin Shea ¹ Department of Orthopaedic Surgery ¹ , Stanford University; Department of Orthopaedic Surgery ² , Hospital for Special Surgery, NewYork-Presbyterian, Weill Medical College of Cornell University; Division of Orthopaedic ³ , Children's Hospital of Philadelphia; Department of Orthopedic Surgery ⁴ , Scottish Rite for Children Sports Medicine; Department of Orthopaedic Surgery ⁵ , Scottish Rite for Children
250	Assessing Muscle Symmetry in the UK Biobank	Sidharth Sreedar ¹ , Evert Onno Wesselink ¹ , Merve Kaptan ¹ , Christine S. W. Law ¹ , Feliks Kogan ² , Sean Mackey ¹ , Kenneth A. Weber II ¹ Departments of Anesthesiology, Perioperative & Pain Medicine (Division of Pain Medicine) ¹ and Radiology ² , Stanford University
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252	Blocking dMIC60 Oxidation Drives Mitochondrial–Nuclear Crosstalk and Promotes Resilience	Zoe Zizzo ^{1*} , Menghan Li ^{1*} , Sejal A. Sripadanna ¹ , Otufa Noor ¹ , Phoebe Pan ¹ , Xinnan Wang ¹ (*equal contribution) Department of Neurosurgery ¹ , Stanford University
253	Ceapin-A7 Suppresses UPR Signaling and Mitigates Retinal Neovascularization in Vldlr ^{-/-} Mice	Ethan Stevenson ^{1,2,3} , Soyoung Park ^{1,2,3} , Angela Galdamez ^{1,2,3} , William Temme ^{1,2,3} , Allyssa

		Bradley ^{1,2,3} , Leon Chea ^{1,2,3} , Masako Le ^{1,2,3} , Yudith Gradilla ^{1,2,3} , Eun-Jin Lee ^{1,2,3} , Jonathan H. Lin ^{1,2,3} Departments of Ophthalmology ¹ and Pathology ² , Stanford University; VA Palo Alto Healthcare System ³
254	Tracking Changes in MMR Vaccine Coverage Post-Measles Outbreaks in the United States	Lauren A. Stoffel ¹ , Chirag K. Kumar ^{1,2} , Mustafa Fattah ³ , Kate M. Bubar ¹ , Samantha J. Bents ^{1,2} , Sophia T. Tan ¹ , Nathan C. Lo ¹ Department of Medicine (Division of Infectious Diseases & Geographic Medicine) ¹ and Emmett Interdisciplinary Program in Environment & Resources ² , Stanford University; Vagelos College of Physicians & Surgeons ³ , Columbia University
255	Optimizing Treatment for Inflammatory Skin Disease with Predictive Modeling	Gowri Y. Subedar ¹ , Saimai Lau ¹ , Michaëlle N. Mayalu ¹ Department of Mechanical Engineering ¹ , Stanford University
256	Image Synthesis of CT Volumes from Two-View Scouts with Conditional Diffusion Models	Liyan Sun ¹ , Sen Wang ¹ , Maria Jose Medrano ¹ , Grant Stevens ³ , Justin Ruey Tse ¹ , Adam S. Wang ^{1,2} Departments of Radiology ¹ and Electrical Engineering ² , Stanford University; GE Healthcare ³
257	Coregistering Quantitative Susceptibility Mapping (QSM) & Histology for Hippocampal Iron Analysis	Valerie Ta ¹ , Matthew Choi ¹ , Andy Liu ¹ , Yixin Wang ^{1,2} , Reese Dunne ^{1,3} , Marios Georgiadis ¹ , Michael Zeineh ¹ Departments of Radiology ¹ , Bioengineering ² , and Mechanical Engineering ³ , Stanford University
258	Generative Reconstruction of 3D Tissue Architecture from Sparse Spatial Proteomics Data	Yuqi Tan ^{1*} , Zhaojun Zhang ^{2*} , Michael Snyder ^{3†} , Garry P. Nolan ^{4†} , Zongming Ma ^{5†} (*co-first author, †co-corresponding author) Departments of Microbiology & Immunology ¹ , Genetics ³ , and Pathology ⁴ , Stanford University; The Wharton School ² ; Department of Statistics & Data Science ⁵ , Yale University
259	Audio Augmentation of Manual Interactions to Support Mindfulness	Yujie Tao ¹ , Bruce Ruan ¹ , Jingjin Li ² , Huiqi Tong ³ , Jeremy N. Bailenson ⁴ , Sean Follmer ⁵ Departments of Computer Science ¹ , Psychiatry & Behavioral Sciences ³ , Communication ⁴ , and Mechanical Engineering ⁵ , Stanford University; Department of Information Science ² , Cornell University
260	Does Epstein-Barr Virus Infect Preexisting Autoreactive B Cells to Cause Multiple Sclerosis?	Komal Thandi ¹ , Sajede Rasouli ^{2,3} , Neda Sattarnezhad ^{2,5} , Shady Younis ^{2,3} , William H. Robinson ^{2,3,4} Department of Biology ¹ , Division of Immunology & Rheumatology ² , and Institute for Immunity, Transplantation, & Infection ⁴ , Stanford University; Department of Neurology ⁵ , VA Palo Alto Health Care System ³
261	Behavioral and Neural Rhythmicity in Feature-Based Attention and Episodic Memory	Ethan Shmuel Traister ¹ , Haley Chu ¹ , Haopei Yang ¹ , Anthony David Wagner ¹ Stanford Memory Lab ¹ , Stanford University
262	Computational Generative Design of Glycan Binders Against Cancer Specific Glycosignatures	Yun-Jie (Liz) Tsai ¹ , Ke (Chloe) Wen ¹ , Kang Yong Loh ² , Carolyn Bertozzi ³

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263	Advancing Neuroscience Education for Neurodivergent Adults	Eva Urbanek ¹ , Raya Bogdanova ¹ , Khushi Bhatia ¹ , Jennifer Bruno ¹ Department of Psychiatry & Behavioral Sciences ¹ , Stanford University
264	Changes in 18F-FDG PET-Derived Spleen-to-Liver Ratio Are Associated with Survival Following CAR T-Cell Therapy in Children and Young Adults with Cancer	Iryna Vasylyv ¹ , Jason Wong ¹ , Claire Johns ² , Sneha Ramakrishna ² , Kara L. Davis ² , Heike E. Daldrup-Link ¹ Departments of Radiology (Pediatric Molecular Imaging Program) ¹ and Pediatrics (Bass Center for Childhood Cancer & Blood Disorders, Center for Cancer Cell Therapy) ² , Stanford University
265	Studying the Effect of Influenza Virus on Neuronal Resilience in Parkinson's Disease	Zina Vidalakis ^{1,2} , Lennart Hermanussen ^{1,2} , Do Tran ^{1,2} , Dhriti Nagar ³ , Anca Pasca ³ , Shirit Einav ^{1,2} Departments of Medicine (Divisions of Infectious Diseases ¹ and Neonatal & Developmental Medicine ³) and Microbiology & Immunology ² , Stanford University
266	Histone Tracing Technology Reveals Replication-Independent Nucleosome Synthesis After Acute Liver Stress	Shreenidhi Rajkumar ^{1,2} , Lavanya Vumma ^{1,2,9} , Jacinth Naidoo ⁴ , Min Zhu ^{1,2,7} , Ishrat Durdana ^{1,2} , Sri Vidhya Chandrasekar ^{1,8} , Caiden Golder ^{1,2} , Harsh Goar ^{1,2,9} , W. Kiran Kicinski ^{1,2,9} , Rico Gamuyao ^{1,2} , Yudong Wei ³ , Hao Zhu ^{1,2,7} , Suraj Patel ^{1,5,6} , Joseph Ready ⁴ , Michael Buszczak ³ , Joshua J. Gruber ^{1,2,3,9*} (*corresponding author) Departments of Internal Medicine ¹ , Hematology-Oncology ² , Molecular Biology ³ , Biochemistry ⁴ , Digestive & Liver Diseases ⁶ , and Nephrology ⁸ , Cecil H. & Ida Green Center for Reproductive Biological Sciences ² , Center for Human Nutrition ⁵ , and Children's Medical Center Research Institute ⁷ , UT Southwestern Medical Center; Department of Medicine ⁹ , Stanford University
267	Behaviorally Intelligent Audio-Visual Avatar for Simulated Cognitive Behavioral Therapy (CBT) Sessions	Logan Wang ¹ , Juze Zhang ¹ , Fangrui Huang ² , Ehsan Adeli ¹ Departments of Psychiatry & Behavioral Sciences ¹ and Computer Science ² , Stanford University
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269	Targeting OFD14 Ciliopathy: Gene Correction via the Novel TIGRa Nuclease Platform	Wenmin Wang ¹ , Eva Wang ¹ , Yang Sun ¹ Department of Ophthalmology ¹ , Stanford University
270	Aging Disrupts Stromal-Immune Crosstalk During Biomaterial-Mediated Bone Repair	Callie M. Weber ¹ , Sungwon Kim ¹ , Michelle Tai ² , Mayu Morita ¹ , Takahiro Igei ¹ , Yosuke Susuki ¹ , Michelle M.T. Jansman ^{1,3} , Ellen Yates ¹ , Raina Singh ² , Joshua Sin ² , Aditya Chindhade ^{1,4} , Simon Kwoon-Ho Chow ¹ , Stuart B. Goodman ^{1,2} , Fan Yang ^{1,2} Departments of Orthopaedic Surgery ¹ and Bioengineering ² , Stanford University; Department of Health Technology ³ , Technical University of

		Denmark; Department of Chemical Engineering ⁴ , University of Washington
271	Integration of Genomic Interaction Priors Enhances Representation Learning in Single-Cell RNA-seq	Qingyue Wei ¹ , Sheng Liu ² , Chuanbao Zhang ² , Sijie Chen ² , Wei Emma Wu ² , Zixia Zhou ² , Rui Yan ¹ , Md Tauhidul Islam ² , Lei Xing ^{1,2,3} Institute for Computational & Mathematical Engineering ¹ and Departments of Radiation Oncology ² and Electrical Engineering ³ , Stanford University
272	TEARDROP: Nanoparticle-Enhanced Tear Proteomics for Ocular Oncology	Charlotte Weixel ¹ , Gia-Han Ngo ¹ , Madhumeeta Chadha ¹ , Young Joo Sun ¹ , Gina Yu ¹ , Soo Hyeon Lee ¹ , Gabriel Velez ¹ , Alexander G. Bassuk ³ , Prithvi Mruthyunjaya ¹ , Antoine Dufour ⁴ , Vinit B. Mahajan ^{1,2} Department of Ophthalmology (Molecular Surgery Laboratory, Byers Eye Institute) ¹ , Stanford University; VA Palo Alto Health Care System ² ; Department of Pediatrics ³ , University of Iowa; Departments of Physiology, Pharmacology & Biochemistry, and Molecular Biology ⁴ , University of Calgary
273	Printing Beyond Reach - A Miniaturized Robotic Arm for Spatial Bioink Deposition	Felix Wernig ¹ , Mark Skylar-Scott ^{1,2} Skylar-Scott Lab ¹ and Department of Bioengineering ² , Stanford University
274	Tiny Worms, Complex Transport: How Motor Proteins Shape Organelles in Neurons	Leonidas C. Wernig ^{1*} , Caitlin A. Taylor ^{1*} , Kang Shen ¹ (*equal contribution) Department of Biology ¹ , Stanford University
275	In Vivo Assessment of Size and Weight Constraints for Anterior-Segment Intraocular-Lens-Like Implants in Rabbits	Sage Wheeler ¹ , Charles Yu ¹ Department of Ophthalmology ¹ , Stanford University
276	Broadband Near-Field Enhancement for Detecting Molecules With Luminescent Emission	Aiden Wilkin ¹ , Halleh Balch ¹ Department of Oceans ¹ , Stanford University
277	An mRNA-Based Sensing Platform to Treat Keloid Fibrosis	Laura Adamkiewicz ¹ , Augusta Rampe ¹ , Clara Cestone ¹ , Katie Chen ¹ , Miranda Johnson ¹ , Canon Pham ¹ , Hansen Tao ¹ , Kyle Roh ¹ , Mariana Reyes ¹ , Grace Gao ¹ , Alvin Wong ¹ Department of Bioengineering ¹ , Stanford University
278	Real-Life Contributors to Individuals' Glycemic Response to Meals	Yue Wu ^{1,2} , Dalia Perelman ^{1,3} , Michael P. Snyder ^{1,2,4,5} Departments of Genetics ¹ and Medicine ³ , Stanford Cardiovascular Institute ² , Stanford Diabetes Research Center ⁴ , and Metabolic Health Center ⁵ , Stanford University
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280	Low-Barrier Spatial Communication in Preoperative Breast Anatomy Using VR: An Apple Vision Pro 3D Visualization Tool for Intuitive Tumor Localization	Sophia Liu ¹ , Yuxuan Wu ¹ , Jacqueline Tsai ¹ , Judith Zimmermann ¹ , Bruce Daniel ¹ IMMERS Lab, Department of Radiology ¹ Stanford Medicine, Stanford University

281	Investigating the Effects of SWAP-seq Enhancer Deletions Using PRIME-Del as Validation in Coronary Artery Disease	K. Coco Xia ^{1,2,3} , Yannick Lee-yow ^{2,3} , Jesse M. Engreitz ^{2,3} Departments of Biomedical Data Science ¹ and Genetics ² , Stanford University; Basic Science & Engineering Initiative ³ , Betty Irene Moore Children's Heart Center, Lucile Packard Children's Hospital, Stanford University
282	Emergence of Map-Like Spatial Representations in Transformers during Navigation Tasks	Qiqi Xian ¹ , Ziming Liu ⁸ , Zhuokun Ding ⁹ , Sophia Sanborn ^{2,3,7} , Surya Ganguli ^{1,4,5,6,7*} , Andreas Tolias ^{2,5,6,7*} (*senior authors) Departments of Applied Physics ¹ , Ophthalmology ² , Neurology ³ , Neurobiology ⁴ , and Electrical Engineering ⁵ , Stanford Bio-X ⁶ , and Wu Tsai Neuroscience Institute ⁷ , Stanford University; Tsinghua University ⁸ ; Metamorphic Labs ⁹
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284	Decoding Mitochondrial Dysfunction in Hypertrophic Cardiomyopathy Using Patient-Derived iPSC Cardiomyocytes	Sajeda Musa Yagoub ¹ , Haley M. Fernandez ¹ , Xuekun Wu ¹ , Renke Tan ¹ , Joseph Wu ^{1,2,3,4} Stanford Cardiovascular Institute ¹ , Division of Cardiology ² , and Department of Radiology ³ , Stanford University; Greenstone Biosciences ⁴
285	Human Motor Neuron Subtype Programming via Single-cell TF Perturbation Screen	Zhenhao Yan ¹ , Thao Phuong Nguyen ¹ , Chang Liu ¹ , Austin Hartman ² , Katherine Santostefano ² , Finn Ward ¹ , Chingni Yan ¹ , Aaron Gitler ¹ Departments of Genetics ¹ and Pathology ² , Stanford University
286	A Spatially Patterned 3D Model of Breast Cancer Bone Metastasis Reveals the Anti-Invasive Effects of Zoledronic Acid	Ellie Yates ² , Michelle Tai ¹ , Callie Weber ² , Fan Yang ^{1,2} Departments of Bioengineering ¹ and Orthopaedic Surgery ² , Stanford University
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290	Identifying Age- and Region-Specific Microglial Resilience Mechanisms in Brain Aging	Ava Yeh ^{1,2} , Andy Tsai ¹ , Eduardo Ramirez Lopez ¹ , Tony Wyss-Coray ^{1,3} Departments of Neurology & Neurological Sciences ¹ and Biology ² and the Phil & Penny Knight Initiative for Brain Resilience ³ , Stanford University

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296	It's Not Easy Being Green: Harnessing Endosymbiosis to Enable Mammalian Photosynthesis	Abbas Zaki ^{1,2} , Gulimere Yilihan ³ , Ravikanth Maddipati ² , Chao Jiang ³ , Joshua Gruber ¹ Department of Oncology ¹ , Stanford University; Department of Internal Medicine ² , UT Southwestern Medical School; Department of Life Sciences ³ , Zhejiang University
297	Towards Transfer Fabrication of Alumina-Epoxy Acoustic Matching Layers for PZT Ultrasound Transducers	Tomasz Zaluska ^{1,3} , Christoph Leitner ² , Younghun Kim ⁴ , Federico Villani ² , Butrus Khuri-Yakub ⁴ , Luca Benini ² , Todd Coleman ¹ , Zhenan Bao ³ Departments of Bioengineering ¹ , Chemical Engineering ³ , and Electrical Engineering ⁴ , Stanford University; Integrated Systems Laboratory ² , ETH Zurich
298	Hyaluronic Acid Mechanotransduction Regulates Pancreatic Stellate Cell Activation and PDAC Organoid Chemoresistance	Daiyao Zhang ¹ , Jinxuan Yu ² , Neil J. Baugh ² , Sarah C. Heilshorn ² Departments of Chemical Engineering ¹ and Materials Science & Engineering ² , Stanford University
299	A Modular Toolkit for Detecting and Screening Location-Biased GPCR Activation	Huyang (Ura) Zhang ¹ , Gabriele Kockelkoren ¹ , Brynne M. Currier ¹ , Alice Y. Ting ¹ Departments of Genetics ¹ , Stanford University
300	Probing Enteric Nervous System Dynamics Through a Transparent Abdomen in Live Mice	Ling-Yi Zhang ^{1,2} , Nirao M. Shah ^{3,4,5} , Julia A. Kaltschmidt ^{2,6} , Guosong Hong ^{1,2} Departments of Materials Science & Engineering ¹ , Psychiatry & Behavioral Sciences ³ , Neurobiology ⁴ , Obstetrics & Gynecology ⁵ , and Neurosurgery ⁶ and Wu Tsai Neurosciences Institute ² , Stanford University
301	Dynamic Covalent Crosslinked Hydrogels for the Sustained Delivery of Bacteriophage to Treat Wound Infections	Lucy Zhang ¹ , Yung-Hao Lin ² , Tiffany Luong ³ , Zhiwei Li ³ , Qingquan Chen ³ , Tejas Dharmaraj ³ , Cas de Leeuw ⁴ , Tony Chang ³ , Paul Bollyky ³ , Ovijit Chaudhuri ⁶ Departments of Materials Science & Engineering ¹ , Chemical Engineering ² , Infectious Diseases & Geographic Medicine ³ , and Mechanical Engineering ⁴ , Stanford University; Institute of Molecules & Materials ⁵ , Radboud University
302	Amplifying Early Detection: A Global Podcast Connecting Cancer Research and Practice	Moss Zhao ¹ , Aja Zou ¹ Department of Neurosurgery ¹ , Stanford University
303	Spectral and Topological Analysis of Gut Motility in the Mouse Small Intestine	Chloe Zhong ¹ , Ashley Yeh ² , Julia Kaltschmidt ² , Todd Coleman ³

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304	Optimized Floating Embryonic Cortical Explant Culture Systems to Support Neurogenesis	Blake Zhou ¹ , Arjun Rajan ² , Ryann Fame ^{1,3} Neurosciences PhD Program ¹ , Developmental Biology PhD Program ² , and Department of Neurosurgery ³ , Stanford University
305	Distortion- and Blurring-Free Diffusion-Weighted Imaging in the Body Using Self-Navigated Echo Planar Time-Resolved Imaging	Xuetong Zhou ^{1,2} , Aizada Nurdinova ¹ , Judith Zimmermann ¹ , Andreas M. Loening ¹ , Bruce L. Daniel ^{1,2} , Brian A. Hargreaves ^{1,2,3} Departments of Radiology ¹ , Bioengineering ² , and Electrical Engineering ³ , Stanford University
306	Intracranial Artery Abnormalities Predict Periventricular Anastomosis in Moyamoya Disease	Aja Zou ^{1,3} , Shoko Hara ² , Sasha Alexander ³ , Gabriella Morton ³ , Michael Moseley ⁴ , Moss Y. Zhao ^{3*} , Gary K. Steinberg ^{3*} (*equal contribution) Departments of Biology ¹ and Radiology ⁴ and Department of Neurosurgery & Stanford Stroke Center ³ , Stanford University; Department of Neurosurgery ² , Institute of Science Tokyo
307	Correlating Dust Extinction with Neutral Hydrogen in the BICEP/Keck Observational Fields	Lily Zou ² , Chao-Lin Kuo ^{1,2} Department of Physics ¹ , Stanford University; Kavli Institute for Particle Astrophysics & Cosmology ² , SLAC National Accelerator Laboratory
308	Simulation-Guided Bandpass Purcell Filter Design for Transmon Qubit Readout	Xander Zufelt ¹ , Victor Wei ² , David Schuster ² Departments of Physics ¹ and Applied Physics ² , Stanford University
309	A Translational Approach to Optical Clearing of Human Tissue	Louiza Zughbaba ¹ , Sharon Loa ² , Su Zhao ³ , Kavita Sarin ⁴ , Guosong Hong ³ Departments of Human Biology ¹ , Biophysics ² , Materials Science & Engineering ³ , and Dermatology ⁴ , Stanford University