



STANFORD  
CHILD HEALTH  
RESEARCH INSTITUTE



# ANNUAL REPORT **FY 2018**

ADVANCING RESEARCH IN MATERNAL AND CHILD HEALTH

## MOBILIZING STANFORD DISCOVERIES & EXPERTISE TO LAUNCH HEALTHIER LIVES

The Child Health Research Institute (CHRI) accelerates Stanford discoveries to improve the health of pregnant women and children by fostering transdisciplinary research in the pre-clinical, clinical, and basic sciences.

### STRATEGIC GOALS

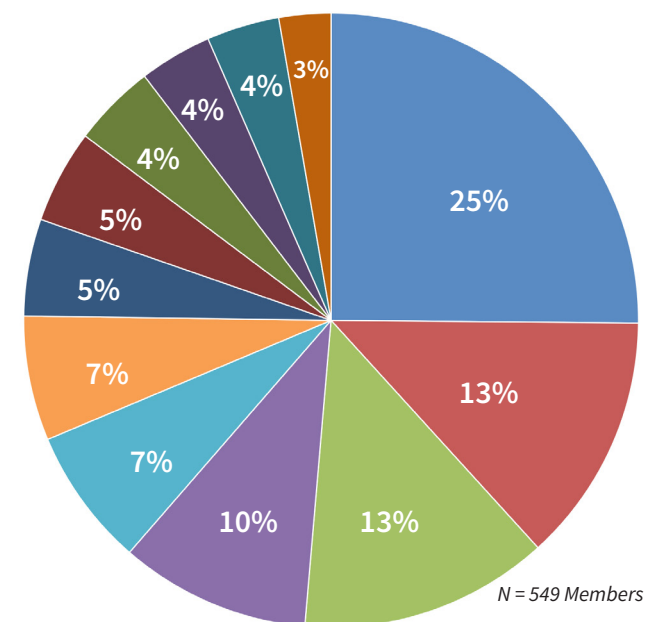
- Trigger innovative research to make transformational discoveries.
- Marshall all disciplines at Stanford to improve the health of expectant mothers and children.
- Accelerate the translation of our discoveries into action.
- Expand the number of future leaders in maternal and child health.
- Play a leadership role locally and globally to promote maternal and child health.



Toni Bird Photography courtesy of the Lucile Packard Foundation for Children's Health

## OUR COMMUNITY

FY18 CHRI Membership by Department

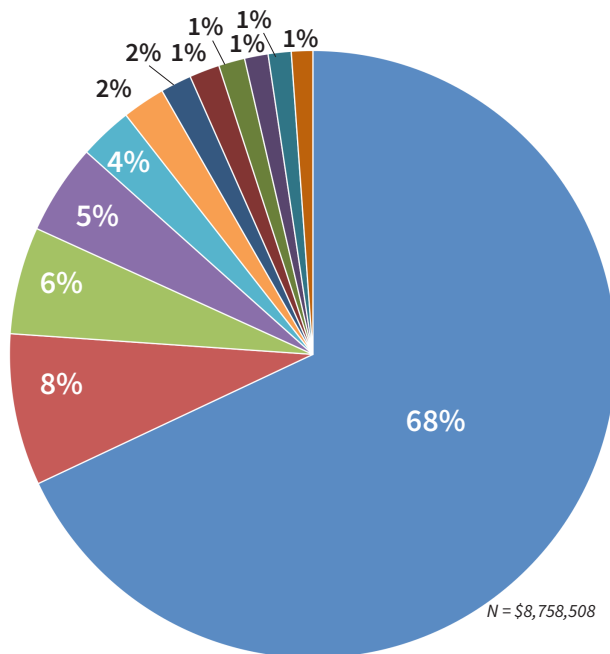


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|------------------------------------|--------------------------------|
| ■ Pediatrics                       | ■ Humanities & Sciences Depts. |
| ■ Medicine                         | ■ Radiology                    |
| ■ Other Depts.                     | ■ Pathology                    |
| ■ Basic Science Depts.             | ■ Surgery                      |
| ■ Psychiatry & Behavioral Sciences | ■ Engineering Depts.           |
| ■ Neurosurgery & Neurology Depts.  | ■ Obstetrics & Gynecology      |

Other Depts: Anesthesia, Dermatology, Biology, Cardiothoracic Surgery, Earth System Science, Energy Resources Engineering, Graduate School of Education, Law, Ophthalmology, Orthopaedic Surgery, Otolaryngology Head & Neck Surgery, Photon Science Directorate

## FUNDING OVERVIEW

FY18 Total Awarded Funding by Department



- |                        |                                    |
|------------------------|------------------------------------|
| ■ Pediatrics           | ■ Psychology                       |
| ■ Radiology            | ■ Surgery                          |
| ■ Ophthalmology        | ■ Neurosurgery & Neurology Depts.  |
| ■ Medicine             | ■ Psychiatry & Behavioral Sciences |
| ■ Other Depts.         | ■ Chemistry                        |
| ■ Chemical Engineering | ■ Basic Science Depts.             |

Other Depts: Dermatology, Electrical Engineering, Obstetrics & Gynecology, Orthopaedic Surgery, Pathology

# HIGHLIGHTS OF 2017-2018

Awarded **111** new grants for maternal and child health research across the University, for a total of

**\$8,758,508**

Created an **Education Committee**, launching the popular

## CHRI SEMINAR SERIES

providing collaboration and networking opportunities with 'hot' topics in maternal and child health.

**Sponsored Partnerships** with Global Child Health Equity Seed Grant Program, Suicide Prevention Through Outreach Grant Program, the Stanford Byers Center for Biodesign Faculty Fellowship, and Stanford Diabetes Research Center Pilot and Feasibility Seed Grants.

Increased funding for the **Postdoctoral Support Program** to

**\$2.4M ANNUALLY**

providing \$150K in salary support over two years to each recipient.

Drew nearly **400 participants** to the

## Childx

conference, titled "The Junction of Science, Medicine, Public Policy, and Health Care Delivery" chaired by Drs. Heidi Feldman and David Cornfield.

Sponsored **7 early-career investigators** to courses hosted by the **Eureka Institute for Translational Medicine**, a CHRI partner that builds, mentors, and trains an international cadre of leaders in translational medicine.

Boosted membership by more than **20%** with expansion of membership to Clinician Educators and Instructors, totaling

**540+ MEMBERS**

## 16,640 HOURS

of clinical research support were provided to Stanford Investigators on **124 research studies**.

Formed the **Clinical Research Informatics Working Group** in partnership with Stanford Children's Health, the first joint SoM hospital forum to tackle challenges in clinical research informatics.

Established **10 stable panels** with **78 reviewers** who review all CHRI-adjudicated programs; initiated an annual honorarium to scientific reviewers for their service.

Provided critical biostatistical support leading to submission of

## 17 NIH GRANTS

through partnership with Quantitative Sciences Unit.

## GRANTS AND FUNDING AWARDS

### Faculty Scholars

\$100K/Year for 3 to 5 Years

Program Co-Chairs

- Harvey Cohen, MD - Professor, Pediatrics
- David K. Stevenson, MD - Professor, Pediatrics

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#### Kara Davis, MD

Anne T. and Robert M. Bass Endowed Faculty Scholar in Pediatric Cancer and Blood Diseases (2018-2023)

Assistant Professor of Pediatrics (Hematology & Oncology)

Study Title: *Relapse Prediction and Mechanism of Drug Resistance of Acute Lymphoblastic Leukemia*

#### Elizabeth Egan, MD, PhD

The Tashia and John Morgridge Endowed Faculty Scholar in Pediatric Translational Medicine (2018-2023)

Assistant Professor of Pediatrics (Infectious Diseases)

Study Title: *Investigating Novel Host Erythrocyte Determinants of Malaria Infection*

#### Irene Loe, MD

Akiko Yamazaki and Jerry Yang Faculty Scholar in Pediatric Translational Medicine (2018-2023)

Assistant Professor of Pediatrics (Developmental Behavioral Pediatrics)

Study Title: *Promoting Growth Mindset: A School-Based Intervention Targeting Health, Behavior, and Learning in Underserved Communities*

#### Anisha Patel, MD

Arline and Pete Harman Faculty Scholar (2018-2021)

Associate Professor of Pediatrics (General Pediatrics)

Study Title: *Assessing the Cost of Water First: A School-Based Water Intervention to Prevent Childhood Obesity*

#### Avnesh Thakor, MD, PhD

Akiko Yamazaki and Jerry Yang Faculty Scholar in Pediatric Translational Medicine (2018-2023)

Assistant Professor of Radiology (Pediatric Radiology)

Study Title: *A Novel Approach for Treating Diabetes Using Pulsed Focused Ultrasound and Intra-Arterial Delivery of Mesenchymal Stem Cells, and their Associated Exosomes, Directly into the Pancreas*

#### Yang Sun, MD, PhD

Laurie Kraus Lacob Faculty Scholar in Pediatric Translational Medicine (2018-2023)

Associate Professor of Ophthalmology

Study Title: *Repurposing Drug to Treat Oculocerebral Renal Syndrome* Lowe

### Transdisciplinary Initiatives Program

\$100K/Year for 2 Years

**Study Title: Small Molecules to Inhibit CREB: CBP Interaction for Treatment of Childhood Acute leukemia**

PI: Kathleen Sakamoto, MD, PhD, School of Medicine (Pediatrics)  
Co-PIs: Soichi Wakatsuki, MD, PhD, SLAC National Accelerator Laboratory; Ron Dror, PhD, School of Engineering (Computer Science); Chaitan Khosla, PhD, School of Engineering (Chemical Engineering and Chemistry)

**Study Title: Low-Cost Volumetric Ultrasound Body Scanner for Pediatric Patients: Complete Abdominal 3D Imaging Without Radiation**

PI: Jeremy Dahl, PhD, School of Medicine, Radiology; Co-PIs: Boris Murmann, PhD, School of Engineering (Electrical Engineering); Sebastian Thrun, PhD, School of Engineering (Electrical Engineering); Biondo Biondi, PhD, School of Earth, Energy & Environmental Sciences (Geophysics); Co-Is: Safwan Halabi, MD, School of Medicine (Radiology); Carl Herickhoff, PhD, School of Medicine (Radiology)

**Study Title: Innovative Phenotyping and Therotyping of Newborns with Cystic Fibrosis**

PI: Carlos Milla, MD, School of Medicine (Pediatrics); Co-PIs: Jeffrey Wine, PhD, School of Humanities & Sciences (Psychology); Ron Kopito, PhD, School of Humanities & Sciences (Biology)

**Study Title: Development of a 3D Model for Human Placental Development to Improve Maternal and Child Health**

Co-PIs: Alexander Dunn, PhD, School of Engineering (Chemical Engineering); Katherine Bianco, MD, School of Medicine (Obstetrics & Gynecology); Co-Is: Roger Pedersen, PhD, School of Medicine (Obstetrics & Gynecology); Virginia Winn, MD, PhD, School of Medicine (Obstetrics & Gynecology); Ruth Lathi, MD, School of Medicine (Obstetrics & Gynecology); Vittorio Sebastiano, PhD, School of Medicine (Obstetrics & Gynecology)

### Clinical (MD) Trainee

100% Salary & Benefits Support for Up to 2 Years

Program Co-Chairs

- Daniel Bernstein, MD - Professor, Pediatrics
- Gerald Grant, MD, FACS - Professor, Neurosurgery

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#### Ananta Addala, DO, MPH

Ernest and Amelia Gallo Endowed Postdoctoral Fellow Clinical Fellow, Pediatrics (Endocrinology & Diabetes)

Study Title: *The Gatekeeper Study: Assessing and Addressing Provider Implicit Bias and its Impact on diabetes Technology Usage*

#### Yair Bannett, MD

Charles B. Woodruff Endowed Fellow

Clinical Fellow, Pediatrics (Developmental Behavioral Pediatrics)

Study Title: *Management of Developmental and Behavioral Conditions in Primary Care: Objective Measures of Variation*

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ADJUDICATED MORE THAN  
**250+ APPLICATIONS**  
SUBMITTED FOR FUNDING  
OPPORTUNITIES

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**Julia Chandler, MD, MS**

Ernest and Amelia Gallo Endowed Postdoctoral Fellow  
 Clinical Fellow, Medicine (General Surgery)  
*Study Title: Improving Care for Pediatric Trauma patients: Screening and Secondary Prevention for Post-Traumatic Stress*

**Kevin Chi, MD**

Elizabeth and Russell Siegelman Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Hospital Medicine)  
*Study Title: Parental Perspectives on Pulse Oximeter use in Bronchiolitis Hospitalizations: A Family-Centered Approach to Minimizing Overtreatment of Hypoxemia*

**Kathleen Collins, MD**

Pete and Arline Harman Fellow  
 Clinical Fellow, Pediatrics (Allergy, Immunology & Rheumatology)  
*Study Title: Injection Fear in Juvenile Idiopathic Arthritis Patients Using Injectable Medications*

**Sarah Dubner, MD**

Tashia and John Morgridge Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Developmental Behavioral Pediatrics)  
*Study Title: Inflammation, White matter Microstructure, and Neurodevelopmental Outcomes in Preterm Infants*

**Maria de Lourdes Eguiguren Jimenez, MD**

Pete and Arline Harman Fellow  
 Clinical Fellow, Pediatrics (Infectious Diseases)  
*Study Title: Epidemiology of Antifungal Utilization in Hospitalized Children with Cancer*

**Lakshmi Ganesan, MD, MAS**

Stephen Bechtel Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Nephrology)  
*Study Title: Assessing the Adequacy of Peritoneal Dialysis in Children*

**Eric Hamberger, MD**

Elizabeth and Russell Siegelman Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Pulmonary Medicine & Cystic Fibrosis)  
*Study Title: Lung Health Risk Behaviors and perceptions in Adolescents with Cystic Fibrosis*

**Anne McHugh, MD**

Stephen Bechtel Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Allergy, Immunology & Rheumatology)  
*Study Title: Prevalence of Behavioral Problems in patients with Juvenile Spondyloarthritis*

**Kiran Mudambi, MD**

Ernest and Amelia Gallo Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Gastroenterology)  
*Study Title: Contrast-Enhanced Ultrasound (CEUS) in Pediatric Crohn's Disease: A Stratified Reliability Study Comparing CEUS to Magnetic Resonance Imaging (MRI) in Evaluating Small Bowel Disease*

**Rajdeep Pooni, MD**

Tashia and John Morgridge Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Allergy, Immunology & Rheumatology)  
*Study Title: Evaluating the Impact of an Interactive Secure Messaging Platform on Transition Readiness in Pediatric Rheumatology Patients*

**Katelyn M. Saarela, DO**

Elizabeth and Russell Siegelman Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Gastroenterology)  
*Study Title: Characterizing CD8+ T-cell Mediated Liver Injury in Pediatric Indeterminate Acute Liver Failure*

**Rebecca Saenz, MD, PhD**

Tashia and John Morgridge Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Allergy, Immunology & Rheumatology)  
*Study Title: Role of ATM in Human Peripheral T-Cell Survival and Function*

**Christopher Severyn, MD, PhD, FAAP**

Pete and Arline Harman Fellow  
 Clinical Fellow, Pediatrics (Hematology & Oncology)  
*Study Title: Influence of the Microbiome on Hematology/Oncology Patients in Order to Improve Outcomes*

**Melissa Shah, MD, MPH**

Stephen Bechtel Endowed Postdoctoral Fellow  
 Clinical Fellow, Medicine (Infectious Diseases & Geographic Medicine)  
*Study Title: Malaria and Arbovirus Co-Infections in Kenyan Children*

**Danielle Shin, MD, PhD**

Rosa A. Wann and Marjorie Shannon Fellow  
 Clinical Fellow, Pediatrics (Hematology & Oncology)  
*Study Title: Preleukemic Stem Cells and Clonal Evolution in Pediatric AML*

**Vaka K. Sigurjonsdottir, MD**

Tashia and John Morgridge Endowed Postdoctoral Fellow  
 Clinical Fellow, Pediatrics (Nephrology)  
*Study Title: Are De Novo Complement-Activating Donor Specific Antibodies Highly Responsive to Therapy?*

**Stephanie Smith, MD, MPH**

Rosa A. Wann and Marjorie Shannon Fellow  
 Clinical Fellow, Pediatrics (Hematology & Oncology)  
*Study Title: SPOTT: Stanford pediatric Oncology Targeted Therapy Cohort*

**That Nam Tran (Sony) Ton, MD**

Marion and Jack Euphrat Pediatric Translational Medicine Fellow  
 Clinical Fellow, Pediatrics (Nephrology)  
*Study Title: Using a Novel Dynamic Assessment of Renal Function to Predict Acute Kidney Injury in Children*

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**\$3.3 MILLION**  
 AWARDED TO 44 CLINICAL  
 FELLOWS, POSTDOCS, AND  
 MASTER'S STUDENTS

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### Postdoctoral Support Up to \$75K/Year for 2 Years

#### Program Panel Chairs

- Jeffrey A. Feinstein, MD, MPH - Professor, Pediatrics
- Julien Sage, PhD - Professor, Pediatrics
- Kathleen Sakamoto, MD, PhD - Professor, Pediatrics
- Hsi-Yang Wu, MD - Associate Professor, Urology

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#### Brandon Cieniewicz, PhD

Postdoctoral Fellow, Pediatrics (Stem Cell Transplantation)

Study Title: *Understanding Type 1 T Regulatory Cell (Tr1) Recognition and Killing of Acute Myeloid Leukemia*

#### Ann Collier, PhD

Postdoctoral Fellow, Dermatology (Epithelia Biology)

Study Title: *Mechanisms of Chromatin Remodeling During Epithelial Development*

#### Taylor Kathryn Johnson, PhD

Postdoctoral Fellow, Chemical & Systems Biology

Study Title: *Mechanistic Studies and Pharmacological inhibition of Oncogenic ARHGAP36 Activity*

#### Amy Krystosik, MPH, PhD

Postdoctoral Fellow, Pediatrics (Infectious Disease)

Study Title: *The use of Spatial Video Geonarratives to Describe Localized Environmental Risk Patterns for Arboviral Transmission in Urban Kenya*

#### Stephanie Leonard, PhD

Postdoctoral Fellow, Pediatrics (Neonatal & Developmental Medicine)

Study Title: *Understanding Severe Maternal Morbidity: Predictors and Trends*

#### Jie Li, PhD

Postdoctoral Fellow, Neurosurgery

Study Title: *Bridging the Gap in Fragile-X Syndrome Research: Experience-Dependent Alteration in Synaptic and Cognitive Function*

#### Jeff Mao-Hwa Liu, PhD

Postdoctoral Fellow, Pediatrics (Stem Cell Transplantation)

Study Title: *Comparing In Vivo Efficacy of Novel Subsets and Optimizing Production of Engineered Type-1 Regulatory Cells for Treatment of Graft-Versus-Host Disease*

#### Berenice Mbiribindi, PhD

Postdoctoral Fellow, Surgery (Transplant)

Study Title: *NK Cell Recognition of Peptides Encoded by EBV Latent Cycle Proteins*

#### Karma McKelvey, MD, PhD

Postdoctoral Fellow, Pediatrics (Adolescent Medicine)

Study Title: *Evaluation of Tobacco Prevention Toolkit 10 Session Curriculum*

#### Christian Ngouadjio Nguetse, PhD

Postdoctoral Fellow, Pediatrics (Infectious Diseases)

Study Title: *Genetic Variation in Erythrocyte Receptors for Plasmodium Falciparum Invasion and Severe Malaria*

#### Krista Sigurdson, PhD

Postdoctoral Fellow, Pediatrics (Neonatal & Developmental Medicine)

Study Title: *Developing Measures for Family-Centered Care in the NICU*

#### Gavin Daniel Tempest, PhD

Postdoctoral Fellow, Psychiatry & Behavioral Sciences

Study Title: *Moving Towards the Use of Exercise to Manage Symptoms of Attention Deficit/Hyperactivity Disorder*

#### Katie Sassandra Walter, PhD

Postdoctoral Fellow, Infectious Diseases

Study Title: *Reconstructing the Spread of Oral Polio Virus Vaccine in Mexican Communities*

#### Mark C. Wilkes, PhD

Postdoctoral Fellow, Pediatrics (Hematology & Oncology)

Study Title: *SATB1 Regulation in Erythropoiesis and the Pathogenesis of Diamond Blackfan Anemia*

### Pilot Grant Programs

#### Program Co-Chairs

- Paul C. Grimm, MD - Professor, Pediatrics
- Gary M. Shaw, DrPH - Professor, Pediatrics

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### New Idea Grants

#### \$35K for 1 Year

#### Kanwaljeet S. Anand, MBBS, DPhil

Professor, Pediatrics (Critical Care Medicine) and Anesthesiology, Perioperative & Pain Medicine

Study Title: *Biomarkers of Risk and Resilience in Preschool Children*

#### Rosa Bacchetta, MD

Associate Professor, Pediatrics (Stem Cell Transplantation)

Study Title: *Applying CyTOF to Dissect Autoimmunity in Pediatric Patients with Primary Immunodeficiencies*

#### Daniel Bernstein, MD

Professor, Pediatrics (Cardiology)

Study Title: *Identifying the Mechanisms of Stress-Induced Mitochondrial Hyperpolarization*

#### Ian H. Gotlib, MD, PhD

Professor, Psychology

Study Title: *Neural Foundations of Maternal Emotion Regulation: Examining a Risk Factor for Child Maltreatment*

#### Kathleen Sakamoto, MD, PHD

Professor, Pediatrics (Hematology & Oncology)

Study Title: *Molecular Characterization of RSK in Acute Myeloid Leukemia*

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“By increasing support for our Postdoctoral Support Program, we expand the breadth and depth of our commitment across both clinical and non-clinical departments here at Stanford. CHRI awardees and their mentors now have additional means to tackle challenging scientific questions and potentially translate their discoveries into action.

Anthony Oro, MD, PhD  
CHRI Co-Director

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**Virginia Winn, MD, PhD**

Associate Professor, Obstetrics & Gynecology (Reproductive, Stem Cell & Perinatal Biology)  
*Study Title: Early Prediction of Preeclampsia via Machine Learning*

**Early Career Grants**  
**\$35K for 1 Year**

**Bereketeab Haileselassie, MD, MHS**

Instructor, Pediatrics (Critical Care)  
*Study Title: The Role of Altered Mitochondrial Dynamics in Sepsis-Induced Myocardial Dysfunction (SIMD)*

**Juliet Knowles, MD**

Instructor, Neurology & Neurological Sciences  
*Study Title: Cause and Functional Impact of Abnormal Myeline in Absence Epilepsy*

**Daniel Tawfik, MD, PhD**

Instructor, Pediatrics (Critical Care)  
*Study Title: Development of an Adjusted Nurse Staffing Metric in the Neonatal Intensive Care Unit*

**Xinming Tong, PhD**

Instructor, Orthopedic Surgery  
*Study Title: Biological Repair of Orofacial Clefts Using Stem Cells and Sliding Hydrogels*

**Clinician Educator**  
**\$35K for 1 Year**

Program Co-Chairs  
 • Bertil Glader, MD, PhD - Professor, Pediatrics  
 • Deirdre J. Lyell, MD - Professor, Obstetrics & Gynecology

**Jennifer Frankovich, MS, MD**

Clinical Associate Professor, Pediatrics (Rheumatology)  
*Study Title: Defining KIR and HLA Class I Genotypes at Highest Resolution via High-throughput Sequencing in Caucasian Patients with PANS and Caucasian Controls*

**Anita Kishore, MD**

Clinical Associate Professor, Psychiatry (Child & Adolescent Psychiatry)  
*Study Title: Examining the Impact of Outdoor Psychiatric Treatment on Anxiety and Affective Response*

**Shiraz Maskatia, MD**

Clinical Assistant Professor, Pediatrics (Pediatric Cardiology)  
*Study Title: Limited Cardiac MRI vs Echocardiography to Assess Systolic Function in Duchenne Muscular Dystrophy*

**Annette Nasr, RN, PhD**

Clinical Associate Professor, Pediatrics (Gastroenterology)  
*Study Title: Understanding the Long-Term Relationship of the Parental Live Liver Donor and the Adolescent Young Adult Dyad*

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16 PILOT GRANTS  
 (CLINICAL EDUCATOR, EARLY CAREER, & NEW IDEA)  
 RECEIVED A TOTAL OF  
**\$541,026**

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**Meera Sankar, MD**

Clinical Associate Professor, Pediatrics (Neonatal & Developmental Medicine)  
*Study Title: Barriers to Optimal Breast Milk Provision and Successful Breastfeeding in the NICU Setting*

**Melissa Scala, MD**

Clinical Assistant Professor, Pediatrics (Neonatal & Developmental Medicine)  
*Study Title: The Starling Study: Evaluation of a Novel Device for Characterizing the Language Environment of the NICU*

**Bridge Support**  
**Up to \$100K for 1 Year**  
*\$50K from CHRI, \$50K Cost Share from Department*

Program Chair  
 Anthony Oro, MD, PhD - Professor, Dermatology

**Manisha Desai, PhD**

Professor, Medicine (Center for Biomedical Informatics Research) and Biomedical Data Science  
*Study Title: Novel Statistical Methods for Analysis of Accelerometer Data: Improving Estimates of Children's Physical Activity, Sedentary Behavior and Sleep in Free-Living Settings*

**Desiree LaBeaud, MD**

Associate Professor, Pediatrics (Infectious Diseases)  
*Study Title: Disentangling the Human Vector Relationship to Disrupt Dengue and Chikungunya Transmission in Kenya*

**Julie Parsonnet, MD**

Professor, Medicine (Infectious Diseases) and Health Research & Policy (Epidemiology)  
*Study Title: A Birth Cohort for Understanding Environmental Influences on Infant Immunity and Health*

**Master's Tuition**  
**Full Tuition & Fees Coverage**

**Devika Bhushan, MD**

Clinical Fellow, Pediatrics (General Pediatrics)  
 Master Student in Health Research & Policy

**Gregory Goldstein, MD**

Clinical Fellow, Pediatrics (Neonatal & Developmental Medicine)  
 Master Student in Health Research & Policy

**That Nam Tran (Sony) Ton, MD**

Clinical Fellow, Pediatrics (Nephrology)  
 Master Student in Health Research & Policy

**Rajdeep Pooni, MD**

Clinical Fellow, Pediatrics (Rheumatology)  
 Master Student in Health Research & Policy

### Eureka Institute for Translational Medicine

**Coralee Del Valle Mojica, MD, MPH**

Tashia and John Morgridge Endowed Postdoctoral Fellow; Pediatrics (Infectious Diseases)

**Tamar Green, MD**

Instructor, Psychiatry & Behavioral Sciences

**Marko Jakovljevic, PhD**

Postdoctoral Research Fellow, Radiology

**Sara Kreimer, MD**

Tashia and John Morgridge Endowed Postdoctoral Fellow; Clinical Assistant Professor, Pediatrics (Hematology & Oncology)

**Anupama Narla, MD**

Tashia and John Morgridge Faculty Scholar in Pediatric Translational Medicine; Assistant Professor, Pediatrics (Hematology & Oncology)

**Manpreet Singh, MD**

Akiko Yamazaki and Jerry Yang Faculty Scholar in Pediatric Translational Medicine; Assistant Professor, Psychiatry & Behavioral Sciences (Child & Adolescent Psychiatry)

**Sriram Vaidyanathan, PhD**

Postdoctoral Research Fellow, Pediatrics (Stem Cell Transplantation)

“*The Eureka course taught me to engage with the end game in science, which is a long-term vision rather than a vision for a specific research study or project. Engaging with this end-game has helped me realize the true potential and impact of the work we must do to meet the unmet needs of our patients.*”

*Manpreet Singh, MD  
2018 Eureka Participant*

## FUNDED PARTNERS AWARDS

### Cardiovascular Institute

**Christopher Gardner, PhD**

Professor, Medicine (Stanford Prevention Research Center)  
Co-Is: Michael Snyder, PhD, Genetics; Francois Haddad, MD, Medicine (Cardiology)  
*Study Title: Addressing the obesity and Diabetes epidemic through understanding personalized energy expenditure*

**Doff McElhinney, MD**

Professor, Cardiothoracic Surgery (Pediatrics Cardiac Surgery) and Pediatrics (Cardiology)  
*Study Title: Psychosocial, Cognitive, and Quality of Life Outcomes in Children and Adults with Repaired Tetralogy of Fallot with Pulmonary Atresia and Major Aortopulmonary Collateral Arteries*

**James Priest, MD**

Assistant Professor, Pediatrics (Cardiology)  
Co-I: Mads Melbye, MD, DMSc, Medicine (Primary Care & Population Health)  
*Study Title: A Sensitized Genetic Association Study for Congenital Heart Disease*

### Global Child Health Equity Seed Grant

**Jennifer Keller, PhD**

Clinical Associate Professor, Psychiatry & Behavioral Sciences  
*Study Title: Linguistic and Cultural Adaptation of the Building Empowerment and Resilience Program for Adolescent Girls in Gujarat, India*

**Clea Sarnquist, DrPH, MPH**

Senior Research Scholar and Lecturer, Pediatrics (Infectious Diseases)  
Co-PI: Michael Baiocchi, PhD, Medicine (Stanford Prevention Research Center); Co-I: Helen W. Wilson, PhD, Psychiatry & Behavioral Sciences  
*Study Title: Mental Health Issues and Violence Among Adolescents in the Nairobi Slums: Can Empowerment Programs Prevent or Mitigate Both?*

## SPARK

**Julie Baker, PhD**

Professor, Genetics  
*Study Title: (YR 2) A Non-invasive Diagnostic for Placenta Accreta*

**Carolyn Bertozzi, PhD**

Professor, Chemistry  
*Study Title: A PCR-Based Method for Sample-Sparing & Cost-Effective Diagnosis of Food Allergy Risk*

**Helen Blau, PhD**

Professor, Microbiology & Immunology  
*Study Title: Transient Telomere Extension to Treat Liver Failure in Dyskeratosis Congenita Patients*

**Tina Cowan, PhD**

Professor, Pathology  
*Study Title: A Small-Molecule Activator of AMPK for Treatment of Mitochondrial Disorders*

**Shirit Einav, MD**

Associate Professor, Medicine (Infectious Diseases) and Microbiology & Immunology  
*Study Title: An Assay for Predicting the Development of Severe Dengue Prior to its Onset*

**Jeffrey S. Glenn, MD, PhD**

Professor, Medicine (Gastroenterology & Hepatology) and Microbiology & Immunology  
*Study Title: Leveraging Enterovirus Dependency on the Human Host Factor PIP5k1a for the Development of a Potent Broad-Spectrum Antiviral*

**Stuart Goodman, MD, PhD**

Professor, Orthopedic Surgery  
*Study Title: Engineered Mesenchymal Stem Cell Therapy to Promote Immunological Tolerance to Pancreatic Islets*

**Mark A. Kay, MD, PhD**

Professor, Pediatrics (Human Gene Therapy) and Genetics  
*Study Title: Enhancement of Adeno-Associated Virus-Mediated Homologous Recombination (AAV-HR) Through Inhibition of the FANCM Pathway*





The CHRI partners with several Stanford centers and institutes, including the Global Child Health Equity Seed Grant Program, to sponsor projects that aim to improve the health of pregnant women and children locally and globally.

**Matthew Porteus, MD, PhD**

Associate Professor, Pediatrics (Stem Cell Transplantation)

*Study Title: (YR 2) Genome Edited Airway Stem Cells as a Durable Cell-Based Therapy to Treat Cystic Fibrosis*

**Robert M. Waymouth, PhD**

Professor, Chemistry

*Study Title: CARTS: New Materials Enable a New Platform Technology for Gene Delivery, Vaccinations, and Cancer Immunotherapy*

**Stanford Byers Center for Biodesign Faculty Fellowship**

**Scott Hoffinger, MD**

Clinical Professor, Orthopedic Surgery

*Project concept: A way to diagnose compartment syndrome in the extremities before irreversible tissue damage occurs, with accuracy sufficient to prevent the need for prophylactic fasciotomy.*

**Wui Ip, MD**

Clinical Instructor, Pediatrics

*Project concept: A way to maintain peripheral vascular access in hospitalized patients to minimize its failure.*

**Doff McElhinney, MD**

Professor, Cardiothoracic Surgery and Pediatrics (Cardiology)

*Project concept: A way to mitigate the physiologic consequences of functional tricuspid regurgitation in patients with this condition to provide symptom improvement.*

**Priya Prahalad, MD, PhD**

Clinical Assistant Professor, Pediatrics (Endocrinology & Diabetes)

*Project concept: A way to deliver timely, accurate medical advice to patients/caregivers to decrease unnecessary ED and urgent care visits.*

**Thomas Robinson, MPH, MD**

Professor, Pediatrics (General Pediatrics) and Medicine (Stanford Prevention Research Center)

*Project concept: A way to make effective behavioral weight control more scalable and cost-effective for overweight children in order to reduce children's obesity-related morbidities.*

**Avnesh Thakor, MD, PhD**

Assistant Professor, Radiology (Pediatrics Radiology)

*Project concept: A way to self-screen for cervical cancer in women aged 21-65 in order to improve screening compliance according to national guidelines.*

**Stanford Diabetes Research Center Pilot and Feasibility Seed Grant**

**Eric A. Appel, PhD**

Assistant Professor, Materials Science & Engineering

Co-Is: Bruce Buckingham, MD, Pediatrics; David Maahs, MD, PhD; Pediatrics

*Study Title: Novel Ultra-fast Insulin Formulations for Diabetes Treatment*

**H. Tom Soh, PhD**

Professor, Electrical Engineering and Radiology

PI: Amani Hariri, PhD, Electrical Engineering and Radiology; ChEM-H Institute; Collaborators: Jelena Vuckovic, PhD, Electrical Engineering; Seung Kim, MD, PhD, Developmental Biology

*Study Title: Real-time Biosensor for Continuous in Vivo Detection of Glucose*

**Suicide Prevention Through Outreach Grant Program**

**Study Title: Understanding Silicon Valley Transitional-Aged Male Youth (USV-TAMY)**

PIs: Aparna Atluru, MD, Psychiatry & Behavioral Sciences (Child & Adolescent Psychiatry & Child Development) and Shelly Tran, MD, Psychiatry & Behavioral Sciences (Child & Adolescent Psychiatry & Child Development)

**Study Title: Sleep Disturbances as a Proposed Biomarker and Emergency Department (ED) Target: A Comprehensive Screening to Enhance Access to Care in the Prevention of Youth Suicide**

PI: Rebecca A. Bernert, PhD, Assistant Professor, Psychiatry & Behavioral Sciences

**Study Title: Smartphone Data Identification of Suicidality in Young Men with Bipolar Disorder**

PIs: Anda Gershon, PhD, Instructor, Psychiatry & Behavioral Sciences (Child & Adolescent Psychiatry & Child Development); Shefali Miller, MD, Psychiatry & Behavioral Sciences; Katarzyna Wac, PhD

**Study Title: Building Bridges to Adolescent Wellness by Promoting Healthy Media Portrayals**

PI: Shashank V. Joshi, MD, Associate Professor, Psychiatry & Behavioral Sciences (Child & Adolescent Psychiatry & Child Development) and, by courtesy, of Pediatrics (Operations) and of Graduate School of Education

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Development, LPFCH*

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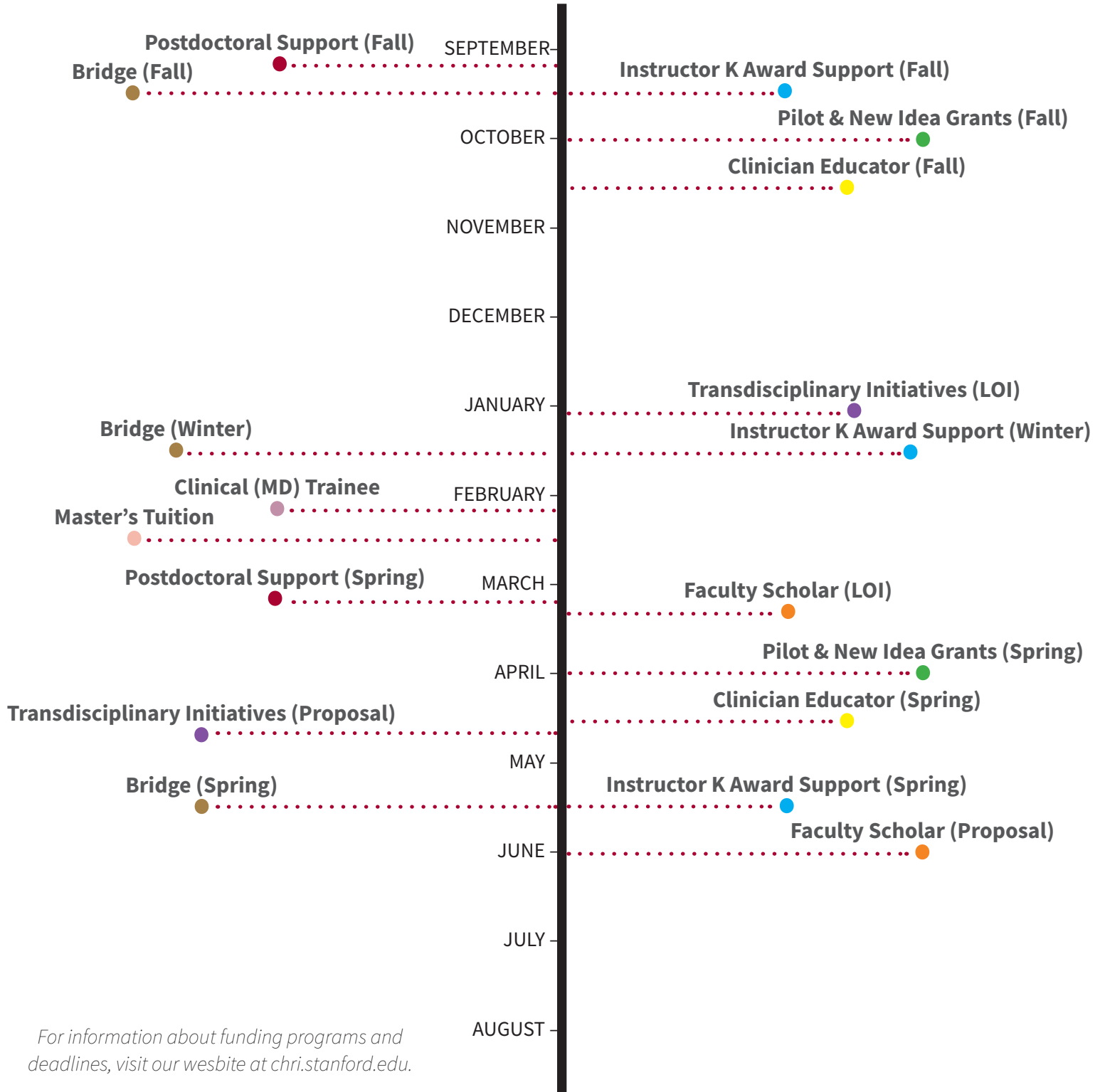
**Melissa Mavers, MD, PhD**

Instructor in Pediatrics (Stem Cell Transplantation)

**Trung Pham, MD, PhD**

Instructor in Pediatrics (Infectious Diseases)

# PROGRAM TIMELINE



For information about funding programs and deadlines, visit our website at [chri.stanford.edu](http://chri.stanford.edu).



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