



# ENGINEERING FOR CHILDREN'S HEALTH

1st Annual Symposium



January 12, 2017  
Mission Bay  
Conference Center  
San Francisco, CA



**UCSF**



**UCSF Benioff Children's Hospital**  
San Francisco

**Berkeley**  
UNIVERSITY OF CALIFORNIA

C · H · O · R · I

*Children's Hospital Oakland Research Institute*



## WHO WE ARE:

The Engineering for Children's Health Initiative is a collaborative effort between pediatric clinicians, researchers, engineers, scientists, and administrators from UCSF, UC Berkeley, the UCSF Benioff Children's Hospitals, and Children's Hospital Oakland Research Institute (CHORI).

## OUR VISION:

UCSF Benioff Children's Hospitals (BCH) strives to be among the very best children's health enterprises in the world - in research, teaching, and clinical care. The affiliation in 2014 of UCSF Benioff Children's Hospital with Children's Hospital Oakland created a UCSF clinical presence on both sides of the Bay, providing an unprecedented opportunity to link UCSF basic and translational science enterprises, CHORI's pediatric research efforts, and UC Berkeley's top-ranked engineering programs to redefine medical treatment for children in the 21st century.

The Engineering for Children's Health Initiative is dedicated to developing innovative technological solutions to improve patient safety, reduce health disparities, cure disease, and end disability for children by fostering interdisciplinary and industry collaborations, offering project seed funding, product development and advising services, and providing hands-on training experiences for residents and graduate students. The Initiative will leverage and integrate UCSF and UC Berkeley's outstanding resources in engineering, science, innovation, and entrepreneurship, such as the Jacobs Institute for Design Innovation at Berkeley, the FDA-funded Pediatric Device Consortium and the Surgical Innovations program at UCSF, and the UC Berkeley-UCSF Master of Translational Medicine and doctoral bioengineering programs into the world-class clinical environments of the UCSF Benioff Children's Hospitals Oakland and San Francisco.

# ENGINEERING FOR CHILDREN'S HEALTH

1st Annual Symposium  
Thursday, January 12, 2017  
San Francisco, CA

## AGENDA

8:00 - 8:30 Registration & Breakfast

8:30 - 8:40 Welcome

**Hanmin Lee, MD**

*Surgeon-in-Chief, UCSF Benioff Children's Hospital  
Professor & Chief, UCSF Division of Pediatric Surgery*

**Bertram Lubin, MD**

*Associate Dean of Children's Health, UCSF*

**Shuvo Roy, PhD**

*Professor, UCSF Department of Bioengineering & Therapeutic  
Sciences*

8:40 - 9:00 Opening Remarks

**Sam Hawgood, MBBS**

*Chancellor, UCSF*

**Nicholas Dirks, PhD**

*Chancellor, UC Berkeley*

**S. Shankar Sastry, PhD**

*Dean, UC Berkeley College of Engineering*

**Talmadge King, Jr., MD**

*Dean, UCSF School of Medicine*

## Part I Improving Patient Safety & Health Disparities Through Technology

Moderator: Bert Lubin

9:00 - 9:15 Social determinants of children's health

**Dayna Long, MD**

*Medical Director, UCSF Benioff Children's Hospital Oakland*

# AGENDA

9:15 - 9:30 Inside out network effect

**Ralph Gonzales, MD, MSPH**

*Associate Dean for Clinical Innovation, UCSF School of Medicine*

**Jessica Chao, PharmD, MBA**

*Program Director, UCSF Clinical Innovation Center*

9:30 - 9:45 Gamified microlearning to standardize care across children's hospitals

**Arup Roy-Burman, MD**

*Associate Professor, UCSF Department of Pediatrics*

*Co-founder & CEO, Elemeno Health*

9:45 - 10:00 Preventing Never Events for kids

**Hanmin Lee, MD**

*Surgeon-in-Chief, UCSF Benioff Children's Hospital*

*Professor & Chief, UCSF Division of Pediatric Surgery*

10:00 - 10:15 Printed and flexible pediatric MRI receiver coils

**Ana Claudia Arias, PhD**

*Associate Professor, UC Berkeley Department of Electrical*

*Engineering & Computer Sciences*

10:15 - 10:35 Break & Demos

## Part II Neurologic Disabilities: Current State & Hope for the Future

Moderator: Hanmin Lee

10:40 - 10:55 Harnessing the tools of brain development for recovery from brain injury

**Donna Ferriero, MD**

*Physician-in-Chief, UCSF Benioff Children's Hospital*

*Professor & Chair, UCSF Department of Pediatrics*

10:55 - 11:10 Towards a speech neuroprosthetic for restoring communication

**Edward Chang, MD**

*Associate Professor, UCSF Departments of Neurological Surgery &*

*Physiology*

# AGENDA

- 11:10 - 11:25 Phoenix: An exoskeleton for pediatric mobility disorders  
**Homayoon Kazerooni, PhD**  
*Professor, UC Berkeley Department of Mechanical Engineering  
Founder & CEO, SuitX*
- 11:25 - 11:40 Algorithms for human-robot interaction  
**Anca Dragan, PhD**  
*Assistant Professor, UC Berkeley Department of Electrical  
Engineering & Computer Sciences*
- 11:40 - 11:50 Exploration of AR/VR in medical training, treatment, and patient management  
**Allen Yang, PhD**  
*UC Berkeley Center for Augmented Cognition*
- 11:50 - 12:00 VR for procedural pain and anxiety  
**Simon Robertson**  
*KindVR*
- 12:00 - 1:00 Lunch & Demos

## Part III Medical Devices for Kids

Moderator: Shuvo Roy

- 1:00 - 1:15 Recent research in development engineering and children's health  
**Alice Agogino, PhD**  
*Professor, UC Berkeley Department of Mechanical Engineering*
- 1:15 - 1:30 Highlights from the UCSF Pediatric Device Consortium  
**Michael Harrison, MD**  
*Professor Emeritus, UCSF Departments of Surgery & Pediatrics*
- 1:30 - 1:45 Organ function replacement using silicon membranes  
**Shuvo Roy, PhD**

# AGENDA

1:45 - 2:00 Mobile microscopy applications in pediatric global health

**Michael D'Ambrosio, PhD**

*Research Scientist, Fletcher Lab, UC Berkeley Department of Bioengineering & Biophysics*

2:00 - 2:25 Break & Demos

## Part IV Stem Cell Delivery & Therapies for Pediatrics

Moderator: Bert Lubin

2:30 - 2:45 Long noncoding RNA regulation of neural stem cells and cancer

**Daniel Lim, MD, PhD**

*Associate Professor, UCSF Department of Neurological Surgery*

2:45 - 3:00 Stem cell transplant for alpha thalassemia

**Tippi MacKenzie, MD**

*Associate Professor, UCSF Division of Pediatric Surgery*

## Part V Panel Discussion: Catalyzing Opportunities for the Engineering for Children's Health Initiative

Moderator: Hanmin Lee

3:00 - 4:00

**Michael Anderson, MD**

*President, UCSF Benioff Children's Hospitals*

**Tejal Desai, PhD**

*Professor & Chair, UCSF Department of Bioengineering & Therapeutic Sciences*

**Sanjay Kumar, MD, PhD**

*Professor & Associate Chair, UC Berkeley Department of Bioengineering*

**Bertram Lubin, MD**

*Associate Dean of Children's Health, UCSF*

4:00 - 5:30 Closing Remarks & Cocktail Reception

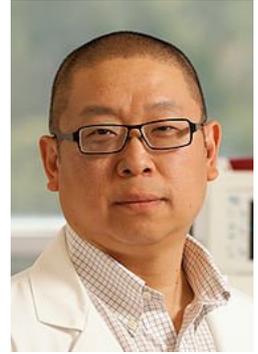
# HOSTS

## Hanmin Lee, MD

*Surgeon-in-Chief, UCSF Benioff Children's Hospital  
Professor & Chief, UCSF Division of Pediatric Surgery*

Dr. Lee is a leader in the fields of fetal surgery and pediatric minimally invasive surgery. His research interests include proteomic assessment of fetal-maternal diseases, developing innovative devices to improve patient safety, and integration of emerging technologies into clinical surgery. In addition to his clinical and teaching roles, he directs the UCSF Fetal Treatment Center and Department of Surgery's Surgical Innovations program.

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## Bertram Lubin, MD

*Associate Dean of Children's Health, UCSF*

Dr. Lubin joined Children's Hospital & Research Center Oakland in 1973 as Chief of Hematology/Oncology and later served as its Director of Medical Research. Most recently, he was the President and CEO of UCSF Benioff Children's Hospital Oakland. His research has focused on red cell membrane structure in normal and pathologic states, sickle cell anemia, public health initiatives related to newborn screening for hemoglobin disorders, and national cord blood banking programs.

blubin@mail.cho.org



## Shuvo Roy, PhD

*Professor, UCSF Department of Bioengineering & Therapeutic Sciences*

Dr. Roy is a bioengineer focusing on the development of medical devices to address unmet clinical needs through a multidisciplinary approach. Dr. Roy serves as technical director of The Kidney Project, a national research project to develop an implantable total renal replacement therapy, and is a founding director of the UCSF Pediatric Device Consortium and Surgical Innovations programs. Prior to joining UCSF's faculty, Dr. Roy co-directed the BioMEMS Laboratory at the Cleveland Clinic.

shuvo.roy@ucsf.edu



## OPENING REMARKS



### Sam Hawgood, MBBS

*Chancellor, UCSF*

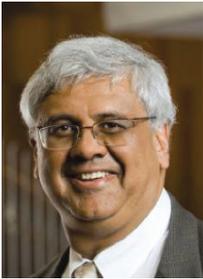
Dr. Hawgood joined UCSF in 1982 as a research fellow in neonatology. He built his research career on the study of pulmonary surfactant for premature babies, and maintained his laboratory through 2015, when he was appointed Chancellor. His distinguished career at UCSF includes serving as the Chair of the Department of Pediatrics, Associate Director of the Cardiovascular Research Institute, Vice Chancellor for Medical Affairs, and Dean of the School of Medicine.



### Nicholas Dirks, PhD

*Chancellor, UC Berkeley*

An internationally renowned historian and anthropologist, UC Berkeley Chancellor Nicholas Dirks is a leader in higher education and well-known for his commitment to innovation across the disciplines as well as in applied and basic fields. Previously, he was the Executive Vice President for the Arts and Sciences and Dean of the Faculty at Columbia University.



### S. Shankar Sastry, PhD

*Dean, UC Berkeley College of Engineering*

Dr. S. Shankar Sastry joined the Electrical Engineering & Computer Sciences faculty at UC Berkeley in 1983. Prior to his role as Dean, he directed the Center for Information Technology in the Interest of Society (CITRIS), an interdisciplinary center spanning UC Berkeley, Davis, Merced, and Santa Cruz. Dr. Sastry is the NEC Distinguished Professor of EECS and faculty director of the Blum Center for Developing Economies.



### Talmadge King, Jr., MD

*Dean, UCSF School of Medicine*

Dr. King was named Dean of the UCSF School of Medicine and Vice Chancellor for Medical Affairs in May of 2015. An international expert on lung disorders, he began his career at UCSF in 1997 as Chief of Medical Services at the Priscilla Chan and Mark Zuckerberg San Francisco General Hospital and Trauma Center and Chair of the UCSF Department of Medicine.

# SPEAKERS

## Dayna Long, MD

*Medical Director, UCSF Benioff Children's Hospital Oakland Center for Community Health and Engagement*

Dr. Long is a staff pediatrician at UCSF Benioff Children's Hospital Oakland. She is one of the founders and co-medical director of the Family Information and Navigation Desk (FIND), which aims to minimize the social and environmental factors that have a negative effect on the health of patients and their families.

[dlong@mail.choc.org](mailto:dlong@mail.choc.org) | [@daynalong3](https://twitter.com/daynalong3)



## Ralph Gonzales, MD, MSPH

*Associate Dean for Clinical Innovation, UCSF School of Medicine*

Dr. Gonzales is Associate Dean for Clinical Innovation and Chief Innovation Officer for UCSF Health. His research, which has been instrumental in combating antimicrobial resistance nationally and globally, is multidisciplinary, patient-centered, and informed by relevant stakeholders and policy makers such as the CDC, NCQA, professional societies, and community clinicians and patients.

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## Jessica Chao, PharmD, MBA

*Program Director, UCSF Clinical Innovation Center*

Dr. Chao directs the UCSF Clinical Innovation Center, which is tasked to develop the infrastructure and internal capacity to accelerate innovations that solve critical delivery system problems at UCSF Health. The program partners with internal and external entities to analyze, prototype, test, implement, and evaluate solutions that target organizational priorities.

[jessica.chao@ucsf.edu](mailto:jessica.chao@ucsf.edu)



# SPEAKERS



## Arup Roy-Burman, MD

*Associate Professor, UCSF Department of Pediatrics  
Co-founder & CEO, Elemeno Health*

Dr. Roy-Burman is a faculty member in the UCSF Department of Pediatrics and an entrepreneur. After serving as Medical Director of the Pediatric ICU and Director of Transport and Access at UCSF Benioff Children's Hospital, he developed and launched Elemeno Health, a mobile and desktop app that helps frontline healthcare staff in generating, learning, and adhering to best practices.

arup@elemenohealth.com | @elemenohealth



## Ana Claudia Arias, PhD

*Associate Professor, UC Berkeley Department of  
Electrical Engineering & Computer Sciences*

Dr. Arias joined UC Berkeley EECS in 2011 from PARC, a Xerox company. Her research focuses on the use of electronic materials processed from solution in flexible electronic systems. She uses printing techniques to fabricate flexible large area electronic devices and sensors.

acarias@eecs.berkeley.edu



## Donna Ferriero, MD

*Physician-in-Chief, UCSF Benioff Children's Hospital  
Professor & Chair, UCSF Department of Pediatrics*

Dr. Ferriero is an expert in epilepsy, neuromuscular disease, developmental disabilities, cancer, and newborns and children with neurological disabilities. Her laboratory has been critical in defining the role of oxidative stress during hypoxia-ischemia and the relationship of selectively vulnerable populations of neural cells during maturation-dependent injury.

donna.ferriero@ucsf.edu | @dmferriero

# SPEAKERS

## Edward Chang, MD

*Associate Professor, UCSF Departments of Neurological Surgery & Physiology*

Dr. Chang's clinical expertise is in surgical therapies for intractable epilepsy, trigeminal neuralgia, pain, hemifacial spasm, and adult brain tumors. His research specializes in advanced neurophysiologic brain mapping methods, including awake speech and motor mapping to safely perform neurosurgical procedures in eloquent areas of the brain.

changed@neurosurg.ucsf.edu



## Homayoon Kazerooni, PhD

*Professor, UC Berkeley Department of Mechanical Engineering  
Founder & CEO, SuitX*

Dr. Kazerooni leads the Berkeley Robotics and Human Engineering Laboratory. He has developed affordable robotics systems that have enhanced both human upper and lower extremity strength. His company, SuitX, is currently developing the Phoenix exoskeleton, designed to help people with mobility disorders.

kazerooni@berkeley.edu | @usbionics



## Anca Dragan, PhD

*Assistant Professor, UC Berkeley Department of Electrical Engineering & Computer Sciences*

Dr. Dragan's research is aimed at enabling robots to work with, around, and in support of people. She runs the InterACT Lab at Berkeley, which develops algorithms for human-robot interaction that move beyond the robots' function in isolation to allow for interaction and coordination with end users.

anca@berkeley.edu



# SPEAKERS



## Allen Yang, PhD

*Executive Director, Center for Augmented Cognition  
Chief Scientist, Coleman Fung Institute for Engineering  
Leadership, UC Berkeley*

Dr. Yang leads the Center for Augmented Cognition, which focuses on new computing paradigms and methodologies of human cognition modeling, human-computer interaction, and human-robot collaboration through augmented and virtual reality technologies.

[yang@eecs.berkeley.edu](mailto:yang@eecs.berkeley.edu)

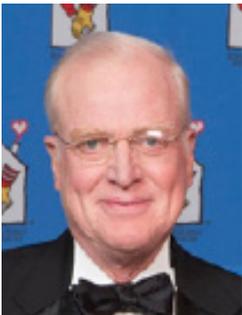


## Alice Agogino, PhD

*Professor, UC Berkeley Department of Mechanical  
Engineering*

Dr. Agogino directs the BEST Lab: Berkeley Energy and Sustainable Technologies, Berkeley Expert Systems Technology, Berkeley Emergent Space Tensegrities. Her research interests include soft robotics, development engineering, intelligent learning systems, wireless sensor networks, and artificial intelligence and decision and expert systems.

[agogino@berkeley.edu](mailto:agogino@berkeley.edu) | [@agogino](https://twitter.com/agogino)



## Michael Harrison, MD

*Professor Emeritus, UCSF Departments of Surgery &  
Pediatrics*

Widely regarded as the “father of fetal surgery,” Dr. Harrison is the founding director of UCSF’s Fetal Treatment Center. His current research focuses on pediatric device development, particularly devices employing the use of magnetic force. He is the founding director of the UCSF Pediatric Device Consortium, an FDA-funded open-access resource for pediatric device innovators.

[michael.harrison@ucsf.edu](mailto:michael.harrison@ucsf.edu)

# SPEAKERS

## Michael D'Ambrosio, PhD

*Research Scientist, Fletcher Lab, UC Berkeley  
Department of Bioengineering & Biophysics*

As a member of UC Berkeley's Fletcher Lab, Dr. D'Ambrosio is developing the CellScope, a smart-phone microscope which provides accurate, fast results that enable health workers to make potentially life-saving treatment decisions in the field. The lab is developing new ways to use mobile phone and tablet cameras to collect images for medical, scientific, and educational purposes.

[mdambrosio@berkeley.edu](mailto:mdambrosio@berkeley.edu)



## Daniel Lim, MD, PhD

*Associate Professor, UCSF Department of Neurological  
Surgery*

The focus of Dr. Lim's research is on neural stem cells, neurogenesis, and the development of neurosurgical devices for cell transplantation to the human brain. He is particularly interested in the molecular biology of neural stem cells found in the subventricular zone. Dr. Lim has clinical interests in stereotactic neurosurgery and has studied deep brain stimulation for movement disorders.

[daniel.lim@ucsf.edu](mailto:daniel.lim@ucsf.edu)



## Tippi MacKenzie, MD

*Associate Professor, UCSF Division of Pediatric Surgery*

Dr. MacKenzie researches the mechanisms of tolerance induction following in utero stem cell transplantation and the pathophysiology of prenatally diagnosed diseases such as congenital diaphragmatic hernia and gastroschisis to identify biomarkers that predict prognosis and molecular pathways that may be targets for prenatal intervention.

[tippi.mackenzie@ucsf.edu](mailto:tippi.mackenzie@ucsf.edu)



## PANELISTS



### Michael Anderson, MD

*President, UCSF Benioff Children's Hospitals*

Dr. Anderson was named President of UCSF Benioff Children's Hospitals and Senior Vice President of Children's Services for UCSF Health in December of 2016. He is a sought-after authority on children's health policy, pediatric disaster preparedness, system quality, and physician workforce. Previously, Dr. Anderson was Vice President and Chief Medical Officer for University Hospitals in Cleveland and Professor of Pediatrics at Case Western Reserve School of Medicine.



### Tejal Desai, PhD

*Professor & Chair, UCSF Department of Bioengineering & Therapeutic Sciences*

Dr. Desai's research at the Therapeutic Microtechnology and Nanotechnology Laboratory focuses on the design, fabrication, and use of advanced microtechnology and nanotechnology to create new medical therapeutics. Her lab is interested in how alterations in microstructure and nanostructure can be used to modulate molecular and cellular behavior, and develop better technologies and therapies for patients.



### Sanjay Kumar, MD, PhD

*Professor & Associate Chair, UC Berkeley Department of Bioengineering*

Dr. Kumar and his research team seek to understand and control biophysical communication between cells and their surroundings. He is especially interested in understanding the role played by cellular mechanobiological signaling in tumor and stem cell biology in the central nervous system and developing new materials based on cellular structural networks that may have broader applications in biotechnology and soft materials science.

# DEMOS

## Lucasfilm ILMxLAB

The Rogue One: Recon is a short immersive experience created by ILMxLAB connected to “Rogue One: A Star Wars Story.” It provides a 360-degree look at space from the perspective of a Rebel X-Wing pilot. As an every day X-Wing pilot flying for the Rebellion, be immediately immersed in the vastness of space with only your R2 unit and wingman by your side. What starts as a routine mission for Mon Mothma takes a sharp turn as you stumble upon unexpected Imperial presence - and sometimes they will do anything to keep hidden.

Website: [ilmxlab.com](http://ilmxlab.com) | [@ilmxlab](https://twitter.com/ilmxlab)  
Contact: Kaitlyn Marshall ([kashiple@lucasfilm.com](mailto:kashiple@lucasfilm.com))



## SuitX Phoenix Exoskeleton

The Phoenix exoskeleton is the world’s lightest and most advanced exoskeleton designed to help people with mobility disorders. In the clinic, at home, and in the workplace, Phoenix has successfully enabled many individuals to stand up, walk about, and speak to peers eye-to-eye. Phoenix has only two actuators at its hip; the knee joints are designed to allow support during stance and ground clearance during swing.

Website: [suitx.com](http://suitx.com) | [@usbionics](https://twitter.com/usbionics)  
Contact: Kathy Arana ([kathy@suitx.com](mailto:kathy@suitx.com))

## Tabla

Every year, over a million adults and children die of pneumonia—most in areas without access to chest x-rays. Tabla aims to detect pneumonia using acoustic technology in a portable hardware platform providing care to regions without access to advanced medical infrastructure. The device was developed by UCSF MD/PhD candidate Adam Rao in Dr. Shuvo Roy’s Biodesign Lab.

Website: [pharm.ucsf.edu/roy](http://pharm.ucsf.edu/roy)  
Contact: Adam Rao ([adam.rao@ucsf.edu](mailto:adam.rao@ucsf.edu))



## DEMOS



### KindVR

KindVR's mission is to help patients mitigate pain and stress by developing virtual reality software for specific medical procedures and conditions. As a partner with UCSF Benioff Children's Hospital Oakland, KindVR has used virtual reality in a research study to help patients with sickle cell disease mitigate their pain. The company is also conducting clinical research using biofeedback for patients with chronic discomfort and cancer.

Website: [kindvr.com](http://kindvr.com) | [@kindvr](https://twitter.com/kindvr)

Contact: Simon Robertson ([simon@kindvr.com](mailto:simon@kindvr.com))

### CellScope - UC Berkeley

CellScope is developing new ways to use the camera of mobile phones and tablets to collect images for medical, scientific, and educational purposes. Current devices offer brightfield as well as fluorescence imaging and can achieve sub-micron spatial resolution, depending on the application. The lab develops custom software for its mobile microscopes to coordinate image collection, annotation, data management, web connection, and automated image analysis.

Website: [cellscope.berkeley.edu](http://cellscope.berkeley.edu)

Contact: Mike D'Ambrosio ([mdambrosio@berkeley.edu](mailto:mdambrosio@berkeley.edu))



### SmartDerm

SmartDerm proposes a comprehensive pressure ulcer prevention system consisting of intelligent sensor patches that continuously collect data across multiple modalities such as pressure and oxygenation, from which machine learning algorithms predict the likelihood of ulcer formation. This information is analyzed and presented to nurses to streamline their workflow and enable data-driven intervention efforts. The device was developed under Dr. Hanmin Lee through UCSF's Surgical Innovations Program.

Website: [surgicalinnovations.ucsf.edu/spotlight/highlighted-projects/smartderm.aspx](http://surgicalinnovations.ucsf.edu/spotlight/highlighted-projects/smartderm.aspx)

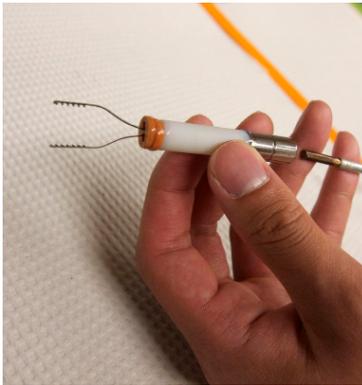
Contact: Sachin Rangarajan ([sachin.rangarajan@ucsf.edu](mailto:sachin.rangarajan@ucsf.edu))

# DEMOS

## Center for Augmented Cognition

UC Berkeley's Center for Augmented Cognition supports faculty and students in their research on new computing paradigms and methodologies of human cognition modeling, human-computer interaction, and human-robot collaboration through augmented and virtual reality technologies. Faculty members include professors in the schools of engineering, architecture, journalism, and electrical engineering and computer sciences.

Website: [augcog.berkeley.edu](http://augcog.berkeley.edu)  
Contact: Allen Yang ([yang@eecs.berkeley.edu](mailto:yang@eecs.berkeley.edu))



## Pediatric Device Consortium

UCSF is home to one of the country's first three Pediatric Device Consortia, a network of FDA-funded centers that assist pediatric innovators in bringing device ideas to market. Dillon Kwiat, the PDC's senior design and development engineer, will demonstrate several novel devices under development in the UCSF PDC, including minimally invasive surgical devices for limb lengthening, chest wall deformities, and sleep apnea.

Website: [pediatricdeviceconsortium.org](http://pediatricdeviceconsortium.org)  
Contact: Dillon Kwiat ([dillon.kwiat@ucsf.edu](mailto:dillon.kwiat@ucsf.edu))

## Elemeno Health

Elemeno Health is a desktop and mobile app that serves as a personal assistant for frontline healthcare teams. People are healthcare's greatest asset. Elemeno Health engages frontline teams, across professions, and drives the consistent delivery of best practices—improving quality, safety, and outcomes. The UCSF startup is led by Professor Arup Roy-Burman, MD, and is backed by Silicon Valley incubator Y Combinator.

Website: [elemenohealth.com](http://elemenohealth.com) | [@elemenohealth](https://twitter.com/@elemenohealth)  
Contact: Arup Roy-Burman ([arup@elemenohealth.com](mailto:arup@elemenohealth.com))



## AFFILIATED PROGRAMS



### UCSF Pediatric Device Consortium

The PDC provides accessible clinical and technical expertise and development assistance to pediatric innovators designing novel medical devices. The program has been funded by the FDA since 2009 and has assisted over 60 pediatric device projects over the years, five of which are now in clinical trials. The PDC's projects have now attracted more than \$21 million in external support. The PDC hosts twice-a-week open meetings at which pediatric device innovators can access comprehensive development assistance from the program's network of physicians, engineers, scientists, designers, and device industry experts.

Website: [pediatricdeviceconsortium.org](http://pediatricdeviceconsortium.org)

Contact: Stacy Kim ([stacy.kim@ucsf.edu](mailto:stacy.kim@ucsf.edu))

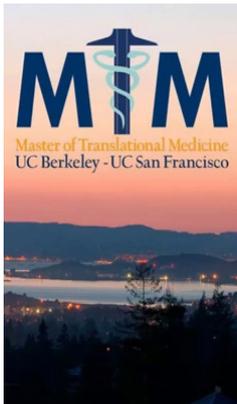


### UCSF Surgical Innovations

Surgical Innovations is an initiative of UCSF's Department of Surgery in partnership with the Department of Bioengineering & Therapeutic Sciences to identify, mentor, and facilitate the translation of novel medical technologies from UCSF faculty into transformative new devices and treatments to improve human health. Resources include support from technical staff, access to facilities and equipment, funding through its Accelerator program, and hands-on interdisciplinary training for surgical residents during their research years.

Website: [surgicalinnovations.ucsf.edu](http://surgicalinnovations.ucsf.edu)

Contact: Elizabeth Gress ([elizabeth.gress@ucsf.edu](mailto:elizabeth.gress@ucsf.edu))



### UC Berkeley-UCSF Master of Translational Medicine Program

The MTM is a new degree blending the engineering, clinical, and entrepreneurial aspects of translating medical innovation into clinical reality. The program spans one year with interdisciplinary courses at both UCSF and UC Berkeley and covers a wide range of translational steps, such as needs assessment, prototype development, IP, reimbursement, and regulatory landscapes. MTM graduates go on to launch careers in medical innovation at start-ups, consulting, research, and clinical practice.

Website: [uctranslationalmedicine.org](http://uctranslationalmedicine.org)

Contact: Moose O'Donnell ([mooseo@berkeley.edu](mailto:mooseo@berkeley.edu))

# SPONSORS



Pediatric Device  
Consortia Grant Program

