

**TO MEMBERS OF THE UC REGENTS SPECIAL COMMITTEE ON INNOVATION
TRANSFER AND ENTREPRENEURSHIP****DISCUSSION ITEM***For Meeting of June 2, 2023***SPEAKER SERIES: UC BERKELEY PROFESSOR ANA CLAUDIA ARIAS****EXECUTIVE SUMMARY**

Dr. Ana Claudia Arias joined UC Berkeley as a professor in the Department of Electrical Engineering and Computer Science in 2011. Prior to joining the Berkeley faculty, she was manager of the Printed Electronic Devices Area and a Member of Research Staff at 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.

BACKGROUND

Professor Arias received her master's and bachelor's degrees in physics from the Federal University of Paraná in Curitiba, Brazil and her Ph.D. in Physics from the University of Cambridge, UK. She was a postdoctoral fellow in the Optoelectronics group at the University of Cambridge, where she helped form the spin-off company [Plastic Logic](#) and led its semiconductor group. Arias left Plastic Logic in 2003 and joined the research team at the Palo Alto Research Center (PARC). At PARC, Arias was responsible for flexible and printed electronics. She worked on the fabrication of wearable sensors, including devices capable of preventing brain injuries in the battlefield by wirelessly monitoring of pressure and acoustic levels.

Arias serves as Faculty Director of the Berkeley Wireless Research Center, where she started to develop sensing systems that track a patient's vital signs and provide instant feedback to healthcare professionals. She created a wearable system for magnetic resonance imaging (MRI) scanning of babies. Conventional MRI systems use hard, bulky metal radio frequency coils to receive the MRI signals, requiring babies to be anaesthetized to obtain clear images. To mitigate this, Arias created a flexible, lightweight radiofrequency coil that could be embedded within a swaddle blanket.

Arias also worked with Cambridge Display Technology to develop lightweight skin-like pulse oximeters to measure blood oxygen levels and a multi-sensor platform capable of [photoplethysmography](#), blood volume changes to detect biomarkers from human sweat.