



SHARP MINDS LECTURE SERIES

The first Monday of every month, seniors 65 and better can enjoy the exhibits, a Heikoff Giant Dome Theater show and educational programming on the quietest day of the month! Join local scientists to learn about a variety of topics as they share their latest research in a friendly and exciting environment. Request lecture tickets at the Ticket Counter. Purchase \$10 lecture tickets at the Ticket Counter. Tickets include an IMAX screening and access to all the exhibits.

May 2, 2022

10:30 a.m. to 11:30 a.m.

Improving Medical Practices by Understanding how our Brains Experience Touch

Life is full of materials that trigger thoughts and emotions; think of the bubbles of champagne on your tongue, the sound of a violin in your ears, the soft feeling of your favorite blanket. We can feel, hear and see these materials because of dynamic processes happening on the nano scale and how our brain processes the sensations. In this talk Dr. Darren Lipomi will share his team's work on the intersection between the science of soft materials and the science of touch. Through this work, scientists are beginning to understand how the sensations of touching different material manifest in our consciousness and how this could help improve surgical robotics, physical therapy, psychotherapy and a host of other medical practices.

Bio:

Dr. Darren Lipomi earned his undergraduate degree in chemistry from Boston University and his Ph.D. from Harvard University. He worked both at Harvard and Stanford and is now faculty in the Department of NanoEngineering, at UC San Diego. He holds four licensed patents. His research has been covered by news outlets, including CNN, Nature, Popular Science, Wired, Physics World, CNET, PCWorld, and Gizmodo. He is the host of IDEAs in STEM Ed and Molecular Podcasting, which combined have 12,000 subscribers in audio and on YouTube.

Theatre Show:

Great Bear Rainforest
at noon

June 6, 2022

10:30 a.m. to 11:30 a.m.

Diagnosing Disease with Light Using Nanomaterials

Today, tests for serious disease can be slow, expensive or imprecise. In many ways, current medical diagnostic technologies lag behind what engineering can provide. Too often, imprecise or slow diagnostic tools mean that patients don't always get the most targeted treatments. In this talk, Dr. Poulikakos shares her effort to develop new diagnostic tools that use nanostructured surfaces, allowing them to produce results more quickly, more accurately and at lower cost.

Bio:

Lisa Poulikakos is an Assistant Professor in Mechanical and Aerospace Engineering at UC San Diego. She is affiliated with the UC San Diego Materials Research Science and Engineering Center (MRSEC) Seed grant program. Prof. Poulikakos' research studies how nanomaterials can interact with light to address societal challenges, including those in global health. She earned her PhD at ETH Zurich, Switzerland and completed her postdoctoral fellowship at Stanford University, before joining the UC San Diego faculty in 2020.

Theatre Show:

A Beautiful Planet
at noon