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8th Annual LLNL/LPC Science and Engineering Seminar Series Kicks off on October 5 at LPC
Theory to Practice: How Science Gets Done

(Livermore, CA) The Lawrence Livermore National Laboratory and Las Positas College are teaming up once again to provide a unique science experience for Tri-Valley residents with their popular seminar series titled "Theory to Practice: How Science Gets Done" in Building 2400, Room 2420 at Las Positas College, 3000 Campus Hill Drive in Livermore.

The new, free seminar series kicks off at 6 p.m. on October 5 with Dr. Erik Mukerjee, biomedical engineer at the LLNL Center for Micro and Nano Technology, with his talk on Microneedles! Dr. Mukerjee will describe research on microfabricated needle systems that can directly interact with human physiology systems to measure important biological markers and electric currents generated during wounding.

Attendees will learn the answers to questions such as: How small a needle do you need to probe the epithelial multilayer and dermis and monitor and manipulate human physiology at the molecular level? What do you get when you cross human physiology with bioengineering? Microneedles! Do they hurt?

Erik V. Mukerjee, Ph.D. is a member of the technical staff in the Engineering Directorate and the Center for Micro and Nano Technology at Lawrence Livermore National Laboratory. Erik received his B.S., M.S., and Ph.D. degrees in biological sciences, electrical and computer engineering, and biomedical engineering, respectively, from the University of California, Davis in 1993, 2001, and 2003. His research areas of interest are monitoring and manipulating of human physiological systems through interfacing with bioMEMS microdevices. His thesis and dissertation work at UC Davis focused on silicon microneedle-base structures for bi-direction transdermal fluid flow and intraepithelial wound potential measurements. During the past few years, Erik has worked on a diverse set of projects consisting of MEMS pressure sensors, MEMS vertical vortex micromixer, microelectrode arrays for epiretinal prosthesis, polymer coated micro-cantilever array for chemical detection, MEMS-based multiplexed polymer coating system for micro-cantilevers, micro-differential scanning calorimetry for explosives detection, gas phase CO2 reclamation, CWA detection, iCHIP and New Generation biometrics and bio-forensics. In addition to his technical work, Erik serves as a member of the DoD Forensics Science and Technology Working Group. He has co-authored conference and journal publications in the areas of engineering and biology.

About Las Positas College
Las Positas College currently enrolls 8,000 students and offers curriculum for students seeking transfer to a four-year college or university, career preparation, or basic skills education. The College provides university transfer classes, retraining classes for those in need of employment or career advancement, a first-time educational opportunity for many adults, enrichment classes for those seeking a broader perspective, and career and technical training for those entering the technical and paraprofessional workforce.
Las Positas College is a learning-centered institution focused on excellence and student success. It is fully committed to supporting Tri-Valley residents in their quest for education and advancement. Las Positas College faculty and staff are distinguished by their energy, creativity, and commitment to making a difference in the lives of the students they serve and the future of the Tri-Valley region.