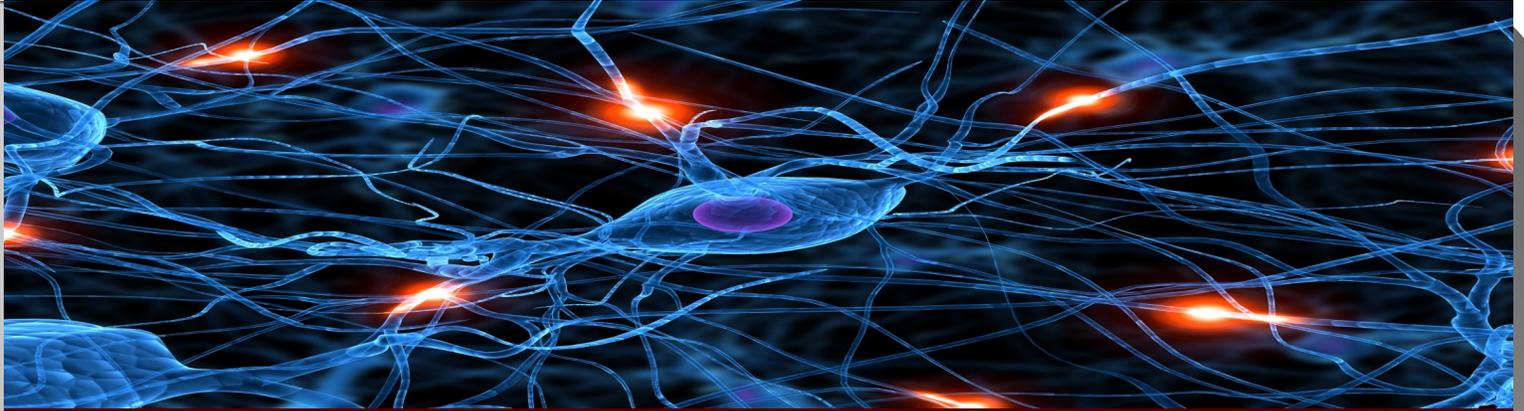


Bioengineering Seminar

Friday, May 4th, 2012

12:30pm-1:30pm, Room 3507 Nguyen Engineering Building



David Lipson Ph.D.

Senior Lecturer and Project Coordinator at Cornell University

Bone Bleeding - Prevention, Proof of Healing, and Electrosurgery Primer

Electrical engineering, Marconi, and Tesla were very early contributors to Biomedical Engineering almost immediately after the invention of the radio, applying RF power to tissue in surgery.

Electrosurgery (ESU) entered clinical surgery with Bovie's first device using tube type RF oscillators. It is well-known that low frequency AC can electrocute, but at 500 kHz, ESU is used to cut tissue and stop bleeding in surgery. Limitations in dry ESU were overcome in a novel saline coupled handpiece, and almost complete prevention of blood loss in soft tissue resulted. Bone bleeding had heretofore been considered unstoppable by ESU.

Saline coupled RF power not only prevented large blood loss in bone, but had no reduction in bone healing. The pre-clinical study used to support the 510k submission by TissueLink Surgical, Inc. to the FDA will be highlighted.

Biography

David Lipson is a Senior Lecturer and Project Coordinator at Cornell University. He joined the Department of Biomedical Engineering at Cornell University in 2004. Dr. Lipson earned a Ph.D. in Biomedical Engineering from Case Western Reserve University, and his BS in Electrical Engineering at Cornell University.

His current interests focus on teaching teams medical product development strategies in their Masters of Engineering Program. These teams work for a wide range of clients, and learn to approach Biomedical Engineering as a system that involves clinical, patient, FDA, and technical issues, that leads to novel solutions for these problems.

Prior to joining Cornell, Dr. Lipson was the Vice President, for Research & Product Development in Biomedical Engineering. He focused on different biomedical areas such as cardiac, orthopedic, spine, and biosensors. Dr. Lipson has delivered products that have generated up to \$300M in fortune 500 and emerging companies and has over 30 US patents. Furthermore, Dr. Lipson worked at NASA, and developed the first Freon refrigerator to be used in space flight.

For any questions, please contact Claudia Borke at cborke@gmu.edu

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