
“New Advances in Biomaterials and Combinations of Biomaterials and Drugs, and their Role in Angioplasty, Stenting and Ophthalmic Devices”**Dr. Len Pinchuk
CEO, Innovia****Friday, August 31, 2012
LECTURE: 9:00 AM—10:00 AM****ENGINEERING CENTER
ROOM EC 2300
10555 WEST FLAGLER STREET
MIAMI, FL 33174**

Abstract: Although stenting in the body to dilate vessels can be traced back to the late 1960's it was really the invention of the robust Nylon 12 angioplasty balloon catheter that ushered in the modern day stent. However, it was found that both angioplasty and stenting result in unacceptable restenosis rates of 40% and 33%, respectively at six months implant duration. The discovery that smooth muscle cell proliferation played a large role in restenosis led to the irradiation of lesions wherein irradiation was soon replaced by the drug eluting stent, which in turn may be replaced by the drug coated balloon. The combination of a medical device and a drug has now become a powerful therapy for the treatment of vascular disease as well as other diseases, such as glaucoma. My talk will tie together some of the chemistries used to develop the angioplasty balloon, inert biomaterials, the drug eluting stent, as well as a new stent being used in the eye to treat glaucoma.

Biography Dr. Leonard Pinchuk is a world renowned expert in the field of biomaterials and medical devices, with approximately 100 U.S. patents in this area. His accomplishments include the invention of the modern-day angioplasty balloon, which has been the world market leader for over two decades, the zig-zag helical stent used on most stent-grafts, the modular stent-graft used to repair abdominal aortic aneurysms, drug-eluting stents, the polycarbonate urethanes and SIBS for implant applications, a novel micro-shunt for the treatment of glaucoma and the next generation intraocular lens material. He began his career at Cordis Corporation in 1983 and in 1987 left Cordis to co-found Corvita Corporation, where they pioneered the field of stent-grafts. After completing a successful IPO on the NASDAQ in 1994, Corvita was purchased by Pfizer, Inc. and then Boston Scientific Corporation where he became the first-named inventor on the TAXUS drug-eluting coronary stent, the largest product launch in the history of medical devices. Dr. Pinchuk currently serves as president and CEO of the Innovia companies and also enjoys an appointment as Distinguished Research Professor of Biomedical Engineering at the University of Miami. Dr. Pinchuk received a B.Sc. in chemistry from McGill University in 1976, a Ph.D. interdisciplinary in Engineering, Chemistry and Medicine from the University of Miami in 1984 and an honorary Doctor of Science degree from McGill University in 2005. He received the Greater Miami Chamber of Commerce Health Care Heroes Award in 2008, and was inducted into AIMBE in 2007 and the National Academy of Engineering in 2012.

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