



The Hebrew University Center
for Nanoscience & Nanotechnology



Nano Seminar

Diamond Bionics

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Abstract:

Diamond, nanodiamond, graphene and other carbon allotropes are emerging as a new class of materials with superior properties for use in bionics. In particular these materials display excellent charge injection and recording properties making them particularly suitable for use in brain machine interfaces. In addition, diamond based materials provide an outstanding, long-lasting hermetic encapsulation for sensitive electronic components implanted into the body.

In this talk, I will tell our story of the development of the diamond bionic eye which takes advantage of these properties, and the challenges that we faced in developing retinal prostheses capable of returning vision to patients suffering from retinitis pigmentosa and macular degeneration. Looking to the future, we envisage carbon allotropes as being the basis of the next generation of brain machine interfaces, which could not only provide unprecedented new insights into brain function, but also allow for the treatment of diseases such as epilepsy, chronic pain, Parkinson's and drug resistant depression.

Gathering & Refreshments at 10:50

Please contact Liron Dover at 6584919 if you are interested in meeting the lecturer.

Sunday, Oct 11th 2015, 11:00 at the Seminar Hall
Los Angeles Building, entrance floor.