



## Nanotechnology and Nanomedicine: Applications for Vision



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An ARVO Education Course originally presented at the ARVO Annual Meeting on April 30, 2005 in Fort Lauderdale, Florida.

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For detailed information and funding opportunities in the NIH Nanomedicine Initiative see:

[www.nihroadmap.nih.gov/nanomedicine/index.asp](http://www.nihroadmap.nih.gov/nanomedicine/index.asp)

For additional information about Nanoscience and Nanotechnology at the NIH see: [www.becon.nih.gov/nano.htm](http://www.becon.nih.gov/nano.htm)

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CD-ROM copies of this course are available upon request from the Division of Extramural Activities, National Eye Institute. Send requests by email to: [Nanomed@nih.gov](mailto:Nanomed@nih.gov)

**Subject line: ARVO Nano CD Request**

Be sure to include your name and mailing address.

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**Introduction to Nanoscale Materials Behavior - Why all the Fuss?**

**Mark A. Ratner, PhD**

Morrison Professor of Chemistry, Department of Chemistry, Northwestern University

*Running time: 35:34*

**Nanoparticles - Chemistry, Structure and Function**

**Karen L. Wooley, PhD**

Professor, Department of Chemistry, Washington University in Saint Louis,

*Running time: 36:37*

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## **Dendritic Polymer Adhesives for Corneal Wound Repair**

**Mark W. Grinstaff, PhD**

Associate Professor of Biomedical Engineering and Chemistry, Metcalf Center for Science and Engineering, Duke University

*Running time: 15:00*

## **What Can Nanotechnology Do for Biology?**

**Milan Mrksich, PhD**

Professor of Chemistry, The University of Chicago

*Running time: 32:2; \*Note: Seven (7) slides have been omitted due to lack of permission.*

## **Nanoscale Modulators of Membrane Receptors: The Multidisciplinary Challenge**

**David Pepperberg**

Professor, Department of Ophthalmology and Visual Sciences, University of Illinois at Chicago *\*Note: No video included*

## **Nanotechnology and Regenerative Medicine**

**Samuel I. Stupp, PhD**

Professor of Materials Science, Chemistry, and Medicine, Director, Institute for BioNanotechnology in Medicine, Northwestern University

*Running time: 36:33 \*Note: Two (2) slides have been omitted due to lack of permission.*

## **Modulation of Cellular Behavior by Nanoscale Topographic Cues**

**Christopher J. Murphy DVM, PhD**

Professor, Department of Surgical Sciences, School of Veterinary Medicine, University of Wisconsin

*Running time: 07:24*

## **The NIH Nanomedicine Vision**

**Paul A. Sieving, MD, PhD**

Director, National Eye Institute

*Running time: 12:06*

## **Questions and Answers**

*Running time: 15:03*