Nanoworld Opens New Lab for Nanomedicine Research

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- By: Michael Schulz
- Page 1, Article

On November 21, Drs. Shanov and Schulz debuted the newest facilities addition to the Nanoworld Lab Group, Room 587 ERC Building. Accompanied by College of Engineering administration, staff and students, the Nanoworld Lab directors opened the Pilot Microfactory for Nanomedicine Devices.

Preceding the grand opening, a complimentary luncheon was held to recognize the contributions of the college support staff, administration, facilities management personnel, and student researchers. Dr. Schulz and Dr. Shanov thanked all in attendance and attributed them to the great success and rapid expansion of the Nanoworld Laboratories.

Following the luncheon, faculty, staff and students toured the lab and learned about the functions of the new instrumentation and equipment within it. The 587 ERC lab contains several state-of-the-art instruments including: micro-manipulators for probing, characterization, manipulation and assembling of nanodevices, (4) a micro balance scale used for density measurements of nanostructured materials, and a 3D printer for additive manufacturing of parts and components. The lab also houses three precision microscopes: a benchtop scanning electron microscope, a high resolution digital microscope, and an atomic force microscope. To optimize image quality, the microscopes are located on a large vibration isolation table. They are also connected to a screen on the lab’s front wall for ease of viewing during tours and classes. The purpose of the new lab is to develop biomedical microdevices using nanoscale raw materials. The research is funded by the National Science Foundation (Grant: CBET-1239779, Program Manager: Dr. Leon Esterowitz).

Also during the tour, Dr. Shanov recognized Engineering Facilities manager Rick Koch and his staff for their help in constructing the lab.

The addition of the 587 ERC Pilot Microfactory for Nanomedicine Devices marks the 7th laboratory in the Nanoworld group.
Nanoworld Lab Group Debuts Newest Facilities Addition
-December 2013
-Page 2, Additional Photographs

Kleindiek micro-manipulators in the 587 ERC lab.

Keyence high resolution digital microscope.
Nanoworld Lab Group Debuts Newest Facilities Addition

- December 2013
- Page 3, Additional Photographs

Precision balance scale that will accurately measure to one ten millionth of a gram.

Hitachi Benchtop Scanning Electron Microscope in the 587 ERC lab.