



CENTER FOR INTEGRATIVE NANOTECHNOLOGY SCIENCES



Staff and Research

Major Developments

Over the past year, research at CINS focused primarily on two areas: biomedicine and thin films. In biomedicine, our scientists worked on nano-based solutions for cancer treatment and diagnostics, as well as rapid, advanced tissue regeneration. Our Department of Defense-funded bone regeneration research entered its second year and is progressing well. Our thin films research focused on three areas: superhydrophobic surfaces, oil-water separation technologies, and photovoltaics (solar cells).

Published Manuscripts

In Fiscal Year (FY) 2017, CINS researchers and students authored or co-authored 13 articles in peer-reviewed journals, including Nature Communications, Scientific Reports, and Precision Oncology.

Patents

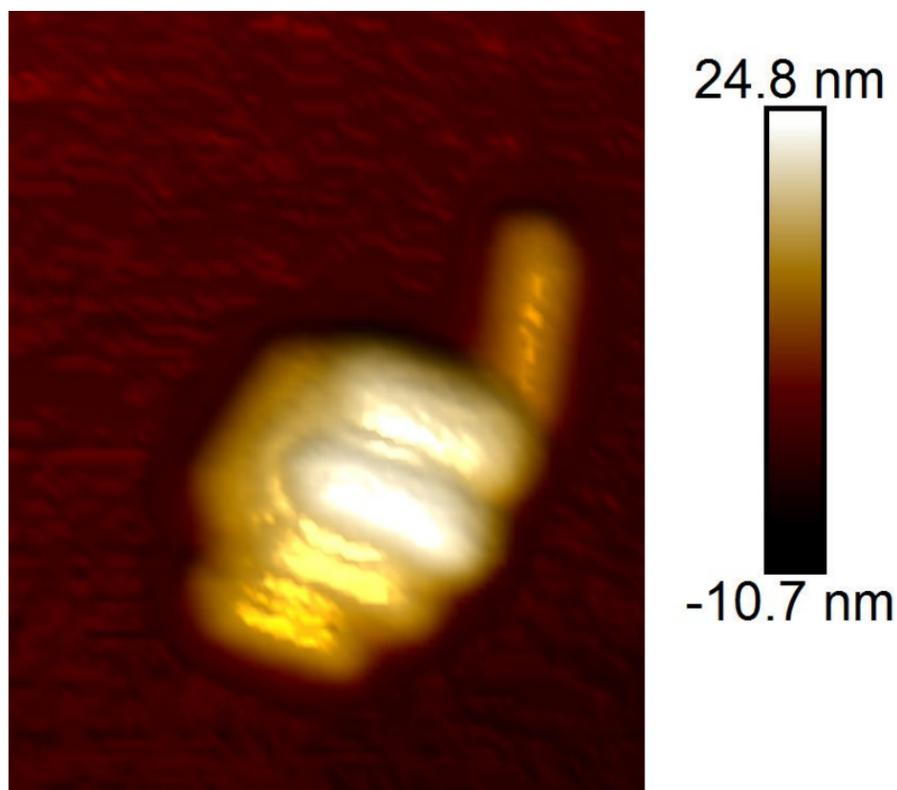
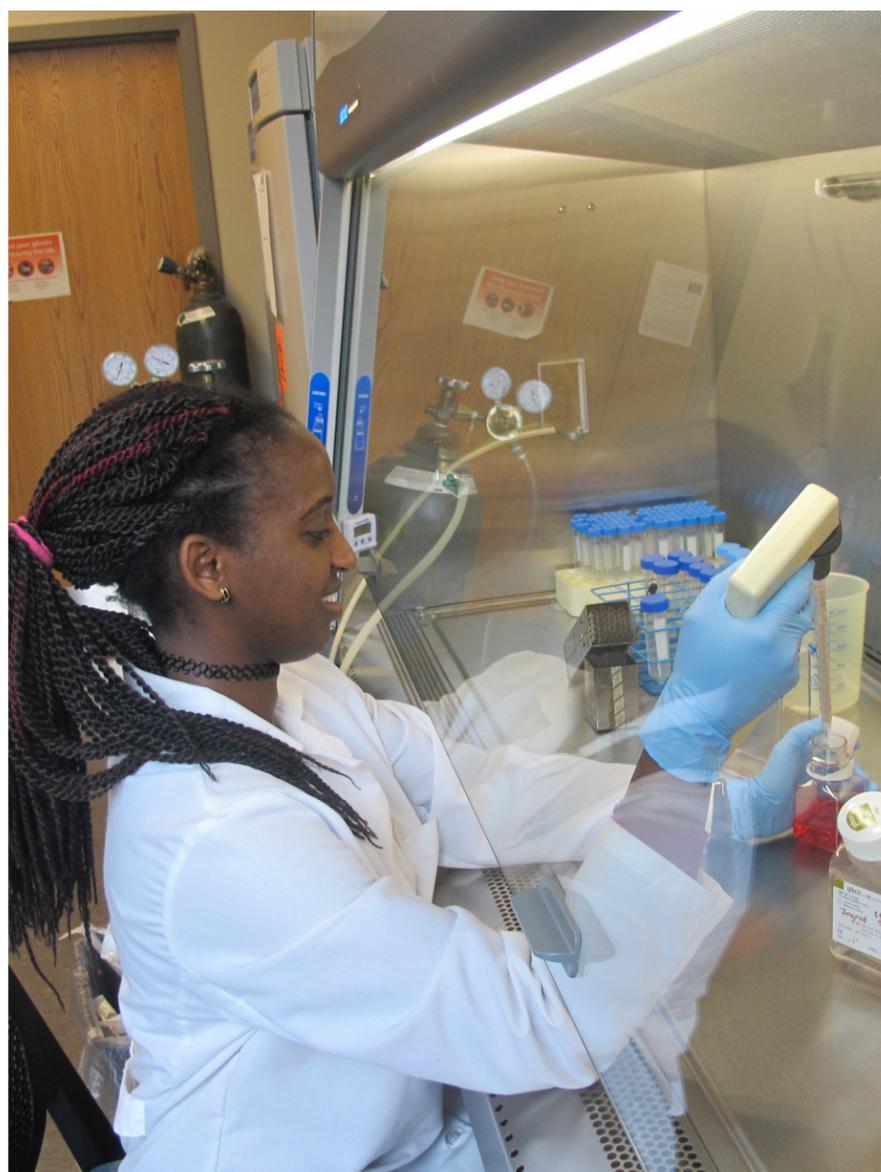
6 patents were granted for CINS-based intellectual property. An additional 8 patent applications, 2 of which were international, were filed.

Submitted Proposals

10 proposals were submitted to federal, private, and state funding agencies in FY17. Over half of these were collaborative, proposing projects in conjunction with the University of Arkansas for Medical Sciences, the University of Tennessee, Knoxville, the Arkansas Research Alliance, and NuShores Biosciences LLC.

Quick Facts

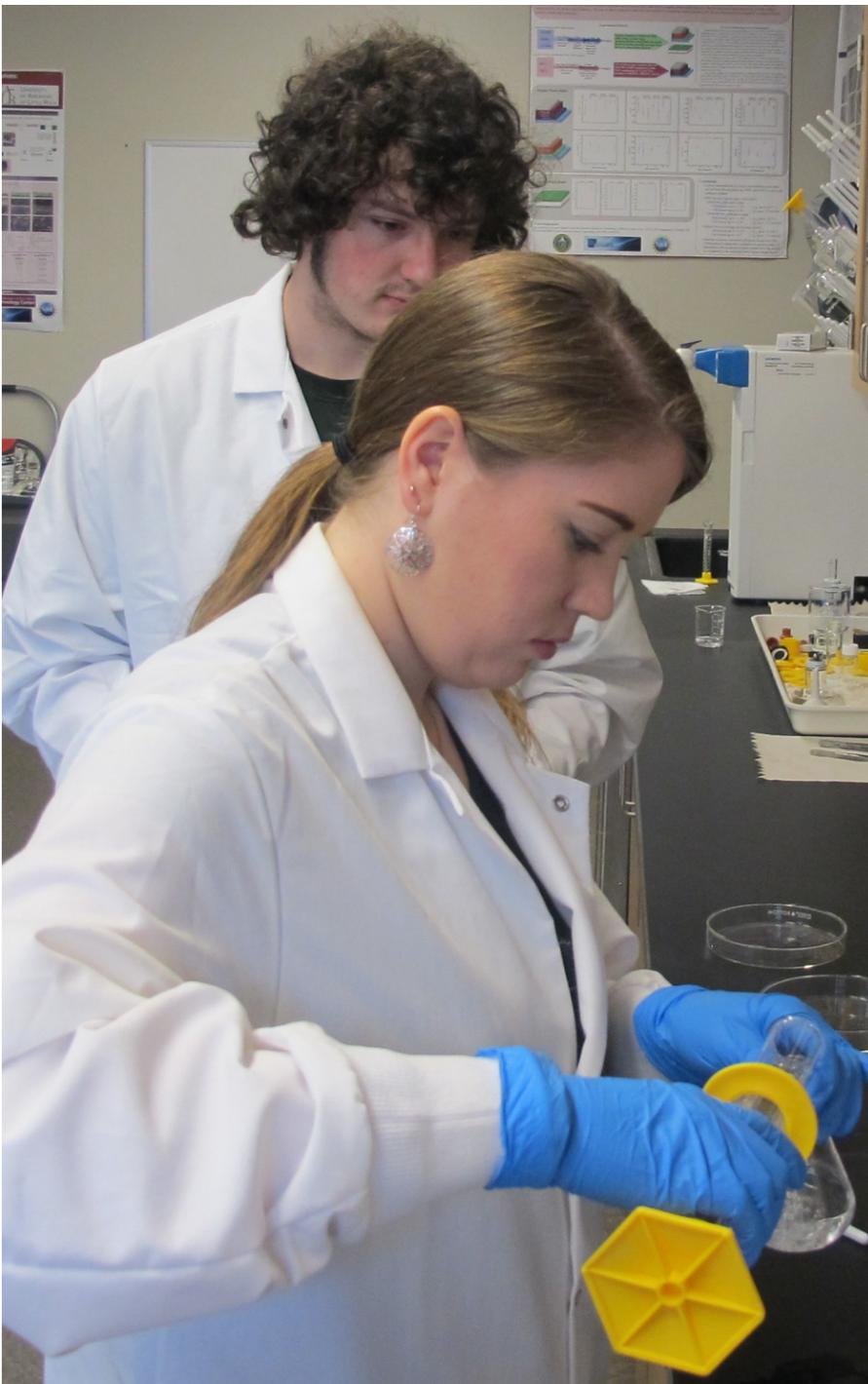
- All CINS research staff members were either authors or coauthors on published journal articles
- A new staff member was hired to manage CINS's proposals and communications
- Over **8,000** hours of CINS instrument use were logged by UA Little Rock students, faculty, and staff



Education

Quick Facts

- 4 students—both undergraduate and graduate—were authors or coauthors on peer-reviewed journal publications
- 2 CINS students were featured in UA Little Rock’s “Research in the Rock” magazine, an annual publication highlighting exemplary projects on campus



Graduate Students

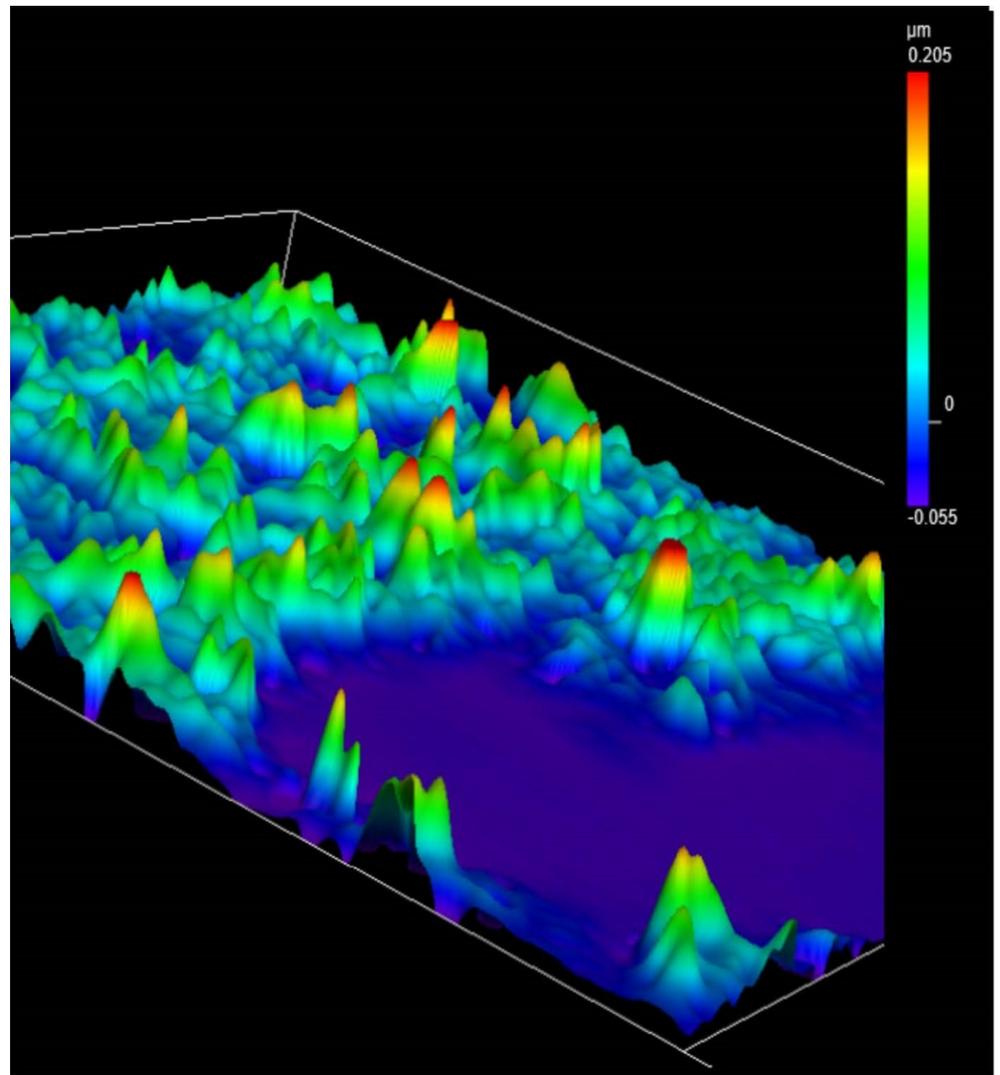
In FY17, 13 master’s and doctoral students conducted research at CINS. Two of these students earned their master’s degrees, with one going on to conduct her doctoral research at CINS and the other continuing his research via a CINS internship.

Undergraduate Students

CINS employed 8 undergraduate research assistants in FY17. One of these students, Jeffrey Jones, graduated in December 2016 and now works as a supply chain inventory manager at L’Oreal USA.

High School Students

Through the Donaghey College of Engineering and Information Technology High School Summer Research Program, as well as through individual CINS mentoring efforts, we mentored and supervised 6 high school students conducting research in our labs.



Outreach

Tours

In FY17, CINS gave tours to over 50 high school and college students. We were also honored to welcome the new UA Little Rock chancellor to campus with a personal tour for both him and his wife.

Visitors and Guests

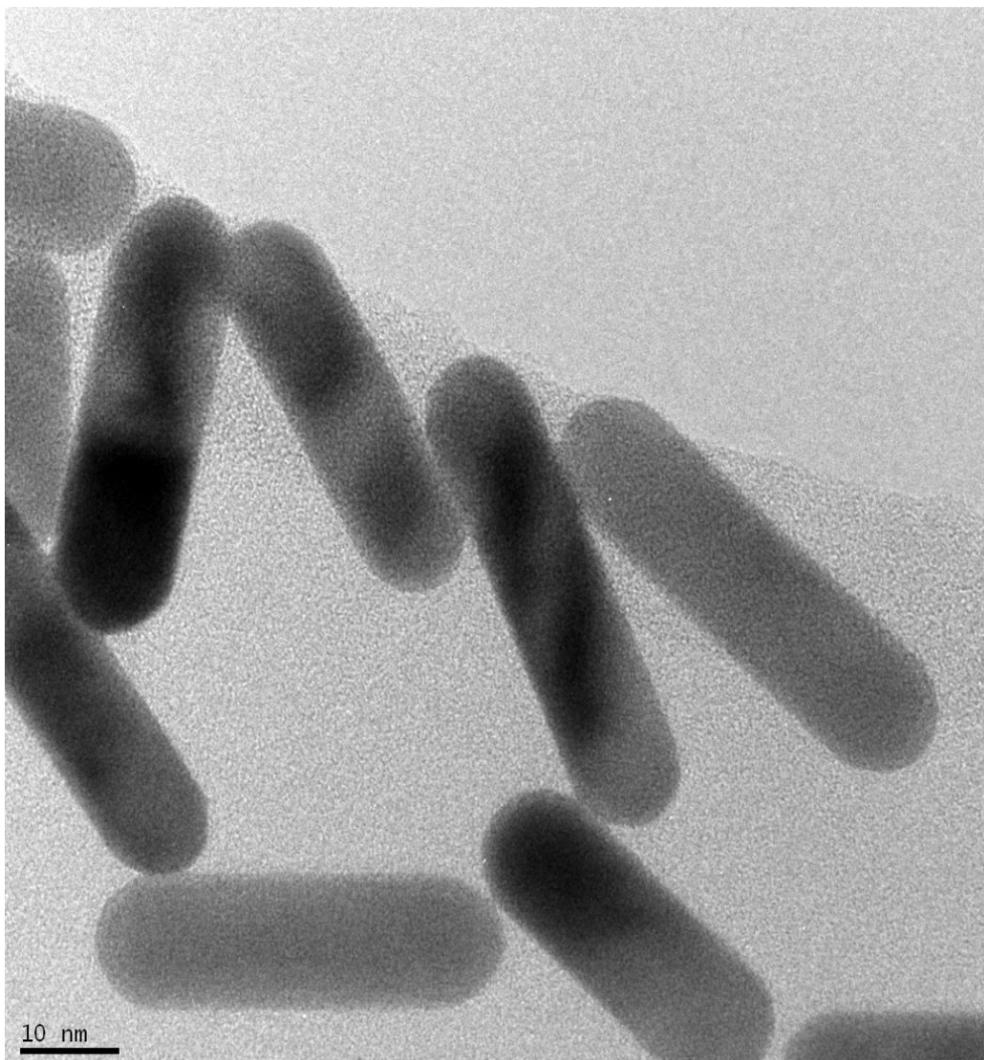
CINS hosted a variety of individuals for tours and meetings, ranging from government officials to the UA Little Rock Foundation Fund Board.

Digital Presence

In the fall of 2016, the Center overhauled its website, updating the content and interface to match UA Little Rock branding standards. Additionally, the Center revamped its Facebook presence.

News Articles

In partnership with the UA Little Rock Office of Communications, we promoted the research and activities of the Center through two online articles. One focused on CINS alumnus Dereck Oshin, and the other highlighted the use of our bone regeneration technology to heal a prize bull.



Quick Facts

- Over 50 high school and college students given tours of the CINS facilities
- Over 50 new followers on Facebook
- Over 1,000 hours of instrument usage by external partners

