

SOUTH DAKOTA MINES

An engineering, science and technology university

Mines News

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Release Date Tuesday, October 24, 2023

South Dakota Mines Opens CNAM-Bio Center Oct. 25



South Dakota Mines will have the grand opening of the CNAM-Bio Center from 1 p.m.-4 p.m. on Wednesday, Oct. 25, 2023.

South Dakota Mines will have the grand opening of the <u>Composite and Nanocomposite Advanced Manufacturing-Biomaterials Center (CNAM-Bio)</u> Bioprocessing Facility at the <u>Composites and Polymer Engineering (CAPE) Laboratory</u> from 1 p.m.-4 p.m. on Wednesday, Oct. 25, 2023. The CAPE Laboratory is at <u>920 E. St. Patrick St. Rapid City, SD, 57701</u>.

CNAM-Bio works with industry and government partners to help solve bioprocessing challenges and create a seamless path from bench-scale to pilot-level production. Their mission involves developing sustainably manufactured bioproducts from renewable feedstocks, including forestry and agriculture residues like corn stover. CNAM-Bio can produce bioproducts such as biodegradable bioplastics and various specialty chemicals for a range of applications, such as biosurfactants, biosolvents and bio-based coatings.

"This would be a way to add value to South Dakota's agricultural and forestry commodities. Once we harvest corn or soybeans the remaining biomass can be made into high-value materials via bioprocessing," says Laurie Anderson, Ph.D., interim vice president of research at SDM.

The new bioprocessing facility will be crucial in allowing CNAM-Bio to evaluate the commercial viability of its bioproduct and bioprocessing innovations before transitioning them to the newly opened POET Bioproducts Center operated by Dakota BioWorx in Brookings, a partnership between SDM, South Dakota State University and private industry, which opened Oct. 11.

CNAM-Bio's new bioprocessing infrastructure will support bioproduction scaling using bioreactors ranging from three to 260 liters. Transitioning from the bench scale to a larger bioreactor is not viable without step-wise scale-up of processes to the intermediate pilot scale provided by the advanced bioprocessing capabilities at the SDM facility, says David Salem, Ph.D., CNAM-Bio director.

"We aim to scale up to a level that allows us to determine the feasibility of large-scale production," Salem says.

"This facility will attract research and development money into South Dakota and use abundant feedstocks from agriculture and forestry for scale up to pilot scales for commercialization," says Anderson.
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About South Dakota Mines

Founded in 1885, South Dakota Mines is one of the nation's leading engineering, science and technology universities. South Dakota Mines offers bachelor's, master's and doctoral degrees and a best-in-class education at an affordable price. The university enrolls 2,493 students with an average class size of 24. The South Dakota Mines placement rate for graduates is 98 percent, with an average starting salary of more than \$70,036. For these reasons South Dakota Mines is ranked among the best engineering schools in the country for return on investment. Find us online at www.sdsmt.edu and on Facebook, Twitter, LinkedIn, Instagram, and Snapchat.

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■ Thursday, Sep. 5, 2024⑤ All Day

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