

CONTACT • Kathleen Hamilton 646.997.3792 / mobile 347.843.9782 kathleen.hamilton@nyu.edu

Note: Images available at http://dam.engineering.nyu.edu/?c=2065&k=84b168b1c2 Immediate Release: Friday, April 27, 2018

NYU TANDON OPENS FIRST CLEANROOM, ADVANCING BROOKLYN'S POSITION AT THE FOREFRONT OF SCIENCE AND TECHNOLOGY

Researchers from Academia and Industry Can Fabricate Materials and Devices to Accelerate Discoveries in Fields from Nanotechnology to Quantum Mechanics

BROOKLYN, New York – The NYU Tandon School of Engineering today will preview Brooklyn's first cleanroom, where scientists and engineers from across greater New York will fabricate advanced materials and devices on the micro- and nano-scale in order to push the boundaries of established scientific principles and future technology. Such fabrication facilities are essential to experiments in nanotechnology, quantum computing, minute biosensors that could revolutionize medicine, ultra-fast electronics, hardware that is secure from hackers, and much more.

<u>Katepalli R. Sreenivasan</u>, NYU Tandon's dean and a physicist, will join Brooklyn Borough President <u>Eric L. Adams</u> and <u>Dormitory Authority of the State of New York</u> (DASNY) President and CEO <u>Dr. Gerrard P. Bushell</u> to don clean suits and reveal the instruments and fabrication equipment in NYU Tandon's NanoFab CleanRoom for a select group of invited guests on Friday, April 27, 2018. The cleanroom, in NYU Tandon's Rogers Hall at 6 MetroTech Center in Downtown Brooklyn, is slated to begin full operations later this spring.

Funded in part with \$1 million from the City of New York Office of the Brooklyn Borough President as well as a \$2.5 million grant awarded by the Higher Education Capital Matching Grants Program administered by DASNY, the 2,300-square-foot facility will provide fabrication equipment and instruments in a nearly dust-free environment for researchers throughout New York University, as well

as other local universities and industry. New York's burgeoning tech-startup community is expected to benefit in particular, through access to instruments that small companies could never afford.

"NYU Tandon is proud to bring this vital research and education facility to the University and our community," Dean Sreenivasan said. "It will open as-yet unimagined opportunities to students, faculty, our Future Labs' entrepreneurs, and innovators throughout Brooklyn and New York. Fabrication labs are becoming essential to discovery at leading science and engineering universities, and our professors are poised to conduct important research here, as well as to educate students about cutting-edge fabrication processes. We have taken a first important step in this direction."

The NYU Tandon NanoLab CleanRoom adds to the network of facilities in the city that are enabling innovative research throughout the city. It was designed from the start to complement cleanrooms at Columbia University and the City University of New York's NanoFabrication Lab, both in Manhattan. NYU teams already conducting research at the Columbia and CUNY cleanrooms are expected to transfer some of their work to the NYU Tandon site, and researchers from those universities and others will be invited to make use of the NanoFab CleanRoom.

The first teams scheduled to use the NanoFab CleanRoom from NYU will include researchers in biomedical, chemical, electrical and mechanical engineering; medicine; and physics. The lab contains state-of-the-art microelectronics processing equipment and atomic force microscopy for a wide range of research activities including spintronics, nanoelectronics, biosensors, lab-on-a-chip technology, energy devices such as solar cells and batteries, biotechnology, microelectronics, and telecommunications.

As a single example of its potential, researchers will be able to build and test prototypes as they develop biomedical sensors that are small, flexible, able to transmit data at high speeds, and use little power – suitable for advancing understanding of the brain, perhaps, or to diagnose from afar. Other researchers will be testing devices to search for cancer at the cellular and molecular levels.

Rated as a Class 1000 cleanroom, the lab will maintain an environment of fewer than 1,000 particles larger than 0.5 microns per million – compared to 100 times that level of dust and pollutants in the normal environment.

Eric L. Adams, president of the Borough of Brooklyn, said: "Opening Brooklyn's first cleanroom is a clear win for our borough's growing reputation as a leader in technological innovation. NYU Tandon's NanoFab CleanRoom, which I was proud to support through my capital budget, will facilitate the research and developments of tomorrow's solutions to today's challenges, empowering our city's scientific community with state-of-the-art facilities in the heart of Downtown Brooklyn."

Dr. Gerrard P. Bushell, president and CEO of DASNY, said: "The Higher Education Capital Matching Grant Program leverages private investment with public dollars to stimulate the economy and keep New York competitive. DASNY is pleased to administer this program and support important projects such as NYU's ultra-clean room. New York is a leader in medical and scientific innovation. By helping advance projects such as this, we will empower scientists and open the door to new potential new cures and treatments – bringing hope to millions."

For more information, visit http://microsites.engineering.nyu.edu/nanofabrication.

About the New York University Tandon School of Engineering

The NYU Tandon School of Engineering dates to 1854, the founding date for both the New York University School of Civil Engineering and Architecture and the Brooklyn Collegiate and Polytechnic Institute (widely known as Brooklyn Poly). A January 2014 merger created a comprehensive school of education and research in engineering and applied sciences, rooted in a tradition of invention and entrepreneurship and dedicated to furthering technology in service to society. In addition to its main location in Brooklyn, NYU Tandon collaborates with other schools within NYU, one of the country's foremost private research universities, and is closely connected to engineering programs at NYU Abu Dhabi and NYU Shanghai. It operates Future Labs focused on start-up businesses in downtown Manhattan and Brooklyn and an award-winning online graduate program. For more information, visit http://engineering.nyu.edu.

About Dormitory Authority of the State of New York (DASNY)

DASNY provides construction, financing, and allied services that help provide the foundation for the healthy, educated, and resilient communities that make New York thrive.

About The Higher Education Capital (HECap) Matching Grants Program

The HECap Program is a \$150 million capital matching program for independent colleges and universities. Under this program, New York State will contribute a dollar of support for every three dollars spent by Independent Sector campuses. The HECap Program is governed by the HECap Board. DASNY administers the program for the Board.

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