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Singapore advances next-gen nanotech solutions at NTI-NTU Corporate Laboratory

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To develop advanced coatings for dental prosthetics

NTU Singapore and Nanofilm Technologies International (NTI Nanofilm) have officially opened the NTI-NTU Corporate Laboratory with a showcase of next-generation nanotechnology solutions for industries spanning semiconductors, biomedical applications, and clean energy.

The S$66 million Corporate Lab on the NTU Singapore campus is now fully operational with NTI Nanofilm's industrial-scale coating systems and NTU's advanced research platforms, enabling research, pilot-scale testing, and talent development to take place together with industry partners.

As part of the Corporate Lab's push to translate advanced coating technologies into real-world applications, NTU and NTI Nanofilm researchers are partnering the National Dental Centre Singapore (NDCS) to develop advanced coatings for dental prosthetics, with the aim of improving patient outcomes.

The advanced coatings are engineered to increase wear resistance, improve tissue integration, and provide effective antimicrobial protection. For the dentists, the greater durability of the implants can support more efficient treatment workflows. For patients, it could mean shorter recovery times, reduced risk of infections, better healing, and stronger long-term outcomes.

The NTI-NTU Corporate Lab was launched in November 2023. Today, it houses more than 60 researchers and PhD candidates working on 10 industry-focused projects across four research thrusts: coating equipment technologies, advanced materials, nanofabrication, and hydrogen energy.

The NTI-NTU Corporate Lab serves as a translational platform, bridging the gap between lab research and real-world manufacturing by validating and scaling advanced coating technologies for industry use.