Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals and is active in over 100 countries. With its knowledge, innovation prowess and integrated technology platforms, Evonik is equipped to address the issues of tomorrow. Evonik Health Care as one of the 22 business lines in the company holds a highly accomplished global footprint. With 50 years of in-depth experience and 13 formulation development labs located worldwide, including US, China, Germany and Thailand, Evonik Health Care has a global team of professionals dedicated to delivering solutions to their customers in the pharma, medical device and nutraceutical industries. By offering an extensive wealth of know-how, together with the state-of-the-art equipment, Evonik Health Care is fully capable of providing its best technical support for their customers as well as enhancing your research.

Evonik has identified Tissue Engineering as a future growth field with Bioprinting of 3D functional living tissue showing huge potential in area of regenerative medicine and test systems. However, current Bioprinting approaches have many technical challenges in terms of high-resolution cell deposition, controlled cell distribution and vascularization. The objective of this project is to develop a novel Bio-ink with superior properties based on Evonik products.

This project will be under an Evonik contract but under the supervision of and at the premises of the Singapore Centre for 3D Printing at NTU.

PhD Student 3D Bioprinting at NTU

Responsibilities

- Literature review in Bioprinting
- Evaluation and review of existing Evonik materials
- Formulation of bio ink and testing for specific characteristics
- Development and optimization of bioink and cell printing parameters
- Verify survival and functionality of printed cells and tissues

Requirements

- Bachelor degree in related disciplines with outstanding results (at least 2nd Upper Honours)
- High motivation for spearheading research and development
- Ability to structure and manage cross-disciplinary projects
- Aptness for hands-on work at mechanical testing devices
- Excellent skills in teamwork and communication

If interested, please kindly send in your resume to Suan (suan.ng@ntu.edu.sg).