Preparing Drug Discovery Experts for Convergence in the Pharmaceutical Industry

Student Testimonials

"I have countless opportunities to use my knowledge, skills and passion. I am proud to have become a student who can bridge the gap between learning and having fun."

Nidhi BIRLA

"I chose Dundee as I wanted a university with world-class life sciences courses, and gained exposure to practical, hands-on applications."

Farah MOHD ZIN

"The degree course at Dundee is fantastic for young scientists seeking a practical, laboratory-based approach. The lectures are friendly and really help."  

Brian LEUNG

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Preparing Drug Discovery Experts

The Faculty of Science (FoS), National University of Singapore (NUS) and the School of Life Sciences, University of Dundee (UoD) are collaborating to offer a four-year Joint Degree Programme (JDP) combining NUS’ B.Sc. (Hons) in Life Sciences and UoD’s B.Sc. (Hons) in Biological Sciences/Biomedical Sciences. The programme, which leverages both universities’ strengths, will equip students with drug discovery and design expertise to be at the forefront of their field, effectively bridging the upstream and downstream aspects of the pharmaceutical industry. Hence, they will be leading practitioners contributing across the continuum of the pharmaceutical business. The first batch of students will be admitted in Academic Year 2018/2019.

Programme Highlights

First of its kind joint Honours programme: NUS students will complete a research project at UoD in drug discovery and design, spanning various disciplines like biology, chemistry and computing. The UoD is one of the world’s top 200 universities worldwide with internationally recognised expertise in STEM (science, technology, engineering and mathematical) research. UoD students will complete a project, covering NUS’ Life Sciences specialisations in human physiology and ageing, neurobiology, and/or genetic medicine.

Fighting diseases: UoD collaborates with the world’s leading pharmaceutical and biotechnology companies in the fight against diseases such as cancer, diabetes, rheumatoid arthritis, etc. It also develops drugs to treat neglected world tropical diseases such as Malaria and Chagas. Students gain hands-on training in drug optimisation and design in the context of these diseases, thereby equipping the skills to pursue higher degrees in these fields.

Global learning experience: The programme has an integral study abroad component, which broadens students’ intellectual and global perspectives. Students will stay at the home university for five regular semesters. They will then go to the partner university at the end of Semester 5 for their last three regular semesters. Upon completion of the programme, graduates will receive a jointly validated B.Sc. (Hons) degree.

Career Opportunities

Since the mid-1990s, Singapore has focused on pharmaceutical manufacturing as a key economic pillar. Employment in this sector has more than tripled in 15 years. The government will continue investing in new manufacturing technologies and capabilities that enable companies to introduce new products and therapeutic modalities. Similarly, biotechnology and pharmaceuticals are strong industries in Scotland, particularly in and around Dundee, with these sectors making up around 26% of the economy.

As business specialties across the value chain in the pharmaceutical industry - such as manufacturers, biotechnology companies, research organisations and distributors - continue to converge, the skills acquired from the JDP will open up many diverse and exciting career opportunities for graduates.

Ms Lim Chuan Poh
Chairman
Agency for Science, Technology and Research [A*STAR]

“The key lies in the growing base of talent, spanning the spectrum of research, innovation and enterprise... and enriching the drug-development biotech ecosystem. The extent of their success will define the next phase of Singapore’s drug-innovation ecosystem, for greater health and wealth for all.”

Career Opportunities

Drug development pharmacologist
Drug discovery scientist
Educator
Manufacturing biotechnologist
Medical science manager
Medical writer
Molecular analytics scientist
Pharmaceutical scientist
Regulatory expert
Researcher

Potential Employers

Drug regulatory authorities
Government agencies
Pharmaceutical companies [e.g. drug manufacturing; biotechnology companies]
Research institutes
Universities