3.1 Degrees Offered

Duke-NUS Medical School offers the following programmes:

1. MD Programme

The Duke-NUS MD programme is distinctively designed to prepare physician leaders in medical research, education, and patient care. This programme spans 4 years, and graduates are awarded the degree of Doctor of Medicine (MD) jointly by Duke University and NUS.

For more information on our MD programme, please click [here](#).

2. MD-PhD Programme

Duke-NUS also offers a combined MD-PhD programme that is unique to Singapore. This option is most appropriate for students who are committed to intensive research-oriented careers, combining biomedical research with the practice of clinical medicine. The duration of the MD-PhD programme varies, but is approximately 7 years. MD-PhD students start their PhD component after completing the 2nd year of the MD programme. Upon completion of PhD, students will complete the final (4th) year of the MD programme.

For more information on our MD-PhD programme, please click [here](#).

3. PhD Programme in Integrated Biology and Medicine (IBM)

The Duke-NUS PhD programme in Integrated Biology and Medicine provides training in translational bioscience, covering a broad spectrum of disciplines including cell and molecular biology, biochemistry, physiology, and health policy. The main research areas that are offered include cancer stem cells, neuroscience, cardiovascular and metabolic disorders and infectious disease. The goal of this programme is to train PhD scientists across multiple disciplines with the skills and ambitions of translating basic scientific discoveries into useful therapies for patients. The education and training of the students is supported by award-winning research faculty. Students in the IBM programme will be awarded a joint PhD degree from Duke University and the National University of Singapore.

For more information on our PhD programme in Integrated Biology and Medicine (IBM), please click [here](#).

4. PhD Programme in Quantitative Biology and Medicine (QBM)
Biostatistics and bioinformatics are increasingly important areas for advancement of biomedical research. There is [high demand for trained professionals](#) in these areas, locally and internationally.

Biostatistics and health data science is responsible for experimental design, data analysis, and evidence synthesis and interpretation for answering questions in translational, clinical, epidemiological and health services research. Recent years have seen major changes in the medical landscape, such as the needs for rapid responses to infectious diseases, personalised medicine, and the availability and connectivity of big data. They demand innovative approaches to statistical problem solving. Some examples include adaptive clinical trial designs, dynamic treatment regimes, and high-dimensional data analysis methods.

Computational biology is an integration of data analytics, statistics, machine learning, modelling, software engineering, and computer science to answer questions in basic and translational biomedical research. The explosion of demand for bioinformatics in the last five years has been driven partly by huge decreases in the cost of next generation DNA sequencing, which is 10,000 times cheaper than it was in 2006\(^1\). As a result, next-generation sequencing is now a foundational technology for much of biological research. The rapid development of many other high throughput technologies is also driving demand for bioinformatics experts.

Duke-NUS will launch its inaugural PhD programme in Quantitative Biology and Medicine (QBM) in August 2017. The programme distinguishes itself from others by focusing on issues in modern biomedical research and preparing researchers to take their skills to advance medicine.

Students will complete their training in Duke-NUS’ [Center for Quantitative Medicine](#) (Biostatistics and Health Data Science) and [Center for Computational Biology](#) (Computational Biology).

The degree, which will take on average 4 to 5 years to complete, culminates with the development of a written thesis and a successful oral dissertation defense.

For more information on our PhD programme in Quantitative Biology and Medicine (QBM), please click [here](#).

5. PhD Programme in Clinical Sciences (CS)

The aim of the PhD Programme in Clinical Sciences (PhD CS) is to educate and train medical doctors and other health science professionals to perform clinical and translational research. The proposed programme will focus on the interface between clinical, biological and social research methods by bringing together experts in quantitative sciences (biostatistics, epidemiology, and bioinformatics), biological basic sciences (genomics, immunomics, metabolomics), ethics, clinical therapeutics, health services and systems research.
For more information on our PhD programme in Clinical Sciences (CS), please click here.