Established in 2005, Duke-NUS Graduate Medical School is Singapore’s first US-style graduate-entry medical school. It has pioneered a medical training programme based on Duke University School of Medicine’s curriculum, with an annual enrolment of over 60 medical students. A number of medical graduates will go on to develop careers as clinicians with strong research interests. Together with their PhD counterparts, Duke-NUS graduates will play increasingly critical roles in transforming medicine and improving patient care.

The School has received over S$280 million in research funding from local and international sources. Its faculty has garnered many competitive awards and grants, and published over 1,400 peer-reviewed journal articles.

A major collaboration in Academic Medicine between Duke-NUS and Singapore Health Services (SingHealth) – Singapore’s largest healthcare group – augments the exchange of ideas and research discoveries among scientists and clinicians to bring about positive outcomes which benefit patients.

Duke-NUS offers programmes that lead to a Doctor of Medicine (MD) degree, an MD/PhD degree or a PhD degree in Integrated Biology and Medicine, to groom the next generation of doctors, clinician-scientists, and scientists.

Medical students enter with at least a baccalaureate degree in any field except medicine, and are conferred a joint Doctor of Medicine degree from Duke University and the National University of Singapore (NUS) when they graduate.

Our education model is based on that at Duke University’s renowned School of Medicine. Our integrated approach combines academic learning, clinical experience, and clinical and translational sciences research. Key distinguishing features:

- Students cover basic sciences in their first year
- They care for patients one year earlier than their peers at other American medical schools
- Students devote one year to independent scholarship and research

Our Students

Successful student applicants typically have entrance Medical College Admissions Test (MCAT) scores of over 30 and GPAs over 3.5.

As at 30 Sept 2014, Duke-NUS has enrolled 448 students of diverse academic and cultural backgrounds, hailing from 24 countries and 88 different universities. Some of these include:

- National University of Singapore
- Nanyang Technological University
- Johns Hopkins University
- Duke University
- University of Toronto

Student Performance

Our indicators of student performance are based both on US licensing and local examinations. These indicators have shown our students to be performing well.

Our students have also excelled in the area of medical research, with more than 150 student publications across the four classes that have since graduated.
Duke-NUS has established five world-class Signature Research Programmes (SRPs) that are aimed at making a substantive impact on Singapore’s biomedical sciences scene, with each extending from fundamental or discovery science into the translational/clinical realm. The areas have been chosen due to their relevance to major health burdens of Singapore and the region. We believe there is a competitive advantage for conducting such research in Singapore, with the programmes capitalising on the strengths of Duke University.

Duke-NUS adopts a multi-faceted, and multi-disciplinary approach, leveraging on state-of-the-art technology platforms that are opening up new horizons for research. This has allowed our researchers to ask more refined questions and explore theories that can potentially impact the way diseases are identified and treated. A number of significant research discoveries have been produced on these platforms.

Four of our SRPs are laboratory-based:
- Cancer and Stem Cell Biology (CSCB)
- Cardiovascular and Metabolic Disorders (CVMD)
- Emerging Infectious Diseases (EID)
- Neuroscience and Behavioural Disorders (NBD)

A fifth, Health Services and Systems Research (HSSR), is more orientated towards public health policy with an emphasis on health economics, decisions sciences and disease prevalence/health burden modelling.

Under the SingHealth Academic Medicine partnership, Duke-NUS also undertakes clinical research at affiliated hospitals, clinics and specific research sites. It also supports clinical research by providing senior disease experts and senior quantitative experts as part of mentoring teams. The affiliated Singapore Clinical Research Institute also provides full scientific collaboration and guidance in protocol design, execution analysis and publication for investigators.

In addition, there is a four-year service obligation for local students and five-year service obligation for international students.

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**Our Research Collaborations**

Faculty members actively collaborate with academic and healthcare institutions, government organizations, and pharmaceutical and biotechnology companies, both locally and internationally.

We have major research collaborations with:
- Duke University
- SingHealth Group
- Ministry of Health
- A*STAR
- Singapore Dengue Consortium with DSO National Laboratories
- ImaginAb, Inc.
- Visterra, Inc.
- GlaxoSmithKline
Our Centres

The Centre for Quantitative Medicine (CQM) is an academic home made up of quantitative scientists in the medical field. It serves as a point of contact for biomedical researchers from Duke-NUS partners requiring quantitative expertise.

The Centre for Computational Biology (CCB) provides expertise in computational biology and bioinformatics. CCB investigators are especially adept at integrated analyses for –omics studies and systems biology approaches.

The Centre for Cognitive Neuroscience (CCN) is one of Duke-NUS' pioneer labs, that has evolved into an entity, comprised of several faculties engaged in multidisciplinary research into the neural underpinnings of human behaviour.

Defining the Future of Medicine

Duke-NUS and SingHealth have established a partnership in Academic Medicine (AM). This harnesses the collective strengths of Duke-NUS’ medical education and research capabilities, and SingHealth’s clinical expertise. Through this, clinical care, education and research are integrated, leading to improved healthcare and patient outcomes.

Duke-NUS and SingHealth faculty work in tandem with students and staff to nurture a vibrant environment that encourages new discoveries in healthcare. The key to the partnership’s success is the integration of cutting-edge clinical and translational research and patient care. This collaborative model builds on similar successful concepts applied in academic medical centres across the world.

Three key features of the SingHealth Duke-NUS Academic Medicine Centre model are:

**Academic Clinical Programmes**

Central to AM, the Academic Clinical Programme (ACP) is an integrated framework designed to support our vision towards AM. ACPs are created for each clinical specialty, harnessing the expertise of each discipline across Duke-NUS and SingHealth for greater synergy in clinical care, education and research. There are currently 11 ACPs established, with more in the pipeline.

11 Academic Clinical Programmes (ACPs)

- Cardiovascular
- Medicine
- Neuroscience
- Obstetrics & Gynaecology
- Oncology
- Ophthalmology & Visual Sciences
- Oral Health
- Paediatrics
- Pathology
- Radiological Sciences
- Surgery

The Lien Centre for Palliative Care (LCPC) is the first of its kind in Asia. Its goal is to build a strong pool of palliative healthcare professionals to enhance service delivery through innovative training programmes and research.

The Centre for Technology & Development (CTeD) facilitates translation of research arising from the activities of Duke-NUS, and its partners into commercial application. Its overarching goal is to establish sustainable, long-term relationships with external private and public partners to provide long-term value to Singapore’s biomedical research ecosystem.

The Centre of Regulatory Excellence (CoRE) aims to support the fast growing biomedical industry in the Asia-Pacific region, through the promotion of regulatory leadership, policy innovation in science and scientific excellence.

Joint Institutes

Two institutes have been set up to support AM. The Academic Medicine Education Institute (AM•EI) and Academic Medicine Research Institute (AMRI) support faculty development at the Duke-NUS SingHealth academic healthcare cluster, and support the development and career pathways of Clinician Scientists and Clinician Educators.

**Academic Medicine Education Institute (AM•EI)**

The Academic Medicine Education Institute (AM•EI) is a joint institute between Duke-NUS and SingHealth. It aims to raise standards in healthcare education by creating a community of educators, who promotes academia and pedagogical development. AM•EI equips educators with best teaching practices and recognises the academic advancement of clinician educators by providing resources and opportunities.

**Academic Medicine Research Institute (AMRI)**

The Academic Medicine Research Institute (AMRI) is a collaboration between Duke-NUS and SingHealth. It serves as a nexus for the development of research-oriented careers. AMRI provides a full spectrum of support, including mentoring, helping both budding and established researchers transform their ideas into research proposals, and fostering collaborations among clinician investigators and clinician scientists in the ACPs.
DUKE-NUS AT A GLANCE

PUBLISHED OVER
1,400
PAPERS IN
INTERNATIONAL
PEER-REVIEWED
JOURNALS

$>280
MILLION
IN RESEARCH
FUNDING LOCALY
AND OVERSEAS

>1,000
FULL-TIME AND ADJUNCT FACULTY IN RESEARCH AND EDUCATION

4
NATIONAL RESEARCH
FOUNDATION FELLOWSHIPS

51
PATENTS FILED

8
LICENCES AWARDED

>80
RESEARCH COLLABORATIONS
AND PARTNERSHIPS

8
COMPANIES

3
BIOTECH

STARTED UP
BY DUKE-NUS
INVESTIGATORS

10
SINGAPORE
TRANSLATIONAL
RESEARCH (STAR)
INVESTIGATOR
AWARDS*

21
CLINICIAN
SCIENTIST
AWARDS*

15
TRANSITION
AWARDS*

*as at 31 Dec 2014

Celebrating 10 years of transforming medicine
and improving patients' lives

*All information accurate as at December 2014