

THE UNDERGRADUATE POSTGRADUATE DEGREE

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Originating in 2007, the Intercalated Masters in Biomedical Sciences has been offered to Trinity College Dublin medical students who have completed three years of the medical curriculum¹. This relatively new initiative hinges on the fact that each of the three Masters tracks – Molecular Medicine, Neuroscience and Bioengineering, have existed as well-structured and established stand alone postgraduate degrees; long before the inception of the Intercalated Program. With the Intercalated Masters programme, Trinity medical students are offered the opportunity to complete a fully recognized postgraduate degree as an undergraduate.

The 'Undergraduate Postgraduate Degree' is designed to allow the early acquisition of fundamental skills that are of quintessential importance in the world of research-oriented and evidence-based medicine; where there exists an ever-increasing need for investment in academic credentials as capital.

The Intercalated Masters from a student's perspective

A healthy number of students embark on Medical Overseas Voluntary Electives (MOVE), a program for volunteer medical electives occurring in the summer of third year. MOVE electives are a wonderful part of the global experience that Trinity encourages her students to pursue, and it is an opportunity many do not want to miss out on. However, a MOVE elective commitment is usually synonymous with limiting the time an individual has to under-

take 'academic' electives to just the summer of fourth year. This might initially seem trivial, but electives are a great chance to experience the working environment of a country where one might consider working in the future or, for international students, a chance to spend time in the clinical environment at home. The Intercalated Masters program begins in late September and ends in July, which creates two additional summer months (one before the start, and one after the end of the Masters program) for electives, travel, or a simple respite.

The first two terms (September-December, January-March) of the Molecular Medicine masters involves: 1.) lectures that are examined through written tests at the end of each term, 2.) assignments that include journal club presentations on topical research articles as well as literature reviews, and 3.) a compulsory Research Skills module. Students are also privi-

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leged with access to the world's first academic course on the use of High Content Screening Analysis (HCSA) machines, which are cutting edge high-throughput automated imaging devices. These machines, purchased in 2008, are a first among European academic institutions. The course schedule finds the student in lectures on Wednesdays and Thursdays every week, with the exception of one week of daily laboratory practical sessions in each term. As a result, there is plenty of time for the completion of course assignments as well as partaking in activities outside of the Intercalated Masters curriculum.

The third term (April-July) sees the completion of a research project that culminates in a dissertation in biomedical science. Students can choose to complete their project at the Institute of Molecular Medicine (IMM) at St James's Hospital, or apply for an exchange program to Scotland, England, Spain, Germany, France, Sweden, or the Netherlands under the Eurolife initiative. An interesting research project is arguably the most important contributor to the personal appreciation and enjoyment of the Intercalated Masters program, and there is a healthy abundance of topics and academic institutions to select from.

It is important to note that although the Intercalated MSc. was initially conceived as a two-year part-time course, it has since been revised to a one-year full-time degree. The switch to a one-year full-time course permits medical students to complete the MSc. within a single predestined 'year out' and re-enter the 4th year of medical school, fully able to focus on the demands of their clinical education.

Advancing careers

Medical research, article-writing and presenting skills that are attained during the Intercalated MSc. do not go unnoticed, or unappreciated, when the practicalities of job and specialist program applications are considered. In the UK system for assessing an applicant's competitiveness, individuals are scored

out of a total of 100 marks, of which, up to 10% can be secured from 'additional degrees' and 'other educational achievements'. The official foundation applicant's handbook of 2011 states that fewer than 50% of medical students score points in these sections². Thus, a Masters degree enables an applicant to garner additional points compared to a primary medical certification alone. Similar considerations of higher education degrees are taken into account when applying for postgraduate specialization posts, as early as Senior House Officer (SHO) level in Ireland³.

Across the Atlantic, North American medical schools exclusively enroll students on a postgraduate basis. Thus, all medical school graduates from Northern American schools have basic undergraduate degrees, which entails additional educational wisdom superimposed on a primary medical degree. Having an additional MSc. qualification will no doubt aid in making an applicant more marketable; although it must also be said that the job application process anywhere worldwide will inevitably involve many other factors and variables.

The Intercalated MSc. and the Trinity College School of Medicine

The last few years have seen the Trinity College School of Medicine make numerous changes to its curriculum, aiming to improve the overall education of her medical students. The first intake of students into the medical school's 5-year program, five years ago, has produced the current batch of outstanding medical interns, providing justification that the reduction of a year's curriculum has in no way compromised the quality of doctors that Trinity produces. The original intention for this change was to evolve the medical course to bear greater resemblance to other medical curricula in the UK and Europe¹. Considering the additional year spent in completing the Intercalated MSc., it would then take the total years spent in college to six, alike what it used to be a not-too-distant time ago. Thus, for the

same level of time commitment that past centuries of classes have invested, Trinity's Intercolated MSc. students will now be equipped with an additional masters degree as they enter the workforce.

Trinity College currently assumes a chairing role in the Eurolife Network of European Universities that was founded in 2006. The Eurolife initiative includes the famed Karolinska Institutet, the Swedish university whose committee appoints the laureates for the annual Nobel Prize in Physiology or Medicine; and top universities from a number of other European countries, namely: University of Edinburgh (Scotland), University of Leeds (England), Universitat de Barcelona (Spain), University Medicine Goettingen (Germany), Leiden University Medical Centre (the Netherlands) and the University of Strasbourg (France). The Eurolife initiative has a 'mission of advancing research and education in the life sciences through strategic partnership and collaboration'⁴. Large EU-funded research projects have been, and are currently being, completed by the Eurolife initiative, illustrating how prudent cooperation may increase the competitiveness of research. The Eurolife Joint Programme in Translational and Experimental Medicine (JPTEM) allows for exchange of postgraduates between participating institutions⁵. Trinity's Intercolated MSc. students have the opportunity to perform their research project at any of the partnered institutions, enriching themselves and their experience with solid foundations and skills to enable them to become future pioneers in the field of medical research. The two-pronged combina-

tion of nurturing medical graduates' appreciation of the evidence-based world of medicine, along with enhancing the impact of published research from within, will both allow the college's reputation to burgeon, and continue to attract the best students worldwide.

A world-class education system that attracts and produces talented individuals will not function without necessary infrastructure. Trinity is the leading recipient of financial investment nationally⁶, and the college has historically channeled these funds into the strategic acquisition of technology. This year will mark the completion of the new Biosciences Development on Pearse Street, one of the largest developments Trinity has seen to date. The director of the Trinity Foundation, Nick Sparrow, partly attributes the multidisciplinary nature of teaching, education and research in Trinity to the 'tight' and close-knit campus in the city centre⁶. The new Biosciences Development aims to continue this tradition of facilitating the continuous flow of information between various departments by keeping academics from many disciplines working in close proximity.

It is apt that the formative years of this exciting new programme have come at a time when the Trinity College School of Medicine celebrates her tercentenary anniversary. The Intercolated MSc. will play a substantial role as Trinity seeks to further enhance her excellent international recognition and cement her status as one of the top medical schools internationally. Three hundred years and counting, this is just the beginning.

References

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