

TRINITY COLLEGE DUBLIN



Provost's report to Council on the Review of the School of Medicine and the Disciplines of Physiotherapy, Radiation Therapy and Occupational Therapy

June 2013

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1. OVERVIEW OF THE SCHOOL OF MEDICINE

Aims and Objectives of the School

The TCD School of Medicine was established in 1711 and is the largest school in the Faculty of Health Sciences. It operates on multiple sites, both within the College and adjacent, in addition to several major clinical campuses, delivering multi-disciplinary education across all levels of health care and performing world-class research. It has over 1000 staff (employed/affiliated) within 19 Disciplines/Academic Units, each led by an academic Head of Discipline with a support structure. The School has approximately 1400 undergraduate students and 500 registered postgraduate students, with a huge range of formal linkages to key College and External Centres/Institutes. The Head of School is a member of the Executive Officers Group (EOG) of the University.

The core objective of the School of Medicine is to produce caring medical and allied health professional graduates who will contribute to innovation and excellence in their specialty, maintain a capacity for lifelong learning, and exemplify the empathic skills required to address the problems they face in their practice and in their engagement with the broader community. The School's capacity for high quality medical education and research was significantly enhanced by the establishment in 2011 of its academic medical centre, Trinity Health Ireland (THI), comprising the School of Medicine and its major clinical partners Tallaght Hospital and St. James's Hospital. This new initiative maximises the School's capacity for delivering clinical care, providing excellence in medical education and training, delivering high-quality biomedical research, and contributing to economic and social development in an integrated way.

Programmes to which the School provides teaching:

Undergraduate:

The School offers the following undergraduate degree courses:

- Medicine M.B., BAO, B.Ch. (Medical Education programme accredited by Medical Council in 2011)
- B.Sc. in Physiotherapy (in association with Singapore Institute of Technology)
- B.Sc. in Occupational Therapy (in association with Singapore Institute of Technology)
- B.Sc. in Radiation Therapy
- B.Sc. in Human Health and Disease
- B.Sc. in Human Nutrition and Dietetics

Postgraduate:

The School offers over 20 taught M.Sc./Diploma programmes. Those associated with the Disciplines of Physiotherapy, Radiation Therapy & Occupational Therapy are:

- M.Sc. in Cardiovascular Rehabilitation and Prevention
- M.Sc. in Respiratory Physiotherapy
- M.Sc. in Advanced Radiotherapy Practice
- M.Sc. in Occupational Therapy

Research:

In line with the School's Strategic Plan, the following research fields have been developing as the areas of particular emphasis within the School of Medicine:

Immunology and Infection, Molecular Medicine, Neuroscience, Cancer, Population Health & Genetics

A key role in the implementation of the Medical School research strategy is played by the School's research institutes including the Institute of Molecular Medicine (IMM), the Trinity Biomedical Sciences Institute (TBSI), Trinity College Institute of Neuroscience (TCIN), Wellcome Trust /HRB Clinical Research Facility (CRF) and Centre for Adaptive Nanostructures and Nanodevices (CRANN), along with the key research hubs located at the campuses of St. James' Hospital (SJH), Tallaght Hospital, and The Coombe Women and Infants University Hospital (CWIUH).

Within the Discipline of Physiotherapy, much of the postgraduate research to date has been performed in the areas of gerontology, paediatrics, cardiology, respiratory medicine and rheumatology. The research interests and expertise of staff in the Discipline of Radiation Therapy range across the areas of molecular oncology and radiobiology, radiation therapy in practice and health service management. Within the area of Occupational Therapy, research interests include Occupational Therapy with Children, Adolescents and Older Adults; Occupational Therapy in Mental Health; Occupational Therapy in Rheumatology & Orthopaedics; Occupation and Occupational Performance; Disability Studies / Issues and Quality of Life and Partnership Models in Service Delivery.

Summary Statistical Profile of the School for the Academic Year 2011/12¹

	Full-time Staff FTE	Undergraduate FTE	Postgraduate FTE	School Staff: Student Ratio	Faculty Staff: Student Ratio
Medicine	131	1249	423	13	14
Physiotherapy	11	135	14	14	14
Radiation Therapy	8	83	.25	10	14
Occupational Therapy	10	145	11	16	14

Figures from Senior Lecturer's Annual Report approved by Council at its meeting on 15th February 2012

Accommodation and Facilities (Physical Resources)

The School of Medicine is based in the Trinity Biomedical Sciences Institute (TBSI), a purpose built research facility which contains sufficient seminar rooms and lecture theatres for the School's current needs and a state-of-the-art Physiology teaching laboratory used for undergraduates in Medicine, Physiology and Human Health and Disease. Both the St James' Hospital and Tallaght Trinity Health Sciences centres have fully staffed and resourced clinical skills laboratory facilities, adequate seminar rooms both within the teaching centres and on the wards and two large lecture theatres each. On both sites there is sharing of facilities between the Medical School and the hospital and/or any associated research institutes to maximise space usage.

¹ The staff FTEs include all Professors, Associate Professors, Senior Lecturers and Lecturers funded from the core HEA grant, or from self-financing courses, and all part-time and occasional staff and demonstrators, converted to an FTE, who are funded from core grant or from self-financing courses.

2. OVERVIEW OF THE REVIEW PROCESS

2.1 Review of Therapies

On the 2nd & 3rd April 2012, parallel reviews of the three Therapy Disciplines were conducted. The internal facilitator for all three reviews was Mr Gerry Whyte, School of Law, Trinity College Dublin. The Review Teams were as follows:

Physiotherapy was reviewed by Prof. Ian MacDonald, University of Nottingham Medical School, UK and Prof. Rik Gosselink, Katholieke Universiteit Leuven, Belgium. The External Reviewers' report was received on the 26th May 2012 and a response from the Head of Discipline for Physiotherapy was received on the 31st August 2012;

Radiation Therapy was reviewed by Prof. dr. Jan Willem Leer, Radboud University, The Netherlands and Prof. Søren M. Bentzen, University of Wisconsin Medical School, USA. The External Reviewers' report was received on the 31st May 2012 and a response from the Head of Discipline for Radiation Therapy was received on the 21st September 2012;

Occupational Therapy was reviewed by Prof. Charlotte Royeen, St. Louis University, USA and Dr. Dalia Sachs, University of Haifa, Israel. The External Reviewers' report was received on the 22nd June 2012 and a response from the Head of Discipline for Occupational Therapy was received on the 31st August 2012.

2.2 Review of the School of Medicine

A review of the School of Medicine was conducted from the 5th – 8th February 2013 by Prof. Michael Sheppard, Provost & Vice-Principal, University of Birmingham; UK, Prof. Brendan Gerard Loftus, Paediatrics, National University of Ireland Galway (NUIG); Prof. Chris Day, Provost of Medical Sciences, Newcastle University, UK; Prof. Ferdinand Breedveld, Professor of Rheumatology, Leiden University Medical School, The Netherlands and Prof. Michael J. Klag, Dean of the Bloomberg School of Public Health, John Hopkins University, USA.

The internal facilitator was Prof June Nunn, Trinity College Dublin.

The Review reports and corresponding Head of Discipline responses for the three Therapy Reviews were made available to the School of Medicine Review Team as part of their self-assessment material but the Review Teams for the Therapy reviews did not meet or correspond with the School of Medicine Review team and *vice versa*.

The Reviewers' report for Medicine was received on the 8th March 2013, the response from the Head of School was received on the 24th April 2013 and the response from the Faculty Dean was received on the 3rd May 2013.

3. REVIEWERS' REPORTS & HEAD OF DISCIPLINE RESPONSES FOR THE THERAPY REVIEWS

3.1 PHYSIOTHERAPY

3.1.1 REVIEWERS' REPORT

a) Research and Scholarly Activity

(i) The Discipline members have a wide range of research interests and associated outputs. This is of value in supporting the need to provide final year research projects to approximately 40 students, but it is not likely to lead to high quality research outputs in all of these areas. Some of the research areas have clear research plans, whereas others seem less ambitious. The relatively small number of members of staff is not sufficient to support critical research mass in such a broad research base, and you would not expect such breadth on the basis of comparisons with similar departments internationally.

(ii) There have been a total of 36 full papers in refereed journals in the past 5 years. Some of these were in high quality international journals (eg Stroke) whilst others are in local journals which have a less substantial academic standing. This is a marked improvement on the position before 2001, but still needs to improve further before the full potential is realised and the Discipline can be regarded as competitive with similar provisions in other countries.

The amount of current research activity and the number of good quality recent theses we saw should enable the improvement in research output to be sustained. There were 12 book chapters published in the past 5 years and numerous conference presentations.

It is difficult to judge how many similar types of output will be produced in the next 2 years. We certainly expect more conference presentations given the number of PGR students, and it is likely that the number of book chapters will be similar, proportionately.

(iii) The discipline was quite successful in the past 5 years in obtaining external research funding. However, these grants were obtained by a small number of individuals (which is not uncommon) and thus the Discipline is potentially vulnerable if these individuals are less successful in the next few years. As one of the most successful grant holders is changing the direction of her research somewhat, it may be a short while before she can achieve her previous level of grant success. It is certainly clear that all research active staff need to be encouraged to seek external grant support, and collaborating with colleagues in the School of Medicine to produce multidisciplinary grant submissions would be a good way of improving the chances of success.

(iv) There are currently 12 Postgraduate Research (PGR) students in the Discipline. 9 postgraduate research degrees were awarded in the past 5 years and 3 are presently under review. The completion times of those awarded were good given the combination of full-time and part-time students. The research output of the PGR students was good, and represented the better quality research outputs from the Discipline overall. The overall supervision/support provided to the students seemed to be good. We interviewed 9 of the present 12 students and they were happy with the training and supervision they were receiving.

Funding for PGR students appeared to come mainly from College support, although some of them were funded on external project or scholarship grants. While such mainly internal funding has enabled a major increase in PGR student numbers, the financial situation is such that it is going to be important to try to obtain external funding if these numbers are to be sustained or increased.

(v) From our meeting with the students it is clear that they had a good working relationship with the members of staff in the Discipline. It was not clear whether there was a more formal structure for obtaining input and feedback from the PGR students within the Discipline, or whether this was done at a School level. Certainly experience from one of our Institutions, where we have a Young Researchers Committee for PGR students and Postdoctoral researchers, is that this gives them an opportunity to provide feedback and have input to the School Management.

(vi) Overall the balance of the better quality published research and most of the PGR student supervision is tilted towards a small number of the total academic staff. Whilst all staff appear to contribute to research project teaching of undergraduates, they do not all contribute to good research outputs or PGR supervision. As the Discipline develops it would be worthwhile increasing the critical mass in a smaller number of research areas, to increase the number and quality of the research outputs and the number of PGR students.

(vii) The small number of research active staff is such that one would not expect a large amount of external activity in learned bodies/government committees, or book editorship. Three members of staff have important learned society roles, four have edited books and one has been a member of government committees in the past 5 years.

(b) Teaching and Learning

(i) The content of the programme is up to date and well focused in the relevant areas of ill health conditions for physiotherapists. The number of students is on average 40/year and saturates the capacity. Students are satisfied with the content and the clinical staff at the clinical placements do not experience shortcomings in the content of the students basic education at the Discipline prior to their clinical attachments. Facilities at the campus (rooms

for theoretical and practical courses, equipment, offices for staff, meeting rooms) are very good.

The subjects in the programme are taught by appropriate academic staff and related to their field of expertise and research. Evidence based practice is included in the curriculum relatively late (starting in the 3rd year) as a formal subject. In our view a University teaching programme in this discipline should include in the science based aspects, elements of evidence-based practice starting in the 1st year. The staff teaching load is high (staff members reported on average 60% of the time is spent in teaching, although not all of this is devoted to the Physiotherapy course) and restricts the amount of time available to the staff to pursue research activity. In addition, senior staff members have a demanding administrative load (e.g. head of discipline, coordinator of PG program of the School of Medicine) that limits their involvement in research significantly. Academic staff from other Disciplines of the School of Medicine or other Faculties deal with basic sciences and clinical medicine topics in the curriculum. The reviewers had no meeting with teaching staff from the basic sciences or the biomedical sciences (it was mentioned that this is part of the review of the School of Medicine in 2013) and we could not judge on the collaboration with the Discipline of Physiotherapy academic staff. From the discussion with the staff of the Discipline and the students there did not appear to be any major difficulties. Students reported no shortcomings in the alignment of the curriculum, but the teaching staff have no formal evaluation of the courses or the teachers.

A variety of teaching methods were described in the self-evaluation report and were presented and reported during the review days. Course aims, content and material are well described and up to date. Students and staff reported no complaints with study load. However no measure of the actual study load (in hours spent on the topic) related to the study points (ECTS) scheduled is available to allow an objective evaluation of the study load. The students reported that the planning of the teaching hours is oftentimes at very (too) short notice and complained that printed Power Point slides were not available in advance and sometimes not at all. Learning resources in the library, electronic platforms and on site practical facilities are sufficient and readily available for the students.

The supervision and evaluation of clinical placements is very well organised with clinical tutors and clinicians. The organisation for clinical placements is specifically well developed in the hospital settings. Over the last years more internships have become available in primary care setting, but this is still probably too small with regard to future professional requirements. Although more time consuming, the teaching staff member responsible for the placements (the clinical placement coordinator) is achieving good quality internships in primary care. Students from the 2nd year felt that they needed more preparation for their clinical placements. Since not all course material can be covered at this time point in their education, expectations at the clinical placements should be adapted to this limitation and discussed with clinical staff and tutors.

The staff-student liaison in the Discipline is adequate at an informal level. The students felt supported in their education by the teaching staff. Specifically the support of the tutors and clinicians during the internships at the various clinical and outpatient facilities is very well appreciated by the students and was also experienced by the reviewers. The supervision and support for students on postgraduate taught programmes is adequate and teaching staff are well qualified in the areas of the programs.

The teaching staff and the Self-assessment report mention that arrangements are made annually for curriculum review and revision. The students, however, reported that no formal way is provided for them to have input into programme development. The voice of the students in the feedback on the program is not sufficiently described or formalised. In addition, there seems to be no formal voice of the PT clinicians to have a direct input into the curriculum review. We acknowledge that the current structures expect should input to occur from the PT clinicians via the practice tutors based at the clinical sites. However, direct contact with the clinicians and feedback from them could be considered.

The students reported that no formal college system for the evaluation of teaching staff in the Discipline is available. Teaching staff reported that individual feedback from the students is requested and this feedback is considered. Adaptations in the teaching are made accordingly, but this is not demonstrated to students, completing the loop.

Students do have opportunities for study abroad (Erasmus exchange) and specific arrangements are developed with several Schools in European countries for relevant 'outside' experience.

Limited funding is available for students for postgraduate taught programmes.

(ii) In relation to other Disciplines of international standing in this academic discipline, the student exam results and completion rates at undergraduate and postgraduate (Respiratory and Cardiac Rehabilitation) level are good. The level of the postgraduate master programmes is up to the standards of other European programs. The quality of the research projects should enable more scientific output. More alignment with the research projects (see part Research and Scholarly activity) is necessary to achieve more published research output.

The qualifications of the students of the bachelor and master program are good, but the economic situation limits entry into the profession in Ireland. Several students went abroad and were successful in obtaining jobs in other European countries, USA, Canada and Australia illustrating the good quality of their education in the Discipline of Physiotherapy.

(c) Other findings/comments

We were a little surprised that there is no formal policy in the School/College of requiring dual supervision of PGR students. Both of our Universities require two supervisors for every student, which provides for maintained supervision when one of them is absent and also enables a broader experience of views to be had by the student. Given that one of our recommendations is for an increase in the number of multidisciplinary research projects, and PGR theses, such dual supervision from the contributing disciplines will become essential and it seems appropriate that each supervisor and department gets full credit for this activity. We were also surprised that there was not an awareness by the PGR students about formal requirements for regular, documented supervisory meetings to discuss progress and plan the next stages. We understand that such a requirement exists, i.e. the postgraduate Calendar of regulations (Calendar Part II) documents the requirement for supervisors to meet with their students at least once a month.

The other area we were surprised about was the apparent absence of a formal system for the annual review of Academic staff performance. We have subsequently learnt that there is a mandatory Performance Development Management System, but there are clearly some problems regarding its implementation, at least as far as one member of staff in the discipline is concerned.

One final comment is the need to ensure that members of academic staff moving into more senior administrative roles (eg head of department/discipline) are given appropriate training in such managerial roles in advance whenever possible. Relevant administrative support and relief from some teaching responsibilities are critical if such senior management is to be successful without compromising the research activities of the senior staff members.

(d) Overall view and recommendations

(i) In the light of what is happening in other universities, comment on the Discipline's self-assessment and view of the future, and developments since the last Discipline review; The reviewers met with the senior academics in the department to discuss future research strategy because the self-assessment documentation presented the existing research activity of the staff and indicated its fit with the School of Medicine's strategic plan, rather than indicating the strategic research plans of the Discipline. It was clear that there are two main areas of research activity within the Discipline, management of chronic disease and professional issues and practice, and that these should form the focus of the strategic research plans going forward.

It was clear that the review in 2001 identified some serious deficiencies within Physiotherapy. The present senior leadership in the Discipline are to be congratulated in having achieved a

marked improvement in relation to both research and teaching since then, and especially in the past 4-5 years. They have managed to increase PGR numbers substantially and are now beginning to produce some good quality publications and attract external funding. Both of these developments still have some way to go, and the research active staff will need to be given time and support to enable this to happen.

One potential area of vulnerability is in relation to technical core support to ensure the equipment used in research is adequately maintained. At present most of the maintenance and calibration is done by the PGR students, and there is a clear threat in relation to continuity. The School of Medicine and / or Faculty of Health Sciences need to consider developing capacity to provide adequate technical support across its component units.

(ii) With regard to research, we endorse the strategic direction described in **(d)** (i). We also recommend that the Discipline continues to strengthen research relationships with other cognate disciplines such as Physiology, Oncology/Surgery. The Discipline should also strengthen ties with the School of Business regarding Health Policy and Management. We firmly believe that Trinity College has major opportunities in multidisciplinary, clinical translational research which would be enhanced by a close liaison between physiotherapy and some of the medical/surgical sections of the School of Medicine.

(iii) With regard to teaching and learning, annual meetings of all teaching staff (from the Discipline and also from basic sciences and biomedical sciences) discussing and formalizing the alignment of (related parts of) the curriculum is advised. The reviewers strongly advise to organize the evaluation of teaching staff at the level of the college and to provide a transparent system of feedback to the students. The Discipline should further support and develop the evolution to more clinical placements/internships in primary care. The reviewers advise the discipline to measure the study load (hours spent on the topic) related to the study points (ECTS) scheduled. The timetable for the teaching programme should be published well in advance. We acknowledge that this is not always possible, but the feedback from the students was that failure to publish the timetable well in advance was the norm rather than the exception.

3.1.2 RESPONSE FROM THE HEAD OF PHYSIOTHERAPY

The report of the reviewers is welcomed and will be very helpful in informing the strategic plan for research in the Discipline. Research will concentrate on the two main research themes identified (exercise management of chronic disease and professional issues). The need to increase critical mass in these research areas as identified by the reviewers would have a considerable impact on the amount of PGR supervision, but will be difficult without key academic appointments. Due to the limited number of staff (four staff) supervising postgraduate students, it is difficult to increase the number of PGR students without an increase in supervision capacity. The suggestion that research active staff need support is welcomed and must be considered in the financially constrained environment within which the Discipline operates.

Senior staff in the Discipline found the discussions with the reviewers, with respect to improving research output, very beneficial. The necessity to link with cognate Disciplines for building research and success in competitive grant applications is acknowledged and there are close links with other Disciplines in the School such as Physiology, Clinical Medicine, Surgery and with other College Schools such as the Business School.

Specific comments

- There is postgraduate representation on the School of Medicine Postgraduate committee (comment end of page one of report).
- Undergraduate: The curriculum emphasises Evidence Based Practice throughout the four years of the programme even though the module specifically focused on EVP does not start until the third year.
- In terms of teaching load; the four staff involved in PGR supervision do have heavy teaching loads and at particular times of the academic year they may have timetabled commitments to the undergraduate Physiotherapy degree, the undergraduate Human Health and Disease degree in conjunction with teaching on the postgraduate MSc in Respiratory Physiotherapy, MSc in Cardiac Rehabilitation and Prevention and the MSc in Sports and Exercise Medicine. However this is only for limited periods during the year and is not consistently an average of 60% of time so the comment on page 2 section (i) of the report relating to 60% teaching commitment is inaccurate.
- The issue of a small number of staff supervising is a concern and it must be noted that the same four staff are also involved in the new one year programme with SIT. It is difficult to see any real increase in postgraduate research in the next few years as these staff are working to maximum capacity. Furthermore one of the four staff is Head of Discipline and the other is director of Postgraduate Teaching and Learning in the School of Medicine. A discussion as to how the research capacity could be increased would be welcome.

- Feedback loop; with the timing of clinical placements it has been very difficult for student representatives to attend the curriculum meetings, however with a change to the clinical placement schedule next academic year there will be one week in each semester where all students will be in TCD (week 6) and curriculum meetings will be scheduled at that time. In addition, a formal meeting will be held at the end of each academic year with the Head of Discipline, Practice Education Co-ordinator and at least one other member of academic staff for discussions on all modules.
- There have been issues with timetables being issued late but it is difficult to finalise when depending on other departments (Chemistry, Physics, Anatomy and Physiology). There is a need for technical support particularly with the increase in equipment that has been purchased for the exercise and movement analysis laboratories. Sharing technical support with other similar laboratories e.g. Human Physiology, Bio-engineering or Human Performance in Anatomy would be an option that could be considered. In terms of curriculum review, all of the clinical tutors are involved and it is expected that they convey concerns/ideas from the clinical teams they work with.

There is an issue with senior staff having considerable administrative commitments and would benefit from post docs to support ongoing work and build on developments made in research capacity. This is of particular importance with additional teaching commitments associated with the programme in Singapore Institute of Technology. Two post doctoral positions have been approved (one for nine months and one for two years).

3.2 RADIATION THERAPY

3.2.1 REVIEWERS' REPORT

The reviewers were requested to comment on the quality and standards of the Discipline of Radiation Therapy (DRT) at Trinity College Dublin (TCD) with respect to (i) Existing Provisions and (ii) Strategic Direction.

The review is based on a site visit conducted on 2nd-3rd April 2012 as well as written material received by mail from the DRT/TCD, in particular the Self-Assessment Report prepared by DRT and the TCD Strategic Plan 2009-2014. The reviewers had a telephone conference prior to the site visit to discuss points springing from the written material. The site visit comprised interviews with the current head Mary Coffey (MC) and the incoming head Michelle Leech (ML), an interview with Laure Marignol, group discussions with other faculty members, small-group discussions with JS students, SF students, SS students and MD students, as well as a formal PowerPoint presentation by ML on plans for a phased introduction of a restructuring of the teaching of principles and practice of cancer care.

In addition, we met with the Vice-Provost/Chief Academic Officer (Prof. Linda Hogan), Dean of Faculty (Prof. Mary McCarron), Academic Secretary (Ms. Patricia Callaghan), and the Interim Deputy Head, School of Medicine (Prof. Joe Barry) to discuss the overall aim and procedures of the review.

The site visit was exemplarily organized, the written documentation was well prepared and helpful in the level of detail, we had unrestricted access to interview faculty and students and were instantly provided with supplementary information whenever requested by us.

The Reviewers' report is largely structured using the headings suggested in the template provided by TCD.

1. EXISTING PROVISIONS

(a) Research and Scholarly Activity

DRT is the only program educating radiation therapists in Ireland. It is remarkable also internationally by providing an honours B.Sc. degree in science fully integrated with clinical placements and skills training.

Distribution of research interests, plans and output across DRT faculty

Research interests among DRT faculty can roughly be summarized under four headings:

- i) Cancer and radiation biology (Laure Marignol). Dr. Marignol, in collaboration with Profs. Hollywood (radiation oncology) and Lynch (urology), conducts research on prostate cancer, with a specific emphasis on the tumor microenvironment (hypoxia), and the development of novel imaging methods, such as diffusion weighted magnetic resonance imaging. This research theme builds on and extends Dr. Marignol's postgraduate research work. This is a reasonably well defined research focus that should be actively pursued in the coming years. Although the questions addressed in the on-going projects do not have a strong radiation therapy component, prostate cancer is a major indication for radiation therapy and the general focus on this disease is logical and is to be encouraged.
- ii) RT related research. A major activity with considerable DRT involvement is ROSIS (Radiation Oncology Safety Information System), a patient safety database established in 2001 under the auspices of the European Society of Therapeutic Radiology and Oncology (ESTRO). ROSIS has successfully established an international voluntary incident and near incident reporting system, a supporting website and an annual teaching course on Patient Safety in Radiation Oncology. Mrs. Mary Coffey and Dr. Joanne Cunningham from DRT are two of four executives of ROSIS. Results from this project have been published and presented at a number of international meetings.
- iii) Population health research. Plans are in early development regarding the possibility of tagging DRT related topics to the broader TCD focus on ageing. In view of the great potential for using radiation therapy as a conservative cancer therapy in elderly patients, who often present with significant co-morbidities, and in view of the changes in the Irish population age structure over the coming decades, this is a logical and valuable research theme. There was also an expressed interest in radiation therapy utilization in underserved populations, especially as related to multi-cultural issues of cancer prevention and care.
- iv) Teaching and learning related research. Several DRF faculty members have an interest in teaching methodology.

The reviewers recommend maintaining research activities in these 4 areas. Although an argument can be made for pursuing fewer research lines in a small department, the above areas are of direct relevance for DRT teaching and for the profession. We strongly recommend that a formal departmental research strategy be developed and documented. Also, a research leadership structure with defined leaders for the four fields should be established.

Standing of the Discipline in terms of published output

There is evidence of an increasing output of peer reviewed research publications, with 25 papers published in the period 2009—2011. Traditionally, RT has been more practice oriented

with less emphasis on research, and this level of research output is notable. In addition, DRT faculty have authored or co-authored three book chapters during this period. Compared with similar programs in Europe, the academic scope and scientific productivity at DRT is excellent. Qualifications and research potential of newly appointed DRT faculty create confidence that the scientific output and the impact of the publications will increase over the next five years. DRT lists six papers submitted to peer review journals that are currently under review. As a minor point, the reviewers encourage DRT to maintain an updated departmental publication list with clear separation of the various types of publications. Also in the individual faculty CV's, published abstracts should be clearly distinguished from published research papers in peer reviewed journals.

Maintaining or increasing the research output, clearly presumes unchanged budgets and number of faculty. Institutional support from the School of Medicine will be essential for advancing DRT research.

External funding for research

Several external research funding applications have been prepared and submitted over the last few years. With a rising research profile of individual faculty members, the success rate for winning grant funding will likely go up. Pump priming and pilot project funding would be highly valuable for stimulating proof-of-principle studies in preparation of external funding application. The School of Medicine should consider an active support program for developing research in RT.

Research students

Currently, DRT hosts two MD students, one in the first year and one in the second year of their study. Their projects address biomarkers for prostate cancer and diffusion weighted imaging in patients with a suspicion of prostate cancer. Results from the second project had been submitted for publication at the time of the site visit. Both students commended the environment and support they received in DRT. Research funding to cover direct costs of laboratory and imaging work seemed to come mainly from collaborating departments within the TCD. Both MD students worked part time in the clinic to offset their personal expenses.

Previously, 4 MD, 4 MSc and 2 PhD degrees have been awarded, all completed within the expected time frame.

Adequacy of student-staff liaison (formal and informal) in relation to research

Current MD students expressed satisfaction with the supervision and the overall research environment provided by DRT. Lauren Marignol was a co-supervisor and seemed to have

played a leading role in the daily supervision of the research work of both students. Although no complaints were made, the supervision seemed to be predominantly informal which is only natural in a small department. As a complement to the informal day-to-day interactions, a more formal structure with documented meetings between the supervisors and the student should be considered.

The MD students had limited interactions with the RT BSc students, although at least one of the MD projects gave rise to a BSc thesis research project. This lack of direct interactions appeared to the reviewers as a missed opportunity.

Balance of published research, research supervision, and other research-related activities in the Discipline

- (i) Research training of RT BSc students culminates with the thesis work starting in the second half of 3rd year. The whole process has been usefully streamlined over the last few years with a more rigorous approach to the planning and execution of each research project. All students write a thesis of generally very high standard based on their project and produce a poster presenting their research. In addition, there is an internal oral presentation of their project. The weight of the project is 20 points out of 60 for the final grade. The BSc thesis work is an outstanding feature of the DRT program. Ideally, the thesis should lead to publications in the peer-reviewed literature. However, this has not happened to any greater extent in the past. Yet, with an emerging stronger research activity among the faculty, this could become more likely to happen in the future.
- (ii) Faculty research. Most faculty members have a defined research interest. Partly this is pursued via the MD student projects. The danger seen by the reviewers is that the goal line becomes the completion of the BSc thesis, whereas extending this work into a publishable research paper may not happen. The time spent by faculty on teaching:research:administration is ideally 40:40:20. In reality, the teaching load in RT takes a considerably higher proportion of the time. Still, faculty members are working to develop their own research. The current scientific output is even more impressive when seen in relation to the teaching burden. However, DRT leadership should work towards the ideal 40:40:20 ratio for all faculty.

Clinically related research has been hampered in the past by a lack of access to imaging and patient data. A specific problem appears to be the local research ethics approval process at St Luke's Hospital. The collaboration with St. James's is more promising.

Activities of the DRT arising from the research standing of its members

The extensive level of intra- and extra-mural service of DRT faculty on committees, commissions and learned/professional societies is summarized in Appendix VII of the Self Assessment Report. Valuable and significant activities involving DRT staff take place within a number of international organizations such as the International Atomic Energy Agency (IAEA), European Society for Therapeutic Radiology and Oncology (ESTRO) and ECCO.

(b) Teaching and Learning in Undergraduate and Taught Postgraduate Programs

Content/level of the programs and number of students;

Content is high standard as befitting for an honours degree program. The challenge is unquestionably to strike a balance between more theoretical basic courses and the practical teaching directly relevant for practicing radiation therapy.

The broader foundation of topics taught in years 1 and 2 is consistent with the fact that the BSc program is aiming at a general academic degree rather than specific professional training. This is important for the stability and continuity of the faculty.

The total period of placement during the 4-year program is 41 weeks, which the reviewers feel is appropriate. The curriculum and course content was not systematically reviewed by us. However, it was brought up by the SF students that they felt that the relevance of the biochemistry course was less than obvious.

Since 2008/09, 30 students are admitted per year, corresponding to an average of 50% of first preference applicants. There are currently no students from outside Ireland. This is surprising in view of the quality of the program, and it should be considered whether wider advertisement of the program could increase the student base and potentially generate revenue.

Distribution of teaching across faculty

The revision of the curriculum necessitates reconsidering the teaching workload across faculty members. The aim should be a more equitable sharing of the teaching load and it was felt that there should ideally be a back-up teacher for each of the main subjects. Especially, teaching in the treatment planning lab is demanding in terms of preparation before each lesson.

Constructive alignment of curriculum, teaching methods, and assessment methods, and rationale for teaching and assessment methodologies used

The teaching methods are generally well aligned with the various aims of the curriculum. Clinical placements, treatment planning lab based teaching, coursework and formal lectures seem to be adequately integrated to promote learning. Facilities for planning labs and the virtual treatment room are first rate. The BSc thesis work represents a major focal point for the research training and methodology teaching. Arguably, DRT succeeds in giving its students a foundation in research methodology that is rather unique for this field.

ML presented a vision for a phased introduction of a new course that would integrate Principles and Practice of Cancer Care with several basic topics such as normal anatomy and imaging anatomy into two 15 credit courses to be delivered in years 2 and 3. The teaching would be partly organ site/cancer type oriented and would combine teaching of basic knowledge with practical skills. The vision behind this restructuring was clearly laid out by ML. Overall, the reviewers concur that this is an exciting and potentially innovative development. However, one challenge would be not to lose the comprehensive presentation of principles of treatment planning. We support the idea of using modern teaching methods and we encourage the faculty to take advantage of the training courses provided by TCD in this field.

The reviewers visited the Department of Anatomy. The teaching facilities are excellent, enabling integration of biomedical imaging from various imaging modalities with demonstrations of normal and pathological anatomy. An active collaboration was in progress with the aim of developing a new anatomy course for the BSc students.

In terms of faculty development and mentoring the reviewers note that this is a relatively young and enthusiastic faculty, and the idea of having faculty mentoring committees with some level of external participation should be considered. This would also involve peer evaluation of teaching methods and performance and would be helpful in term of facilitating individual progression on the academic promotion track.

Currently, MC is the only senior lecturer on the faculty. The reviewers find it important for the academic leadership to work towards filling at least one senior lectureship by internal promotion in the near future.

Adequacy of staff-student liaison in the Discipline (formal and informal) in relation to teaching and learning

There is evidence of good formal and informal interactions between students and staff. This was confirmed by the interviews of the students.

Supervision and support for students on postgraduate taught programs

There is currently no taught MSc program due to a lack of applicants, possibly in part due to the economic situation, and in part due to the fact that there is no requirement to follow a Master's level program to progress to leadership positions in radiation therapy. The department is currently working on an e-based teaching program in which supervision and support of the students will be required.

Arrangements for curriculum review and revision

The Accreditation Committee Draft Report from July 2011, as well as the response from the TCD, was made available to the reviewers. The aim of the report was 1) to assess the clinical placement in relation to the relevance, quality, and timing of the clinical experience, and 2) to evaluate the academic content. The reviewers support the recommendation that having clinical tutors in RT at the 5 major radiation therapy centers in Ireland would be highly desirable. We also concur with the recommendation to establish a strategic document for development of academic staffing. Large parts of the report seemed to address relatively minor points, more focusing on procedural issues.

Methods used to evaluate teaching and learning in DRT, and actions taken in response to student feedback

Each course is evaluated by the students and action is taken when necessary. We did not request and were not presented with documentation of these evaluations and/or examples of resulting actions but presume that they are recorded in the department.

Professional standing and accreditation by professional bodies

The overall tone of the Accreditation Committee Report discussed above appears to reflect a divergence of views between the Discipline and the accreditation committee members regarding the overall weighting of academic versus practical learning. While these reviewers agree that a balance between the manual and theoretical aspects of the BSc program is essential, we do not concur with the implicit impression by the Accreditation Committee that the manual aspects are being inadequately taught.

Opportunities for study abroad, student exchanges, relevant outside experience

Such opportunities exist – and are indeed being used – although it appears that these activities are largely ad hoc arrangements on a case-by-case basis rather than formalized exchange programs.

Funding available to students on postgraduate taught programs

This is a potential threat to the postgraduate program and seems to require addressing at the School/College level.

Outcomes of teaching and learning in undergraduate and taught postgraduate programs

The average retention rate from 2001/02 to 2005/06 was 77% of new entrant JF students registered. The proportion of students gaining a 1st class degree in 09/10 and 10/11 was about 1/3.

Several academic staff members are involved in teaching in other programs of TCD as well as in various international teaching courses.

(c) Overall view and recommendations

DRT is unique in Europe because of its program, the standard of teaching and the increasingly successful ambition to conduct discipline related research. The research conducted in this department is impressive for what is predominantly an undergraduate degree program. At the international level, DRT research compares very favorably with the research in similar departments in Europe and elsewhere.

The greatest assets of DRT are undoubtedly an engaged, young faculty and an ability to attract good students who without exception seemed to value the learning environment in DRT and the teaching provided. The previous leader, Mary Coffey, developed a strong and ambitious vision for DRT that remains a lasting inspiration for the program.

Recommendations for improvement at Discipline, School, Faculty and College level.

1. Maintaining a balance between giving students a solid theoretical foundation on one hand and a more practical, directly applicable knowledge on the other hand, is a challenge in a program with this level of ambition; this balance should be continuously reassessed by the academic staff. In-depth knowledge of basic topics is required in a BSc program aiming at conferring a general academic degree as opposed to providing specific professional training. However, the potential for learning is clearly enhanced whenever the relevance of taught topics to radiation therapy is evident for the student. Teaching offered by other departments should be – and appears to be, to some extent – targeting the RT BSc students directly to address their needs.

2. The reviewers concur with the strong recommendation by the Accreditation Committee Draft Report from July 2011, that having clinical tutors in RT at the 5 major radiation therapy centers in Ireland would be highly desirable.
3. Main barriers to increasing the DRT output of high-quality research are the lack of adequate funding and access to clinical data/biospecimens through clinical, academic collaborators at TCD. Regarding external grant funding it is evident that available opportunities are being aggressively pursued by at least some DRT faculty. Pump priming funds at the School and College level would be extremely valuable in terms of generating proof-of-principle data for external grant applications. The relative paucity of collaborative research opportunities for DRT researchers within the School is a further barrier. The School of Medicine should consider an active support program for developing research in RT.
4. The reviewers recommend a formal departmental research strategy be developed and documented. Also, a formalized research leadership structure with defined leaders for the four main research lines should be devised and implemented.
5. With a high proportion of early-career faculty, mentoring and supervision of faculty should be a priority. Establishing formalized mentoring committees, with external participation on the committees when relevant, should be considered. This should also involve peer assessment of class room teaching as well as of teaching material and curriculum development. Further postgraduate training of staff and academic career advancement with the aim of seeking promotion to the office of senior lecturer should be actively encouraged.
6. Strategic leadership in DRT is another priority. Again, the size of the DRT makes it difficult to develop strategies among the faculty only and it may be relevant to establish a mechanism for getting advice and inspiration from extra-mural peers. The yearly reports from the External Examiners are valuable in this context. However, they do not provide a strategic view on organization, research and teaching in DRT. It may therefore be relevant to create an Advisory Committee that could provide guidance supplementing the official School/College reviews of DRT.
7. Overall, the reviewers felt that the Medical School was the right home for DRT. DRT benefits from the organizational and resource strength of the School, and does in turn provide an active and engaged faculty with potential for introducing innovations in teaching and making valuable contributions in terms of research. If this relationship is properly nurtured, DRT could become a 'model' department both within and outside the School.

3.2.2 RESPONSE FROM THE HEAD OF RADIATION THERAPY

The Discipline welcomes the report and extends its thanks to the external reviewers and College personnel who facilitated this review. The report reflects the current status of the Discipline and makes recommendations for us moving forward which are very welcome. The response below follows the structure of the review.

(a) Research and Scholarly Activity

Research interests

The reviewers comment on the four areas of research interest within the Discipline. During the review Dr. Marignol was successful in her application for funding from the Irish Cancer Society and has started the preliminary planning of the project. Mary Coffey and Siobhan Ni Chunnigain are awaiting sign off on a grant based on the ROSIS project, from the two main equipment companies and expect to commence work on the project before the end of the year. Anita O'Donovan has linked with the ageing consortium and has registered for a PhD in the area. She is considering a range of grant options.

The areas of cancer and radiation biology, radiotherapy related research and population health research give opportunity for new and novel research approaches opening up stronger links with other disciplines within the School of Medicine. Strong links already exist with Urology through the Prostate Consortium and links with the ageing have already commenced. The links with Anatomy for teaching purposes is outlined later in the report and there are further possibilities for links with Nutrition and Dietetics, Physiotherapy and Surgery. The Discipline can make a positive contribution to the overall research profile of the School of Medicine focusing on these areas. With respect to research in teaching methodology and learning the Discipline feels that it is the professional responsibility of all lecturers to be cognisant of both tried and tested and novel approaches to delivery of their subjects and are not necessarily part of a research profile. Stronger links with the undergraduate teaching and learning committee of the School of Medicine will enable a greater sharing of experience to the mutual benefit of all.

The reviewers are clear that to maintain and increase the research output the staff complement and budget must remain unchanged. As a professional course it is important that the staff are cognisant of developments in the discipline and, indeed, lead these changes where appropriate in order to ensure that graduates are not only competent for current practice but in a position to evaluate and implement changes in the future.

The reviewers recommended pump priming and pilot project funding to stimulate further research. The Discipline views this as particularly relevant for a young staff who are still developing the research profile necessary to compete for grant funding. We would suggest

that a proportion of our existing non-pay budget could be set aside for this purpose. We would also welcome advice and support from our more experienced colleagues in the School of Medicine.

Research students

The Discipline acknowledges the significant input of Dr. Marignol in supporting the MD programme in Urology. We note the comments of the reviewers with respect to the MD students having a greater level of interaction with the RT students and will certainly explore the opportunities for this in the future. We will review areas within teaching and research where the increased interaction would be beneficial to both groups.

Balance of published research, research supervision, and other research-related activities in the Discipline

The Discipline welcome the reviewers' comments on the quality of the undergraduate research which has been a strong focus of the programme from the beginning. We fully agree with the comments relating to the publication of undergraduate research findings. Previously we have given the responsibility of writing up the findings of the research thesis for publication to the individual students but in future the supervisors will take responsibility for this and draft guidelines for the students and staff will be prepared.

(b) Teaching and Learning in Undergraduate and Taught Postgraduate Programmes

Distribution of teaching across faculty

A staff workload review has already commenced to ensure equity across all lecturers. We also agree with the recommendation that back-up teachers are put in place for each of the main subjects. This will be dependent on maintaining the current staff complement.

Constructive alignment of curriculum, teaching methods, and assessment methods, and rationale for teaching and assessment methodologies used

We are delighted with the comments of the reviewers with respect to our teaching methodology, integrated approach and future vision. We see the future liaison, particularly with the Anatomy Discipline, as dynamic and innovative. Michelle Leech was successful in recent interviews for the Senior Lecturer position and another lecturer is working towards promotion in the near future.

As the national education programme for RTs, we are keen to introduce the concept of peer review and evaluation of content and teaching methodology and would be very happy to take the lead in this area from the School of Medicine perspective.

Supervision and support for students on postgraduate taught programmes

The taught MSc course will commence in September 2012 and the staff have put a lot of effort into a blended learning approach maximizing the capacity of the new VLE. Individual modules will be offered to clinical staff and defined modules will be used in the proposed liaison with Singapore Institute of Technology. Again the Discipline is very happy to take a lead in this area.

Professional standing and accreditation by professional bodies

The Discipline notes and appreciates the comments of the reviewers on the recent professional accreditation report.

Opportunities for study abroad, study exchanges, relevant outside experience

The Discipline has had problems in the past with student exchanges given the timing of academic and clinical modules and also the quality of the academic programmes in several countries. We have facilitated placements in Belgium, France, United Kingdom and America but on an informal basis. We are currently exploring links with a Radiation Therapy programme in a particular institution in Sydney, Australia with regard to both student and staff exchange and also with the Singapore Institute of Technology.

(c) Recommendations for improvement at Discipline, School, Faculty and College level

(2) The Discipline acknowledges the ongoing problem with regard to clinical tutors. We have been working for many years to address this problem with no success. We would welcome the support of the School, Faculty and College in seeking to bring a resolution to this issue.

(3) There are very significant and ongoing difficulties in both collaborating with and accessing clinical data from St. Luke's Hospital. Unfortunately this has not altered with the development of the two new departments at St. James' and Beaumont as the Ethics committee is still controlled from St. Luke's through the St Luke's Radiation Oncology Network. We are in ongoing discussion to try to resolve this issue but are currently developing links with centres in other countries that are keen to collaborate with us, share clinical data and have our students carry out research projects in conjunction with them.

(4) The Discipline welcomes the recommendation to develop a formal research strategy and Dr. Marignol, as Head of Research in the Discipline, has commenced this process by meeting individually with all staff members and drafting a formalised research strategy for the Discipline.

(5) The Discipline welcomes the recommendation of early career mentoring and supervision and the establishment of formal mentoring committees. This links with point 1.2.3 and the development of peer review of teaching methodology and lecture content.

Overall the Discipline is very appreciative of the time and attention given by the external reviewers and welcomes their comments as constructive and relevant for our future.

3.3 OCCUPATIONAL THERAPY

3.3.1 REVIEWERS' REPORT

(a) Research and Scholarly Activity

Since 2001, the faculty of the discipline of occupational therapy have produced 3 book chapters, 45 peer review journal articles, 75 conference papers, 24 meeting abstracts, and 10 peer reviewed poster presentations. Based upon this track record, there is a very high likelihood of continuing and increasing numbers of research activities and related publications, especially given the attainment of research doctorates by a number of the staff and their growing research profiles.

This is a very good output for faculty within the discipline of occupational therapy but especially for a faculty with a high teaching load. The research and scholarly output is competitive internationally and certainly has been leading in Ireland. This output should also be viewed in the context of occupational therapy and occupational science being a relatively new academic discipline. The output on part of faculty is consistent with Trinity College of Dublin's mission as a high profile research institution.

Ongoing research could be negatively affected in the future by overall workload of the faculty (increased number of students with a constant number of faculty and the inter-institutional project with a university in Singapore). In addition, research priority as stated in the school of medicine strategic plan doesn't include and embrace topics that are core subjects in occupational therapy and occupational science, even though occupational therapy participated in an "away day" consultation with stakeholders for the plan. (We understand that the strategic plan is an evolving document that will have an interim review in the summer of 2012.)

Increasing the numbers of research Ph.D.s and research master's programme students could contribute more time dedicated to research. There is an opportunity to build a research culture within the discipline that does not yet exist, including identification of three to four strands of programmatic, disciplinary research. Support for submitting research proposals is available through Trinity Research and Innovation (TRI) and writing courses are available through the Centre for Academic Practice and Student Learning (CAPSL). Targeting use of these resources may benefit the faculty to generate research proposals.

Evaluate the Discipline in terms of its performance in the last five years, and likely success in the next two years, in rising external funding for research.

The discipline of occupational therapy is located within the Medical School. It should be noted that basic science research that predominates in medical schools is not the research model in

the discipline of occupational therapy, which often works outside of a medical model. Further, occupational science and occupational therapy is an evolving discipline in need of development to better serve societal need.

Without change in research culture and support for development, specifically support and mentoring in grant writing and application, the discipline may be challenged to develop to its full potential. The programme has a sustained track record of smaller grants, with an established record of larger grants on the part of more long serving faculty, and is an internationally leading programme producing research that is highly respected. However, in order for it to go to the next level, additional resources are needed such as grant writing mentorship, the addition of the planned senior professor, development of a research plan for the discipline, elaboration of the school of medicine's research priorities to include occupational therapy, and dissemination of the plan to potential research students and current students.

We find the output of the faculty in terms of research to be amazing, given the dearth of resources available. All students were extremely positive about levels of support and effectiveness of supervision. Co-supervision for research students could be positive if adopted in the future. Seasoned faculty from outside the discipline should be involved in such co-supervision, to be determined by the project leads. There is limited involvement of the unit with the overall school of medicine which is a disadvantage for all involved. It should be evaluated if placement in the medical school is, indeed, the best fit for the unit.

The culture of the unit is not one of collaborative research. Instead, it is very much an individualistic research culture that has little or no common themes or linking theoretical underpinning. This lack of a theoretical underpinning will limit long range research potential. We recommend, therefore, that emphasis or at least a linking to occupational science as a foundation for all unit research be instituted.

From a 0 base in 2001, the discipline has produced 4 PhDs and 3 research masters. We believe the occupational therapy discipline at Trinity College has the strongest research focus of any of the programs in Ireland, and that this focus should be maintained and strengthened. The research topics presented are truly embedded in the topics of profession that are current, important and relevant. Yet, publication from this research activity may be lagging. We accordingly recommend evaluation of use of traditional thesis and dissertation formats to include development and publication of articles in peer reviewed journals as a substitute format for thesis and/or dissertations.

(b) Teaching and Learning

The teaching and learning syllabi are very well planned and organized. The courses in the modules appropriately cover required content. The overall content area for occupational therapy is well planned and is sequenced, fluid and well integrated with practice. Compared to other programmes internationally, the curriculum appears excellent and completion rates are excellent. The programme is competitive in nature and attracts a large number of applicants. First preference applicants are more than double the quota.

The program of undergraduate study in the discipline in occupational therapy is appropriately designated as an honours program. The number of students in the honours undergraduate program is targeted for 40, and the program “over” accepts to allow for some but limited attrition. The variety of teaching methods used in the discipline is impressive and changes according to students' and materials' needs. Evaluations are numerous and well designed, however, they could be reduced in order to lessen teachers' load.

The taught master's curriculum is well organized, with a focus on research in relation to professional content that is unique in Ireland. Students are well satisfied with the course content and with related research experiences. They are also very well satisfied with their research advisors, however, as previously identified would benefit from engaging a second advisor from related disciplines.

The distribution of teaching across staff members does not seem to raise issues with staff members.

It is noteworthy that students at all levels critically and openly evaluated the various components of their studies, and at the same time expressed a high level of satisfaction with the program.

There appears no integration or relevant overlap between the bachelor's programme, the research master's programme and the taught master's programme. Students appear hungry for such interactions. The focus of such interactions could and should be around research of the students and faculty. In addition, ongoing research as it is related to areas of specialty practice content should be more clearly elucidated and marketed. Clearly linking research projects to evidence based clinical research questions will render a unique master's programme visibly different from those graduating from other occupational therapy masters programmes in Ireland.

(c) Engagement with Society and Service to the College

Trinity College has a gem of a programme in the occupational therapy discipline. Two outstanding projects are ongoing and receive national funding and exposure. One has to do with integration of students with behaviour issues into mainstream education at the secondary level, and the other has to do with support services to students at the third level. These are leading, innovative programs that represent the cutting edge of engaged research. The support service to students with disabilities at the third level is connected to an international research group. The projects should be evaluated and disseminated as innovative project models. One of the projects is already being replicated in two other third level institutions. These two projects represent significant engagement in society overall and service to the college.

(d) Resources

The physical resources are well lit, well maintained and appear adequate for the current programme. How the current physical resources can accommodate the infusion of Singapore based degree students is not clear and no plans were clearly identified.

For the number of students in the programme, presence of only one support staff is low when compared internationally. Typically, with this number of students and graduate students, 2 full time administrative support staff would be more usual. In fact, the staffing approaches the equivalent of two FTE when considering additional of the recently appointed Therapies administrator.

Academic staff appears to be at approximately the same number they were at the last review, but with masters and PhD programs and a partnership with Singapore underway. The reviewers are concerned that the long standing excellence of research and innovative of this programme may be compromised by “doing too much” and “spreading too thin.” It is strongly suggested to immediately put a moratorium on the Singapore programme until adequate staffing; space and planning have been developed. As it currently stands, the reviewers are concerned that the programme and Trinity College is being set up for significant difficulties. The current master’s programme director is trying to do right and do well by setting up this programme, but we believe that this requires systems participation and organization far beyond just the occupational therapy unit and physiotherapy unit. From the perspective of the developing discipline, strengthening the master's programme is a more urgent priority than the Singapore programme. (The reviewers recognize that the Singapore programme is due to be implemented in September 2012).

(e) Organizational Structure and Planning

This appears to be a major weakness for the programmes in occupational therapy. Management structures within the discipline do not appear effective. It is not clear how decision making within the discipline is conducted. Because of teaching, service providing and research load, individuals are all doing their own thing, but no disciplinary vision or cohesiveness is evident. We believe this may be related to the relative lack of senior faculty, and the group overall being made up of “equals.” For this reason, it is strongly recommended that the two longstanding faculty and the discipline's chair who are eligible to go up in rank do so as soon as possible and go through the academic promotion process. Some sort of senior cohort needs to take over the general organization of the unit, with necessary support, recognition and authority. This lack of cohesiveness undoubtedly contributes, in part, to the lack of stature of the department in school of medicine operations.

The discipline doesn't have representation in the planning and decision making bodies of the school of medicine. We noted inconsistency of operations on the part of the school of medicine when it came to treatment of the three disciplines within the medical school (radiation therapy, physiotherapy and occupational therapy). A critical example of this inconsistency is the lack of representation of the discipline in the school directory board. The reviewers do acknowledge that the discipline of occupational therapy is represented on the curriculum group of the school of medicine. Nevertheless and regardless of intent, the net result is that the occupational therapy unit appears disenfranchised.

(f) Other findings/comments

The programme in occupation therapy is innovative; research oriented, superbly taught, and has great potential for continued innovation and nationally leading in research. Lack of cohesion, lack of leadership with authority and reasonability, limited representation in planning and decision making, and lack of integration across programmes offered prevents it from developing to its full potential. Please refer to the previous external report of 2001. It is a reflection upon Trinity College that many of the issues uncovered by this review are reminiscent of issues uncovered in the 2001 report, but still not resolved. It pains us as reviewers to bring this to attention, but so we must. It is not acceptable that issues from 2001 remain issues in 2012. For purposes of clarity, these issues from 2001 that persist in 2012 are summarized herein (quoting the 2001 report):

- Staff people are hardworking and committed but for a variety of reasons have been unable to operate as an internally cohesive and integrated discipline with the University;
- There is a lack of an overriding articulated philosophical statement of goal for OT;

- In order to progress there is a need for mentorship and development of a culture of research;
- Lack of easy access to procedures e.g. covering maternity leave and promotions at all levels;
- Insufficient administrative support and poor structure within the Faculty;
- Absence of a network of experience within the Faculty that can support different professional groups;
- Lack of transparency with budgeting and equity across departments in relation to student numbers etc;
- Lack of institutional strategic planning (lack of inclusion of OT priorities within the school of medicine strategic planning);

Recommendations from the 2001 report:

1. More dedicated administrative support from the Faculty be made available to ensure better integration and utilization of the University infrastructure and resources. The reviewers note that shared access to a Therapies administrator has been in place for several years.
2. Strategic people in other departments be identified to mentor and support staff in their different roles whether as leaders or researchers and supervisors.
3. The creation of a full Professor / Chair in Occupational Therapy post be considered by the University. The reviewers have been informed that this is currently under consideration since the working draft of these documents was submitted in April 2012.

(g) Overall view and recommendations

The review was facilitated by the staffs' honest and in-depth self assessment and by their and the students' open communication with the reviewers. We conclude that the occupational therapy is an excellent programme with great potential and consistent with the Trinity mission of research of meaning and service to society. However, it is time to attend to chronic issues in the unit. See recommendations and commendations that follow.

Recommendation 1: This recommendation is confidential and has been removed from the report.

Recommendation 2: Grow a collaborative and supportive research culture in the unit.

Recommendation 3: Evaluate if placement in the School of Medicine is the best match for the unit. If it is not, move the unit. If it is, so be it, but involve the discipline in the planning, decision making and priority of the school. Regardless, the unit should better integrate with the overall school in which it is placed. The school and discipline wish to highlight the fact that the school did commence this process but were requested not to continue it. The process can be recommenced.

Recommendation 4: Link all unit research to the evolving discipline of occupational science. This could be far reaching and not restrictive of topics of study, but does require a common linking of the focus of all staff research to a common core of occupation.

Recommendation 5: Co-supervision for research students could be positive and better integrate the unit across all fields of study if someone from outside the discipline would be involved as a co-supervisor for research master's and Ph.D. research. Research master's students and especially Ph.D. students may benefit from having two advisors. One should continue to be from the discipline and the other could be from another discipline relevant to the research, or someone qualified from the site where the research is being conducted. Phase this in first with Ph.D. students and then research master's students. Since the draft version of this report was submitted in December 2011, the school and discipline wish to point out this has happened for two of the Ph.D. students and two of the master's students. Relationships have been built within the school of medicine and with other schools of Trinity for this purpose. We encourage the elaboration of such collaborative supervision.

Recommendation 6: Evaluate use of traditional thesis and dissertation formats to include development and publication of articles in peer reviewed journals as a substitute format for thesis and/or dissertations. For example, support a peer review network for research students. Another example would be presentations of on-going research with solicitation of feedback.

Recommendation 7: Provide meaningful interaction for all students in the programs by setting up focused events on the research of the faculty and the students that all should attend and discuss.

(h) Commendations

Commendation 1: For the discipline of occupational therapy, the research output is competitive internationally.

Commendation 2: Research students receive very good support from their advisors.

Commendation 3: The retention rate of students is very high and all students report great satisfaction with the course of study.

Commendation 4: A hardworking and committed staff.

Commendation 5: Public funding of the placement coordinators for students' clinical practice is a noted as well as help and strength of the program.

Commendation 6: Development of two innovative outstanding projects contributing to society and the college service.

3.3.2 RESPONSE FROM THE HEAD OF OCCUPATIONAL THERAPY

This response shall firstly respond to the recommendations and the strategic direction (confidential aspects) of the report. It will then address some of the additional points raised by the external reviewers in the main body of their report.

Recommendations

2. Evaluate the location of the Discipline within the School of Medicine.

This option has been explored many times already. As Head of Discipline during the restructuring process (2005-2006), I thoroughly explored the possibility of moving to a different Faculty/School. It was explored again by the next Head of Discipline in 2007-08. However, neither time resulted in the Discipline moving out of the School of Medicine. The outcome of these negotiations was that it was a very unsettling and distracting time for staff with no changes made to our location. Re-visiting this issue again is only likely to lead to the same outcome. For this reason, this is not something the Discipline is going to explore at this time as the priority for the Discipline is to focus on developing its research profile. It is strongly believed that re-exploring re-location options will only distract from this objective.

The Discipline does however need to be actively involved in the decision making processes of the School of Medicine. Since the restructuring in 2005-06, the Head of Discipline of Occupational Therapy has not been a member of the School Executive. On discussion with the interim Head of School, Professor Browne, he has stated that this will be rectified and, as of the new academic year 2012, the Head of Discipline of Occupational Therapy will sit on the School Executive.

3. Grow a collaborative research culture

The reviewers commented that the research culture of the Discipline is individualistic and lacks cohesion. This is reflective of the fact that the current focus for many staff is completion of their PhD's related to the areas of their clinical experience. There are eight academic members of staff in the Discipline five of whom have not got their PhD. Of these five, one has just submitted, two are currently on the register and one is ready to register in this coming academic year. It is anticipated that when staff have attained their PhD's, this will facilitate more collaborative research within the Discipline.

Occupational therapy covers a wide spectrum of health conditions across all ages, and Discipline staff are all involved in research in a variety of these areas which are linked to their clinical expertise. This could also account for the reviewers' sense of a lack of cohesiveness within the Discipline. The individualistic nature of the research could also be viewed positively, in that it reflects the diversity of occupational therapy professional practice providing greater potential to attract postgraduate research students

As recommended by the reviewers, a clear research strategy reflecting the main focus of research within the Discipline will be developed during the academic year 2012-2013. It is anticipated that this will demonstrate existing and potential collaborations within and outside of the Discipline.

4. Link all research to Occupational Science

To do this would restrict the range of research activity within the Discipline as not all of the research taking place within the Discipline fits within Occupational Science. Much of the focus of our current research is weighted towards translational research which explores methods for enhancing occupational (activity) performance and participation of people with a range of sensori-motor and mental health difficulties. However, Occupational Science may be included as a strand within the Discipline's research strategy.

5. Co-supervision of research students

Three staff have already, well in advance of the academic review, appointed co-supervisors for their PhD and Master's students. This practice will continue as appropriate.

6. Evaluate use of traditional thesis for examining undergraduate and post-graduate research.

This option will be considered by the Discipline's Curriculum Committee for both undergraduate and post-graduate students. Exploration of this issue will need to be cognisant of College and School policies for examining undergraduate and post-graduate research.

7. Increased research interaction and integration across the various programmes delivered within the Discipline.

All staff facilitate this integration by having undergraduate and post-graduate research projects feed into their own research areas. Again, it is envisaged that when all staff complete their PhD's, there will be more scope for this type of integration. A research symposium is planned for November 2012 to present current undergraduate, post-graduate and staff research as a means of further facilitating this type of integration and to 'market' the range and level of research within the Discipline. This should also support the reviewers' recommendation of growing a collaborative research culture within and outside of the Discipline.

4. REVIEWERS' REPORT FOR THE SCHOOL OF MEDICINE REVIEW

The review group were issued with substantial briefing documentation including a Self Assessment compiled by the School of Medicine. The review visit took place over 4 days from February 5th – 8th. The reviewers met with a wide range of staff at the School of Medicine Trinity College, St. James's Hospital, Tallaght Hospital, and associated institutes & centres for research. We also met with a selection of undergraduate & postgraduate students. We wish to acknowledge the co-operation of staff and management at all the sites we visited and thank all the individuals we met for the openness and warmth of their engagement. We wish to acknowledge the expert support of the quality office, in particular Helen Condon, Dr Liz Donnellan and Elspeth Hayes. We thank Prof June Nunn for efficiently chairing the review meetings, and keeping us to a tight time schedule. The effort invested by the Acting Head of School, Paul Browne, and the director of undergraduate medical teaching, Martina Hennessy in facilitating many of the meetings is acknowledged.

Context

It was clear from the briefing documentation and reinforced over the course of the review that the School of Medicine finds itself operating in a very challenging financial environment and facing major organisational change in both education and healthcare delivery.

Education

The economic crisis which unfolded in 2008 has resulted in serial reductions in the funding available for education, research and healthcare delivery. Staff have had to absorb cuts in pay and increases in taxation, the University has absorbed cuts in budgets and in staffing whilst at the same time increasing enrolments. Further reductions in both headcount and budget will be required over the next three years. The funding mechanism for medical education in Ireland is less generous than that in other jurisdictions and much of the delivery of healthcare education depends on the goodwill of clinicians and hospital staff. There are few direct incentives to non-academic staff or to hospitals to engage in undergraduate & postgraduate education. The State funding of the Medical School comes to the University via a combination of a block grant which is weighted by student type, and payment of student fees. When these sources of income are aggregated, the annual income per medical student is of the order of €15,000. This contrasts with non-EU fees of €31,000, and UK average funding of more than €30,000 (including HEFCE, Fees and SIFT). The crisis in the national finances shows no sign of abating in the medium term, so it is unlikely that Government sources of funding for education will increase.

We are also conscious that Government will be looking for rationalisation (removal of duplication) in delivery of educational programmes. The example of the recent recommendations in respect of teacher training illustrates the potential impact on the sector. The relatively smaller programmes in the Allied Healthcare Professions may be vulnerable in this context.

Research

The research funding provided by Government through agencies such as Science Foundation Ireland (SFI) and the Health Research Board (HRB) has been curtailed in recent times and is set to fall further. This is reflected in the substantial drop and further anticipated fall in research income to the University.

Health

The financial crisis has seen significant serial cuts in the funding of the healthcare system. The Government has made radical proposals with regard to organisation and delivery of healthcare with the introduction of Universal Social Insurance, the abolition of the Health Service Executive (HSE), and the establishment of hospital groups operating as trusts and linked to academic institutions. Heads of Agreement have been signed establishing Trinity Health Ireland (THI). This is a nascent academic medical centre incorporating St James's Hospital, Tallaght Hospital and Trinity College School of Medicine.

Whilst the formal announcement from Government is awaited, it is anticipated that Trinity College School of Medicine will now be aligned with a hospital grouping based around St. James's Hospital and Tallaght Hospital and incorporating General hospitals in Naas, Tullamore, and Portlaoise, and possibly the Coombe Women and Infants Hospital. This reorganisation will entail major managerial and structural changes in organisation and delivery of hospital care.

The campus at St. James's Hospital has been selected as the site for the National Paediatric Hospital which will act as the tertiary service for the entire country as well as providing secondary paediatric care for the greater Dublin area. This hospital will also provide educational and research facilities to all three Dublin Medical Schools and will be the subject of a separate governance structure. The relationship between this national institution and the evolving hospital grouping under the aegis of Trinity Health Ireland will be the subject of a delicate negotiating process.

As the hospital grouping evolves, the concept of THI as an academic healthcare network centred on Trinity College Medical School will require modification. The nature of the interaction between the University and the hospital group remains to be defined. It has been suggested that the Head of the Medical School will be the CEO of Trinity Health Ireland but the reporting relationships, organisational structure and governance structures await clarification from Government and HSE.

In compiling its report the group is conscious that all of the programmes delivered by the School of Medicine have recently been the subject of accreditation visits. We do not propose to deal in great detail with the programmes of teaching and learning but to focus more on research, organisation and governance.

(a) Research and Scholarly activity

The group met with a wide range of researchers, and visited several sites. We were impressed by the enthusiasm, dedication, collegiality, and ingenuity of the investigators and the quality of the infrastructure.

The research outputs of the school are impressive in a number of areas, particularly given the prevailing operating environment. The competitiveness in attracting external funds for research also meets international standards.

There are clear areas of international quality research, for example in Immunology, and the School and College have identified strategic areas of particular emphasis: Immunology and Infection, Molecular Medicine, Neurosciences, Cancer, Population Health and Ageing. One of the reasons that the research is successful is that it has developed organically in a 'bottom-up' manner, which has fostered a strong culture of collegiality, entrepreneurship and collaboration. In some of these areas, there are dedicated Research Institutes, some with their own infrastructure, while others e.g. Cancer, are more dispersed. At present, there seems to be little alignment between institutional strategy and the dedication of significant resources to these academic strengths. Furthermore, there are a variety of other Institutes and Centres, some of which are buildings, others of which are research groupings. Whilst there are lines of reporting to Schools and to the Dean of Research, these were not clearly visible to the reviewers, nor was it clear how the centres fitted in to an overall research strategy.

Much of the clinical research is led by clinicians with only an honorary affiliation to the School. These activities are laudable and some clearly align with the research strengths of the School. However, these efforts rely to a large extent on the enthusiasm, goodwill and dedication of staff, and a commitment to working above and beyond their normal remunerated duties. As clinical pressures increase, as they inevitably will, these individuals will have great difficulty in sustaining their effort, making a large part of the clinical research activity vulnerable.

We observed that St James's Hospital is a flourishing academic teaching hospital with growing infrastructure for both basic and clinical research and strong engagement of the clinicians in teaching and research. At Tallaght, there are a number of dedicated research driven clinicians and clear research strengths (e.g. Neurology, Hepato Pancreatico Biliary Surgery and Gastroenterology). However there was a clear perception of marginalisation relative to St James's due to failure to fill key Chairs, relative paucity of research facilities and support functions, heavy clinical workload and concern over its role in the evolving THI. Investigators at both hospitals feel that the level of facility and administrative costs charged by TCD is a barrier to bringing research proposals through TCD.

(b) Teaching & Learning

All of the accredited programmes have been the subject of detailed reviews in recent years. In general the undergraduate students that we met are of a high standard and are happy with course delivery. The teachers are enthusiastic and demonstrate strong loyalty to the institution and pride in their teaching role. However, the teaching effort is over dependant on the voluntary efforts of HSE staff, and is vulnerable to the competing clinical demands.

Furthermore, many of the clinicians felt that teaching is undervalued relative to research by the College, manifest, for example, by the apparently greater emphasis on research as a criterion for career advancement. Student feedback appeared to be patchy and not mandatory and students reported that the evaluation systems did not allow them to deliver feedback on individual lecturers. Some faculty expressed the same concern.

There are concerns regarding availability of pre-registration House officer posts for graduates. The recent increase in the numbers of EU graduates is outstripping the ability of HSE to create positions. The current unavailability of internships for Non EU students puts Ireland at a competitive disadvantage compared to the UK in attracting these students.

The School offers an impressive and innovative range of taught and research Masters. Some of these programmes attract small numbers of students and will be difficult to sustain. There are a large number of PhD students in the School and we met with some of these. In general, they were very positive about their supervisors and their experience at TCD. Some of these report a structured component to their PhD and regular meetings with a supervisory group, but others did not. Students studying at the St James's campus felt a sense of isolation and would welcome opportunities for more structured engagement with their peers. A popular lecture series (held on Mondays) appears to have been suspended recently and students request that consideration be given to reinstating it. Students reported that they were given ample opportunities to present and discuss their findings locally, nationally and internationally.

(c) Engagement with Society and Service to College

In addition to healthcare delivery for the community in central and south-west Dublin, clinical academics provide high quality tertiary level services for the whole country in a number of specialist areas. The School engages directly with the local community (outreach programmes) and provides advice and leadership for a number of government agencies. It hosts a Centre for Pharmaco-Economics and Health Technology Assessment and aspires to become a key provider of evidence-based policy recommendations (Centre for Health Policy and Management). The longitudinal studies of Ageing (TILDA) and Children (GUI) provide open access databases for researchers in Ireland and across the world interested in determinants of health across the life course.

(d) Resources

As noted in the context section, financial resources are becoming increasingly scarce. It is likely that research income will become increasingly dependent on non-exchequer sources, e.g. EU, Wellcome Trust, etc. The opportunity to increase income through the recruitment of non-EU students is limited by clinical capacity; in the meantime the School remains dangerously dependent on income from this group of students. This income stream is vulnerable to changing international environments or to a decline in the quality of the student experience. The human resources are challenged by the competing needs of the health service and the

limitations imposed by the Employment Control Framework. Furthermore, the low numbers of university-salaried clinical academic staff poses a significant challenge to the delivery of teaching and research and the possibility of attracting additional resources e.g. commercial, philanthropic.

Academic and clinical faculty are of the view that there is poor transparency within the College structures as regards school income and resource allocation to and across the school. This particularly applies to income derived from Non EU students.

(e) Organisational Structures & Planning

As noted above, the current structures are confusing, complex, and in parts opaque. Within the School, there are currently nineteen disciplines, at least seventeen research facilities/institutes spread across three campuses. The rationale for the nineteen disciplinary groups is unclear. The size and disciplinary structures in the four Schools of the Faculty of Health Sciences is grossly asymmetric. Furthermore, Genetics, Microbiology and Immunology, which have a strong footprint in the School of Medicine, are in a different Faculty. The departments delivering the programmes in the Allied Healthcare Professions have a strong educational focus, and whilst there is some notable engagement in the research mission of the School, some of these disciplines appear to sit uncomfortably within the School of Medicine. The opacity of the current structure and processes impairs human and financial resource management and strategic planning and creates a perception of hidden resources and unfair allocations.

(f) Overall view and recommendations

Overview

We were very impressed by the calibre of everyone we met, and with their commitment and passion for the core missions of teaching, research and clinical care. A laudable culture of collegiality, collaboration and institutional loyalty and pride is very evident. Given the resources available, the achievements of the School in teaching and research are, in our opinion, exceptional. The historically strong TCD 'brand' is widely embraced and underpins the institutional culture. The External Reviewers fully acknowledge the difficult operating environment and the major challenges that lie ahead but see this as a time of immense opportunity to build on the considerable successes of the School and its associated hospitals.

We have concerns about the sustainability of both the research and teaching missions, which are both excessively dependent on goodwill. We are concerned that these missions may be at a tipping point, where slightly more additional external pressure may greatly impair the ability of TCD to perform at its high historical level. The organisational and management structures are complex, and in parts opaque. The clinical sites are split geographically and culturally and a shared vision is not apparent as yet.

Recommendations

1. In order to manage an institution of this complexity and dynamism, particularly in an era of scarce resources, robust performance management systems are essential and should be instituted as soon as possible.

2. The School should develop transparent structures and management processes to promote and match the outcomes listed in its Strategic Plan. For example consideration should be given to creating ‘hard’ institutes that match the School/College strategic themes and abolishing departments. Alternatively academic resources could be more explicitly aligned with clinical departments of the medical centre.
3. Consideration should be given to establishing a School of Allied Healthcare Professions within the Faculty - perhaps including Pharmacy and/or nursing and to moving the “life science” disciplines in the Science Faculty into the Health Sciences Faculty.

4. The School should pursue ways to increase income by i). Diversifying research income sources, i.e., from EU sources, Wellcome, etc. ii). Increasing international student income at both undergraduate and postgraduate levels. iii). Increased philanthropic income exploiting the TCD brand, more specifically, medical alumni. iv). Commercial income (teaching and research). The reviewers suggest the TCD is not taking advantage of the strong loyalty of its medical alumni, especially in the U.S., and should invest more human resources in garnering philanthropy from this group.

5. We strongly support the concept of the academic medical centre (THI) involving the network of hospitals and the School of Medicine. Academic clinicians play a key role in leadership and delivery of the mission of an academic medical centre.
 - a. First, we strongly recommend that a clinical academic is appointed as Head of School, and Chief Officer (with academic and executive leadership roles) of this emerging organisation.
 - b. Second, we recommend forceful advocacy aimed at obtaining the resources required for protected academic time for HSE funded clinicians and additional clinical academic posts. Otherwise this unique opportunity will be wasted. The outstanding success of the Medical Gerontology initiative is a living example of the return on investment that is possible for both Healthcare and Academia.
 - c. The research strategy of the School should align with the areas of clinical expertise in the network. The focus of Government Healthcare strategy is on moving services delivery out of Hospitals and into the community. THI will be particularly well placed to lead innovative research in this space.
 - d. We also applaud the mission and strategic plan of the Institute for Population Health and support the establishment of the Trinity Translational Medical Institute as a “hard” institute on the St James’ site.

- e. We recommend that in establishing THI, the academic aspirations and interests of both hospitals are recognised and are afforded parity of esteem.
 - f. There are tremendous opportunities for rationalisation and synergy in providing clinical service, teaching and research. The TCD brand can be used to develop a unifying ethos for the evolving THI, and TCD plays a key role in communicating the added value of the THI concept.
6. We recommend that more robust feedback and evaluation systems be implemented for all undergraduate teaching.
7. Given the dependence of the TCD educational mission on the goodwill and enthusiasm of the clinical teachers (non-academic), the School should strengthen its communication strategy and its recognition and reward systems for excellence in teaching, including routes to promotion and career development.
8. There is a need for investment in modern teaching supports such as the virtual learning environment, on-line programme delivery, and computerised assessments.
9. PhD students would benefit from a more uniform application of the IUA recommendations for structured PhDs - specifically structured modules in the early years and a defined graduate supervisory group.
10. More robust data on completion rates are required.
11. Interventions to strengthen the sense of community among the PhD students, especially across the varied campuses, are recommended.

5. COLLEGE RESPONSES TO THE SCHOOL OF MEDICINE AND THERAPY REVIEWS

5.1 RESPONSE FROM THE HEAD OF SCHOOL

Introduction:

The School of Medicine would like to thank the Review Team for their work and input to the review of the School in February 2013. All involved found it to be an engaging and informative process. We welcome the Reviewers' report, their positive comments and their appreciation of the challenging environment faced by the School. We would also like to thank all those involved in the external reviews of the Therapy Disciplines (Physiotherapy, Occupational Therapy and Radiation Therapy) carried out during 2012.

Response to key recommendations:

School of Medicine Review:

Strong support by the Reviewers for the concept of the academic medical centre (Trinity Health Ireland (THI)) involving the network of hospitals and the School of Medicine, with the appointment of a clinical academic as Head of School and Chief Officer (with academic and executive leadership roles) and alignment of the research strategy of the School with the areas of clinical expertise in the network. In establishing THI, the Reviewers recommend that the academic aspirations and interests of both hospitals are recognised and are afforded parity of esteem and suggest forceful advocacy aimed at obtaining the resources required for protected academic time for HSE-funded clinicians and additional clinical academic posts

The School welcomes the support of the Reviewers for the ongoing development of Trinity Health Ireland (THI). This is an important element of the School's Strategic Plan and will allow for the incorporation of operational activities between the School of Medicine and its major teaching hospitals, in a manner designed to maximise the capacity for delivering clinical care, providing excellence in medical education and training, delivering high-quality biomedical research, and contributing to economic and social development in an integrated way. The appointment of a Head of School/Head of THI will be a key driver to facilitate the progression of this initiative and should be progressed as a matter of priority. However, the recruitment and retention of this key appointee, in addition to other senior appointments across the School, will be challenging in the current external financial and economic environment. It will be the responsibility of the THI Board to ensure parity for the various THI stakeholders.

The School agrees that, in the context of the development of THI, the current School structure, together with the Faculty governance structure, should be modified to allow for effective decision making across the School. We appreciate that the radical restructuring of the Faculty as recommended in the report is beyond the scope of the School but we welcome the Reviewers' comments in this regard. It is essential that the School remains competitive at a

national and international level and increased administrative and financial efficiency and flexibility is required to allow for the delivery of School objectives.

While the Reviewers raise concerns regarding the fit of the allied healthcare professions within the School of Medicine, the School is of the view that these disciplines form an essential part of the School and should remain as an integral part of its structure. As all six undergraduate disciplines (medicine, physiotherapy, radiation therapy, occupational therapy, human health and disease and human nutrition and dietetics) will be conveyed within THI structure, THI will be uniquely placed to become one of the largest providers of highly trained allied healthcare professionals in the State. This provides increased opportunities for inter-disciplinary education and learning through focussed modular integration and interdisciplinary approaches to research, learning, innovation and service delivery to solve healthcare challenges of the future.

The Reviewers highlight the reliance on the goodwill and dedication of staff for the delivery of teaching and research, which the School recognises. This needs to be addressed in terms of the sustainability of such arrangements and the vulnerability to competing demands, particularly in clinical areas. Unless new models are developed to provide for protected time, the School will face ongoing challenges in the recruitment and retention of high class staff, which are required to ensure we remain competitive. As part of the implementation plan that will follow the review process, consideration will be given to the development of specific models for allocating resources to free up protected time for key clinicians thereby allowing proper commitment to research and/or education for fixed terms subject to review. This will require the development of innovative funding streams.

Trinity Translational Medicine Institute and Institute of Population Health

The School welcomes the strong support for the establishment of the Trinity Translational Medicine Institute (TTMI) as a “hard” institute on the St James’s Hospital site and for the plan for the Institute of Population Health (IPH). It is essential that these are progressed as a matter of priority in 2013.

Implementation of more robust feedback and evaluation systems for all undergraduate teaching and requirement of more robust data on completion rates

The School recognises the need for increased focus on quality assurance and improvement through student and staff evaluation of the undergraduate teaching programmes and is committed to introducing new educational metrics and tools to assess competency.

The School acknowledges that more detailed information on completion rates, particularly for postgraduate courses, is required. The need to have better quality data in terms of completion rates for postgraduate research students and also to provide percentage pass rates for taught

postgraduate courses is recognised. Unfortunately, this information is not readily available in the School or centrally in the University. It is hoped that the implementation of the new student information system across the College may address these concerns over time. In the interim, the School will investigate how improvements can be made in this area.

Strengthening of the School's communication strategy and its recognition and reward systems for excellence in teaching, including routes to promotion and career development

Given that the School is spread across several sites, the importance of communication is well recognised. Communication within the School community is through various means, such as committees and fora, strategic planning events are held on a regular basis, and regular updates are provided through the School website, email and ebulletins. AV links are available on teaching sites and meetings are held on a regular basis across the various sites. However, the School recognises that improvements could be made and the development of a more comprehensive School communications strategy will be considered.

The School supports the recommendation that teaching excellence should be better linked to career promotion. Currently, academic career progression remains intrinsically linked to the research output and School leadership is cognisant of the tensions which may arise as a result of teaching and research commitments, thus teaching quality is emphasised and, where present, acknowledged. Given external pressures, a properly-considered staff retention policy (which includes recognition of increased teaching load and the difficulties of maintaining excellent standards with less resources and staff) is urgently required.

Investment in modern teaching supports such as the virtual learning environment, on-line programme delivery, and computerised assessments

The School agrees with the Reviewers on the need for investment in modern teaching supports and is committed to developing this over time within the constraints of resources available. As part of the College-wide plan, it is hoped that the new student information system will interface with a new virtual learning environment (VLE)/e-learning platform (Blackboard 9) which will allow for group-focused communication between staff and students and can be used as a collaborative tool using discussion boards, blogging, journals and wikis. A wide range of e-learning resources from the School are ready to go in to VLE, with some disciplines such as Ethics and Jurisprudence and Radiation Therapy quite advanced. However, the rate of progress is outside the control of the School as the VLE is being implemented at College level. Further upgrades may be required in order to meet the needs of the School.

More uniform application of the IUA recommendations for structured PhDs is recommended along with interventions to strengthen the sense of community among the PhD students across the various campuses

The School welcomes and agrees with recommendations in relation to PhD programmes. Several of these issues had already been recognised by the School and, in conjunction with University's Graduate Studies Department, we are working on implementing these recommendations.

In line with international best practice, there is a need to establish a Doctoral panel for each PhD student within the School. The Committee would formally meet with the student on a 6 monthly basis to advise on the progress of the candidate.

The need to introduce more taught modules in PhD training is recognised by the School. The publication of the School's Book of Modules will enable postgraduate research students to select various modules which will be of benefit to them in their doctoral training. It is anticipated that these modules would be selected by the students in conjunction with their supervisors. The School is also aware that it must introduce a small number of other modules on transferable skills or formalise arrangements already in place.

The School already hosts an annual Postgraduate Research day which provides an avenue for postgraduate students to communicate and share ideas with other postgraduates within the School, and also gives them a chance to present their work, ideas and information. The possibility of using this as a framework to encourage more interaction and sharing will be explored.

Therapies Reviews:

We note that separate review processes took place in 2012 for the Disciplines of Radiation Therapy, Physiotherapy and Occupational Therapy. These review reports and responses are included in Section 3 of this document. Comments on key issues raised are provided below.

Radiation Therapy:

School of Medicine should consider an active support programme for developing research in Radiation Therapy

The areas of cancer and radiation biology, radiation therapy practice and health services research give opportunity for new and novel research approaches. The Discipline of Radiation Therapy can make a positive contribution to the overall research profile of the School of Medicine focusing on these areas.

The development of a formal departmental research strategy and a formalised research leadership structure is recommended

Since the review, the Discipline has carefully considered the comments and advice of the reviewers and has since established its own research group, Applied Radiation Therapy Trinity Research Group (ARTT). ARTT has three main research areas:

1. Radiobiology and Molecular Oncology, led by Prof. Laure Marignol
2. Radiation Therapy Practice , led by Prof. Michelle Leech
3. Health Services Research, led by Prof. Anita O'Donovan

Since the review, funding totalling €500,000 has been secured for projects led by Prof. Laure Marignol, Adjunct Professor Mary Coffey and Prof. Siobhan Ni Chuinneagain. Prof. Anita O'Donovan is collaborating with the University of Rochester on comprehensive geriatric assessment in oncology and Prof. Michelle Leech is collaborating with colleagues in the University of Maryland on her research in MRI-based treatment planning for prostate radiation therapy.

Funding available to students on postgraduate taught programmes – this is a potential threat to the postgraduate programme and requires addressing at the School/College level

The taught MSc course in Advanced Radiotherapy Practice commenced in Sept 2012 using a blended learning approach. Staff are interested in using the College VLE, Blackboard, to its full potential to support our part-time students, who are in full-time employment.

The current economic circumstances and the lack of employer funding for Radiation Therapy staff who are in full-time employment wishing to undertake such postgraduate courses will be an ongoing issue that will need to be considered.

Nurture the relationship between the School of Medicine and Radiation Therapy

The Head of Radiation Therapy is now included on the School of Medicine Executive Committee, which ensures consultation on and involvement in strategic decision making with the School.

The Discipline was delighted with the comments of the Reviewers with respect to their teaching methodology, integrated approach and future vision. Future liaison, particularly with the Anatomy Discipline, is seen as dynamic and innovative.

With respect to research in teaching methodology and learning, stronger links with the undergraduate curriculum committee of the School of Medicine will enable a greater sharing of experience to the mutual benefit of all. Since the review, Prof Michelle Leech has been invited to join this Committee.

As the national education programme for RTs, the Discipline is keen to introduce the concept of peer review and evaluation of content and teaching methodology and would be very happy to take the lead in this area from the School of Medicine perspective. This would link to early career mentoring and supervision and the establishment of formal mentoring committees.

Since the review, the Discipline proposal for a one year degree programme for diploma graduates of the Singapore Institute of Technology (SIT) has been approved by the University Council and students will commence on this programme in September 2013. This will have a positive impact on the Discipline's contribution to the College's internationalisation Strategy and also paves the way for research collaboration between the Radiation Therapy Disciplines in both institutions.

Physiotherapy:

Develop research opportunities by encouraging all research active staff to seek external grant support and collaborating with colleagues in the School of Medicine to produce multidisciplinary grant submissions. Exploring opportunities for multidisciplinary, clinical translational research by enhancing relationships between Physiotherapy and other Disciplines in the School

The suggestion that research active staff need support is welcomed and must be considered within the financially constrained environment in which the School and Discipline operates. There is an issue with senior staff having considerable administrative commitments and they would benefit from postdoctoral support to support ongoing work and to build on research developments. This is being progressed by the School and one postdoctoral position has been filled using funding from the one year programme in Singapore.

The necessity to link with cognate Disciplines for building research and success in competitive grant applications is acknowledged and close links have been developed with other Disciplines within the School including Physiology, Clinical Medicine and Surgery and with other Schools such as Business.

Development of postgraduate research and the lack of a formal policy in the School/College requiring dual supervision of postgraduate research (PGR) students

The recommendation to increase critical mass in research areas would have a considerable impact on the amount of PGR supervision, but will be difficult without key academic appointments. It is difficult to increase the number of PGR students without an increase in supervisory capacity. In addition, it must be noted that the same staff are also involved in the new one year programme with the Singapore Institute of Technology so it is difficult to see any real increase in postgraduate research in the next few years as these staff are currently working to maximum capacity.

There is no current requirement within the College/School to have dual supervision of PGR students. If such a policy was introduced, the capacity of the School and the Discipline to meet these requirements with the staff numbers available would need to be considered.

The School of Medicine and/or Faculty of Health Sciences need to consider developing capacity to provide adequate technical support across its component units

It is acknowledged that there is a need for technical support particularly with the increase in equipment purchased for the exercise and movement analysis laboratories. Sharing technical support with similar laboratories across the School needs to be considered.

The Reviewers strongly advise to organise the evaluation of teaching staff at the level of the College and to provide a transparent system of feedback to the students

The School will look at recommendations for improving the evaluation and rewarding of teaching staff as part of the overall School implementation plan.

With the timing of clinical placements in the past it was often difficult for students in physiotherapy to attend the curriculum meetings. A formal meeting is held each term with Physiotherapy year representatives, the Head of Discipline, Practice Education Co-ordinator and at least one other member of academic staff for discussions on all modules.

Occupational Therapy:

Evaluation of the location of the Discipline within the School of Medicine

The School is of the view that Occupational Therapy should remain within the School of Medicine and in order to actively involve the Discipline in the decision making processes of the School, the Head of Discipline became a member of the School Executive in 2012.

Grow a collaborative research culture and linking to occupational science as a foundation for all unit research

The current focus of many staff in the Discipline is the completion of their PhDs related to the areas of their clinical experience. It is anticipated that when these have been attained, this will facilitate more integration and collaborative research within the Discipline. Research symposia have also been arranged to further facilitate integration and to market the range and level of research within the Discipline.

Occupational Therapy covers a wide spectrum of the health conditions across all ages and staff are involved in research linking to their clinical expertise. The individualistic nature of this research should be viewed positively, as it reflects the diversity of professional practice providing greater potential to attract postgraduate research students.

The School agrees that a clear research strategy needs to be developed for the Discipline and this will be developed during 2013 linking with the School of Medicine research strategy. Consideration will be given to including Occupational Science as a strand in this strategy.

In order for (the Discipline) to go to the next level, additional resources are needed, e.g. the addition of the planned senior professor

The School supports the appointment of a Professor in Occupational Therapy and discussions are ongoing with College in this regard.

Suggestion to immediately put a moratorium on the Singapore programme until adequate staffing, space and planning have been developed. As it currently stands, the Reviewers are concerned that the programme and Trinity College is being set up for significant difficulties

It appears that the external reviewers did not realise the significance of the Singapore project and the School made the decision to progress with this programme from 2012/2013. Thirty-two students were admitted to the programme in September 2012, which is primarily delivered in Nanyang Polytechnic, Singapore. Part of the programme involves an overseas immersion programme which involves the Singaporean students spending six weeks in TCD in Hilary term. The first cohort of students came to Dublin in January 2013 during which time they visited a range of occupational therapy services in the greater Dublin area. The accreditation process for this course has just finished and the course has been successfully accredited by the Association of Occupational Therapists of Ireland until 2018.

The School believes that this is a considerable development for the Discipline, which will bring many opportunities for advancement and will increase its national and international profile. Considerable time has been devoted to this project since October 2010 with respect to all elements of the programme including curriculum design, staffing and space requirements and the first year of the programme has been a success and will continue. The next intake of students will be September 2013.

Conclusions:

The School of Medicine is very appreciative of the time and attention given by the School of Medicine Review Team and the Therapy Disciplines Review Teams and welcomes their comments as constructive and relevant to the strategic development of our future. The School intends to work with the Dean of the Faculty of Health Sciences, other appropriate College Officers, and with the various Heads of Discipline to address the recommendations arising from the Review reports and will prepare a detailed Implementation Plan outlining the timeframe for implementation.

5.2 RESPONSE FROM THE FACULTY DEAN

Introduction

The Dean would like to thank the international experts who undertook the review of the School of Medicine and those who reviewed the three Therapy Disciplines for their time and effort. They have highlighted many issues for careful consideration but have endorsed the effort which the staff continue to make to provide a world class teaching and research environment for students.

Recommendations

Medicine

Strong support by the Reviewers for the concept of the academic medical centre (THI) involving the network of hospitals and the School of Medicine, with the appointment of a clinical academic as Head of School, and Chief Officer (with academic and executive leadership roles) and alignment of the research strategy of the School with the areas of clinical expertise in the network. In establishing THI, the Reviewers recommend that the academic aspirations and interests of both hospitals are recognised and are afforded parity of esteem and suggest forceful advocacy aimed at obtaining the resources required for protected academic time for HSE funded clinicians and additional clinical academic posts.

The Dean welcomes the Reviewers' support for Trinity Health Ireland and agrees that the choice of an appropriately qualified Chief Officer is of critical importance. The Dean agrees that the school must continue to consider how it should restructure its internal management processes to take account of the roll out of THI.

The Dean also agrees that the Irish medical education system depends on the goodwill of clinical academic staff, academic consultants and participating hospitals. These ideas have influenced the development of the Institute of Preventive Health which fosters inter-disciplinary research within the Faculty and strong links with the Department of Health and of the Trinity Translational Medicine Institute and Clinical Research Facility at St. James' Hospital, both now examples of important vehicles for including hospital as well as School and Faculty interests in the implementation of research strategies. As THI continues its development the Dean is committed to working with the School to encourage a holistic concept of healthcare and further fostering inter-disciplinary education and research that includes the aspirations and interests of the partner hospitals, of disciplines such as Occupational Therapy, Radiation Therapy, Human Nutrition and Dietetics, and Physiotherapy and of schools and disciplines beyond Medicine.

Implementation of more robust feedback and evaluation systems for all undergraduate teaching and requirement of more robust data on completion rates.

The Dean and the School agree with the Reviewers that continued refinement in the use of data to support evaluation is critical. The Dean is encouraging the School to fully utilize Council policies for annual evaluation of postgraduate courses and modules and to work on making the best use of data emerging from College's evaluation of undergraduate courses. The College proposal for a more streamlined process for the management of quality assurance will offer additional tools to advance meeting this recommendation.

Strengthening of the School's communication strategy and its recognition and reward systems for excellence in teaching, including routes to promotion and career development.

In the current economic climate there are challenges for creating mechanisms for rewarding excellence in teaching but not for its recognition. Indeed teaching is recognized by the school as the foundation of academic excellence in the health sciences. As resources permit the Dean will continue to explore recognition processes and enhancement of communication strategies. The Dean acknowledges the continuing efforts the School makes in managing and improving communications across its three principal sites.

Investment in modern teaching supports such as the virtual learning environment, on-line programme delivery, and computerised assessments.

The Dean commends the school for increasing its use of VLEs and accessing online resources has become a significant part of the delivery of programmes at undergraduate and postgraduate. Greater use of such resources is a key priority for College and all the Schools of the Faculty and this recommendation will encourage further expansion of the use of VLE and online resources.

More uniform application of the IUA recommendations for structured PhDs is recommended along with interventions to strengthen the sense of community among the PhD students especially across the varied campuses.

The Dean endorses the school's commitment to the establishment of supervisory panels, and the development of a sense of community among students along with greater use of taught modules within an increasingly structured PhD experience.

Therapy Reviews

Radiation Therapy

School of Medicine should consider an active support programme for developing research in Radiation Therapy.

The Dean agrees with this recommendation and endorses the efforts of the school to support research in radiation therapy.

The development of a formal departmental research strategy and a formalised research leadership structure is recommended.

The Dean congratulates the discipline on the progress it has made in developing such a research strategy and in securing significant research funding. The recent successful development of research collaborations with the Universities of Rochester and Maryland are examples of the formalized research leadership envisioned by the reviewers.

Funding available to students on postgraduate taught programmes – this is a potential threat to the postgraduate programme and requires addressing at the School/College level.

The Dean agrees that in the current fiscal climate the dependence of the discipline on employers as the principal funders of courses poses problems for the discipline. The Dean supports the increasing use by radiation therapy of blended course delivery as this will likely support increased part-time enrolment, a student group less dependent on employer support.

Nurture the relationship between the School of Medicine and Radiation Therapy.

The Dean welcomes, consistent with the recommendation, the growing integration of the discipline within school governance structures and its co-operation with other disciplines within the school and faculty. The discipline's contribution to the College's Global Relations strategy by way of the Singapore Institute of Technology initiative has great potential to enhance the reputation of the discipline and to further establish its role within the School.

Physiotherapy

All research active staff need to be encouraged to seek external grant support, and collaborating with colleagues in the School of Medicine to produce multidisciplinary grant submissions would be a good way of improving the chances of success.

The Dean endorses the school's efforts to address the administrative workload on senior staff and to find resources for needed post-doctoral staff to support pursuit of external grants. The Dean also welcomes the close links being developed by physiotherapy within the School including with Physiology, Clinical Medicine and Surgery and with other Schools such as Business

No formal policy in the School/College requiring dual supervision of PGR students.

The Dean acknowledges the reviewers' comments in relation to dual supervision, and while the College has no formal policy in relation to this, dual supervision is an established practice within many of the schools in the Faculty of Health Sciences, and indeed across other Faculties within the College. The Dean encourages the discipline to further engage with other disciplines and begin use of dual supervision.

No formal College system for the evaluation of teaching staff in the Discipline is available.

The Dean and School will encourage physiotherapy to continue with efforts to utilize the College's PMDS performance management system to address formal evaluation of teaching staff.

The School of Medicine and/or Faculty of Health Sciences need to consider developing capacity to provide adequate technical support across its component units.

There are a number of opportunities for collaboration with units within the School of Medicine and with other schools and disciplines. Necessarily this does mean a somewhat complex structure and a need to examine periodically how resources and supports are being allocated. The Dean encourages the school to consider how best to utilize existing resources and to consider seeking external funding where possible.

Trinity College has major opportunities in multidisciplinary, clinical translational research which would be enhanced by a close liaison between physiotherapy and some of the medical/surgical sections of the School of Medicine. The Discipline should also strengthen ties with the School of Business regarding Health Policy and Management.

The Dean encourages inter-disciplinary research and collaboration in all schools of the Faculty and welcomes this recommendation. Physiotherapy will be asked, with School support, to develop a plan to advance such collaborations.

Occupational Therapy

Research priority as stated in the School of Medicine strategic plan doesn't include and embrace topics that are core subjects in occupational therapy and occupational science. Without change in research culture and support for development, specifically support and mentoring in grant writing and application, the discipline may be challenged to develop to its full potential.

This issue is addressed further below. However, now that most staff are completing their PhDs, the Dean and School agree with the reviewers that the next step is to support grant-writing and application.

In order for (the Discipline) to go to the next level, additional resources are needed such as grant writing mentorship, the addition of the planned senior professor, development of a research plan for the discipline, elaboration of the School of Medicine's research priorities to include occupational therapy, and dissemination of the plan to potential research students and current students. We recommend that emphasis or at least a linking to occupational science as a foundation for all unit research be instituted

The discipline is in an early phase of its development as an academic discipline. Many of the staff are completing doctorates. There are active searches for senior staff that will help address the reviewers' concerns. The Dean also welcomes the school's commitment to integrate Occupational Therapy's research within the school's plans and research priorities.

It is strongly suggested to immediately put a moratorium on the Singapore programme until adequate staffing; space and planning have been developed. As it currently stands, the Reviewers are concerned that the programme and Trinity College is being set up for significant difficulties. From the perspective of the developing discipline, strengthening the master's programme is a more urgent priority than the Singapore programme.

The Dean and School do not agree with this assessment as the Singapore Programme is a key way in which the discipline is being developed. It is recognized that success in Singapore will require further strengthening of the staffing there. A search for a senior person is underway.

A lack of cohesiveness undoubtedly contributes, in part, to the lack of stature of the department in school of medicine operations. Evaluate if placement in the School of Medicine is the best match for the unit. If it is not, move the unit. If it is, involve the discipline in the planning, decision-making and priority of the school. Regardless, the unit should better integrate with the overall school in which it is placed. The School and Discipline wish to highlight the fact that the school did commence this process but were requested not to continue it. The process can be recommended. Relationships have been built within the School of Medicine and with other schools of Trinity for this purpose. We encourage the elaboration of such collaborative supervision.

As noted this is a discipline in an early phase of its development as an academic discipline. As the reviewers note, relationships have been built within the School of Medicine and with other schools of Trinity suggesting that maintenance within the existing structures should continue. The School's response to reviewers goes further noting its efforts to increasingly integrate the discipline within its management structure. Having staff complete their PhDs will present new opportunities for collaboration and the Dean encourages further development of occupational therapy as a component discipline within the School of Medicine.

Conclusions:

The School of Medicine faces a challenging environment with budget concerns, growing external demands on clinical and other partners, the need to integrate and build multi-disciplinary relationships with allied health professional disciplines, changing approaches to PhD education, the rollout of THI and the need to complete the hiring of a leader for the School and THI. The reviewers have rightly highlighted some of those concerns.

The current School leadership and the heads of its disciplines are to be commended for their work in advancing the School despite such challenges. In the School response to the review, processes already underway are highlighted that address many of the reviewer suggestions suggesting that the School, Faculty and College are already aware of and are already addressing the issues critical to the School's advancement. As noted here the Dean is also committed to supporting many of these steps including the already approved searches for key staff and to work with the School's leadership on initiatives that will encourage excellence in research and teaching.

5.3 PROVOST'S RECOMMENDATIONS TO COUNCIL

Recommendations arising from the review of the Therapies Disciplines:

1. The School should work with each Head of Discipline for Therapies to support and facilitate the integration of research into the broader School research strategy.
2. In consultation with each Head of Discipline for Therapies, the School should identify opportunities for closer collaboration in regard to resources and support structures both within the School and with other Schools and Disciplines.

Recommendations arising from the review of the School of Medicine:

1. In relation to 'robust performance management systems', the School should consult with the Director of Human Resources on implementation of College's developing Human Resources strategy.
2. The School should review its organisational structures and management processes in consultation with the Vice-Provost/Chief Academic Officer.
3. The School should work closely with the Global Relations Office and Trinity Foundation respectively, to explore means of increasing international student intake and developing philanthropic initiatives, particularly in regard to medical alumni.
4. The School should consult with the Dean of Research on the development of a Trinity Translational Medical Institute with a view to conducting a dedicated external review by international experts on its future feasibility.
5. The School should work with the Dean of Graduate Studies to further develop structured PhD programmes particularly in regard to provision of modules in the early years of a PhD programme. In addition, the School should seek to create a greater sense of community – cross campus - amongst the medical PhD student body.