

REPORT OF THE RESEARCH QUALITY REVIEW

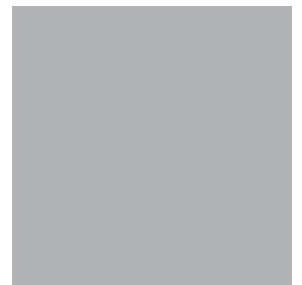
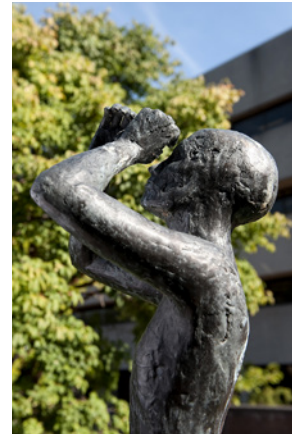
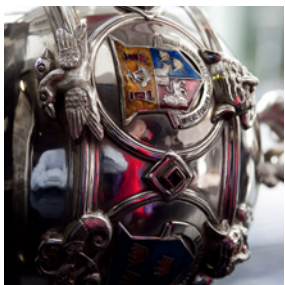
UNIVERSITY COLLEGE CORK 2015

PANEL A REPORT
PATHOLOGY



UCC

University College Cork, Ireland
Coláiste na hOllscoile Corcaigh



Panel A Report

Pathology

Units in Panel A

Medical Education Unit
Medicine
Pathology
Psychiatry
Surgery

Panel A Members

Chair: **Professor Carmine M. Pariante**,
Kings College London
DVC for Medical Education: **Professor Jan Illing**,
Durham University
DVC for Medicine: **Dr Deirdre Lane**,
University of Birmingham
DVC for Pathology: **Professor Joanne Martin**,
Queen Mary University of London
DVC for Psychiatry: **Professor Ania Korszun**,
Queen Mary University of London
DVC for Surgery: **Dr Deirdre Lane**,
University of Birmingham

Introduction

The Department of Pathology sits within Cork University Hospital, with the academic team comprising expertise in Genetics, Medical Microbiology and Molecular Immunology. The Department has four staff considered in this review, one of who is finishing their postgraduate study, but whose post comes to an end within the next month, with two other full time posts and an acting Head of Department who is a clinical academic with a part-time academic commitment. The Department is in a period of change, with the replacement of a Professorial appointment at the recruitment stage, and the imminent arrival of a 0.27WTE clinical academic post, subject to appropriate clinical cover arrangements.

The Department is housed across disparate poor quality estate, shares some facilities for immunology with Medicine but does not have access to some key equipment.

It has an active postgraduate teaching programme and funding that supports the research programme.

The Department has a very heavy teaching load, across undergraduate medical and dental programmes, biomedical sciences, forensic medicine, genetics and microbiology, with some highly research active members having 150+ hours of contact time.

RAI 1 – Selected published output

All 20 submitted papers were reviewed by independent remote reviewers. Seven outputs were rated excellent, six were 'very good', four were 'good', two were 'fair' and one was 'poor', with 65% of papers rated 'very good' or above, and 85% 'good' or above. The returns covered a very wide range of subject matter.

The selected published output of the Department has been demonstrated to be of a very good standard.

RAI 2 – Total published output

The total published output of two researchers was considered 'very good', one was considered 'good' and one was considered 'fair'.

The total published output of the Department has been demonstrated to be of a very good standard.

RAI 3 – Peer esteem

This area was hard to achieve a consensus score since the peer esteem activity of two researchers was considered 'very good', one was considered 'good' and one was considered 'fair', however, overall the Panel felt that the Department was very good.

The peer esteem activity of the Department has been demonstrated to be of a very good standard.

RAI 4 – Research-related activity

There is good evidence of presentations and participation at local and international conferences. Three members have a significant portfolio of patient and



public facing activity, including work with schools. There are several multidisciplinary research collaborations across the University, including Microbiology, Medicine and Histopathology.

The research-related activity of the Department has been demonstrated to be of a very good standard.

RAI 5 – Postgraduate research education

Although the Department is relatively small it has several postgraduate students associated with two Department staff, and demonstrates a high standard of educational supervision also evidenced by the students' high levels of success. Five students have graduated within the assessment period, and four more are in progress. In addition, two members of the Department supervise doctoral students in other Departments (Medicine and Microbiology).

The postgraduate research education of the Department has been demonstrated to be of a good standard.

RAI 6 – Research income

The level of funding is uneven across the Department, with good levels associated with the microbiology and immunology, but patchy funding in the smaller groups. In a climate of decreasing funding, the group has raised approximately 1 million euros funding over the assessment period.

The research income of the Department has been demonstrated to be of a very good standard.

Areas of good practice

- Excellent multidisciplinary research collaborations were in place.
- A good collaborative laboratory culture between Medicine and the Brint group existed, making very good use of facilities.
- Novel and important areas of research.
- Strong focused areas of study were present in microbiological genomics and intestinal immunology. Clinically focused areas of human genetic research relevant to the local community.

- Good results were achieved in a period of uncertain staffing and very high teaching levels.

Recommendations for future development

- This unit has achieved well under difficult circumstances. The balance of teaching and research in a small Department is difficult to maintain. The teaching and training commitment of several of those submitted is evident from the training courses and qualifications obtained, the very high workload and the number of modules delivered and assessed. There should be investment to spread this load and enable the academic staff to concentrate more time on research.
- The replacement lecturer post is a priority, and the research area should align to one of the existing areas to support development of critical mass.
- There are few longer term international collaborations outside the area of microbiological genomics, and the investigators may consider how to develop these broader networks.
- The College should refurbish the Pathology Department, to create a safe working environment that is fit for purpose.
- The College should provide confocal microscopy and flow cytometry facilities in the Department, and technical support for the category 3 unit.

Concluding statement

This is a relatively small unit producing some excellent work, in three focused areas, but with disparate research areas and limited funding.

The research activity of the Department has been demonstrated to be of a very good standard in terms of originality, significance and rigour comparable with such work internationally.



Section B: Outline of RQR 2015 Process

The following information outlining the structure of the review process is abridged from the RQR Guidelines 2014.

Review Structure

1. Fifteen Peer Review Panels will be appointed, based on disciplinary clusters. Peer review teams may vary in size according to the size and complexity of the cluster of academic units and disciplines within the cluster.
2. Peer Review Panels will receive material in advance. The majority of reviewers will work remotely. Chairs will visit the University twice: before the exercise for briefing and to ensure consistency of approach and, together with the disciplinary vice chairs, after the remote review of submissions has taken place.
3. Site visits to include:
 - First site visit (by Chairs)
 - Information and briefing meetings between Panel Chairs and members of the Steering Committee.
 - Briefings with Colleges and RICUs on prevailing research and graduate education conditions.
 - Second site visit (by Chairs and Disciplinary Vice Chairs)
 - Presentation from academic units on research activity.
 - Meetings with staff, researchers and postgraduate research students.
 - Meetings with relevant Officers of the University.
 - Visit to facilities of units.
 - Consideration of the reports of the remote reviewers.
 - Agreement on results.
 - Drafting of report according to guidelines and criteria for assessment.

Criteria for Assessment

Research performance will be evaluated, relative to international disciplinary norms, under the following headings:

- a. Selected published output
- b. Total published output
- c. Peer esteem
- d. Research-related activities
- e. Postgraduate research environment
- f. Research income

Definitions

For the purposes of the review the following definitions apply:

1. **Assessment Period:** the period from 1 January 2008 to 31 December 2014. The research described in submissions from academic units and research centres/institutes, including data about research funding and the textual commentary, must relate to this period.
2. **Census Date:** the date determining the affiliation of academic and research staff to a particular academic unit/research centre/institute. All staff should be submitted by the academic unit/research centre/institute that employs them on this date, regardless of previous

or forthcoming changes in their employment status. Note that staff can be associated with an academic unit and a RICU, but will only submit and be reviewed once and the outputs incorporated into the academic unit and the RICU. A staff census will be undertaken during the present academic year on 31 May 2014 to enable planning. An update to the census will be undertaken on 31 October 2014, to account for all staff hired after May 2014 and who will be in post at the time of the review, to provide the final list for the review.

3. **Publication Period:** the period during which research outputs must be placed in the public domain (or in the case of confidential outputs, lodged with the sponsor) if they are to qualify for inclusion in the assessment. The publication period runs from 1 January 2008 to 31 December 2014.

4. **Research:** this definition was approved at the Academic Council meeting of 7 March 2008 and remains unchanged:

'Research' for the purpose of the review is to be understood as original investigation undertaken in order to gain knowledge and understanding. It includes work of direct relevance to the needs of commerce, industry, and to the public and voluntary sectors; scholarship*; the invention and generation of ideas, images, performances, artefacts including design, where these lead to new or substantially improved insights; and the use of existing knowledge in experimental development to produce new or substantially improved materials, devices, products and processes, including design and construction. It excludes routine testing and routine analysis of materials, components and processes such as for the maintenance of national standards, as distinct from the development of new analytical techniques. It also excludes the development of teaching materials that do not embody original research.

*Scholarship is defined as the creation, development and maintenance of the intellectual infrastructure of subjects and disciplines, in forms such as dictionaries, scholarly editions, catalogues and contributions to major research databases.

5. **Consultancy:** income and research outputs arising from consultancy contracts should normally be excluded, since consultancy is usually concerned with applying existing knowledge. However, they may be included if the work undertaken or published as a result meets the definition of research, irrespective of the nature of the contract or invoicing arrangement.

6. **Pedagogical Research:** is included in the scope of the RQR and includes research which enhances the theoretical and/or conceptual understanding of:

- teaching and learning processes in higher education
- teacher and learner experiences in higher education
- the environment or contexts in which teaching and learning in higher education take place
- teaching and learning outcomes in higher education
- the relationships between these processes, outcomes and contexts

7. **Applied and Practice-Based Research:** is included in the scope of the RQR and involves a process of systematic investigation within a specific context in order to solve an identified problem in that context. It aims to create

new or improved systems (of thought or production), products, processes, materials, devices, or services which have an impact on society through enhanced wealth-creation and quality of life.

Some characteristics of applied research and practice-based research are that:

- a) They are informed by an intellectual infrastructure of scholarly research in the field.
- b) They apply and/or transfer enhanced knowledge, methods, tools and resources from pure research and developmental research.
- c) They contribute to scholarship in the field through systematic dissemination of the results.
- d) The outcomes may be specific to the situation in which the research has been applied, although the methods/tools evolved are often transferable.

8. Creative Research: encompasses creative work and its outcomes in a range of subject areas, including creative writing, music, drama, dance, theatre, performance, live art, and film. This research may lead to published materials in a variety of forms in any of these subject areas. Such research is also diverse in the range of artistic practices on which it may draw and may extend to any cultural, geographical and historical context. It may include production or performance of creative material which itself results from a process of original creative enquiry. This work may also be collaborative in nature.

9. Research Submission: this is the totality of what will be submitted to review Panels and incorporates contextual information (the research description for each unit which sets out the extent and boundaries of the research carried out in that area), the research statement (see below) and the information required by the six Research Activity Indicators (see below).

10. Research Statement: the research statement will provide contextual information and an overview of the research activity in each unit of assessment during the review period in addition to a critical assessment of progress made since the last RQR, including a response to any recommendations made. A template and further information on submission will be provided. It will be a maximum of 5,000 words (see below for further detail).

11. Research Activity Indicators (RAIs): there are six research activity indicators. The information provided under each of the six headings, together with the research statement and the research description, constitutes the research submission.

12. Unit of Assessment: these are the units reviewed by each Panel as defined in Appendix A. It includes each of the academic units and each of the associated Research Institutes, Centres or units. NB: Not all of the associated Research Institutes, Centres or units will be reviewed separately.

Assessment Process

1. This is an expert peer review exercise. Panel members will exercise their knowledge, judgement and expertise to reach a collective view on the quality profile of research described in each submission, that is, the proportion of work in each submission that is judged to reach each of five quality levels (see below). The definition of each level relies on a conception of quality (of leading international standard) which is the absolute standard of

quality in each unit of assessment. Each submission will be assessed against absolute standards and will not be ranked against other submissions.

2. External experts nominated by the academic units will be asked to suggest who, from among their list of Panel nominations, might be suitable for the role of Chair. The final decision and approval of chairs will be made by the Steering Committee.

3. Up to five Disciplinary Vice-Chairs will be appointed, with the assistance of the Chair, for each Panel. They will be responsible for the co-ordination of the electronic evaluation of each disciplinary unit by the remote reviewers. They will attend the site visit post-evaluation.

4. Chairs and Disciplinary Vice-Chairs will be responsible for ensuring consistency across and within Panels and the application of international standards in the exercise.

5. Panel reviewers will initially evaluate RAIs 1-3 and elements of RAI 4 at an individual level. They will subsequently review overall performance of the academic unit or RICU drawing on the input of each researcher, recognising that researchers may appear in more than one.

6. First Site Visit. Panel Chairs will visit UCC for one day for briefing purposes and to ensure that the Panels work consistently as far as possible.

7. Second Site Visit. Following the remote review of the submissions, the Chairs and Disciplinary Vice-Chairs of the Panels will visit UCC to conduct site visits. They will meet with staff and officers of the unit and University and will visit the research and other facilities of each unit under review in order to form an assessment of the research environment. At the second site visit, the Chairs and Disciplinary Vice-Chairs will consider the reports from the remote reviewers in order to initiate discussion on each individual submission. A preliminary profile of the quality of outputs will be considered. A profile of the quality of research outputs and peer esteem will be compiled, along with decisions made as to scores for the research-related activities, postgraduate training, the research funding and research environment, taking on board the deliberations of the Panel at large.

8. An overall research evaluation (ORE) will be awarded by the Panel to each unit. This will be achieved through a process of consideration of all scores in the six RAIs along with consideration by the Panel of the Research Statement and other contextual information. The results for the six RAIs will also be produced for each unit, providing anonymous percentiles for RAIs 1, 2 and 3, along with results for the unit in RAIs 4, 5 and 6. The Panel will finally confirm that, in its expert judgement, the overall recommended score is an accurate and appropriate reflection of the research activity in each submission, and that its assessment has taken account of all components of the submission. Further guidance will be provided to Chairs of Panels at the first site visit.

9. Descriptive and evaluative statements. Panels will provide a descriptive statement of their view of the overall quality of research activity for each academic unit. Panels are also asked, within this statement, to comment on the totality of research activity and performance in the context of the research environment in which the unit is working and to make recommendations for improvement.

Research Excellence

Panels recognise the diverse range of disciplines represented by the units of assessment assigned to them. Set out below are the broad parameters for the assessment of the quality of research for each of the six Research Activity Indicators within which individual Panels may exercise a degree of variation. The quality levels refer to quality standards of scholarship that are the norm within the international academic community.

- Level 5** Quality that is of leading international standard.
The research work or activity will be excellent, displaying a very high level of originality, significance to the discipline and rigour; it will be innovative and potentially agenda-setting in research and/or policy fields
- Level 4** Quality that is of very good standard in terms of originality, significance and rigour comparable with such work internationally.
The research work or activity has had or is likely to have a significant impact on research and/or policy agendas
- Level 3** Quality that demonstrates significance to the discipline and rigour to a good standard.
The research work has had or is likely to have a recognised impact on research and/or policy agendas
- Level 2** Quality that demonstrates significance to the discipline and rigour to a fair standard.
The research work or activity has only had or is likely to have a marginal impact upon existing paradigms and agendas within the discipline.
- Level 1** Quality that falls below the adequate standard of recognised work within the discipline.
The research work or activity is poor and has had no impact nor is it likely to have an impact upon existing paradigms and agendas within the discipline.

Because of the differences which exist between the six RAIs, appropriate criteria will be employed in each one:

- RAI 1 will be evaluated against the criteria of originality, significance and rigour.
RAI 2 and 3 will be evaluated against the criteria of extent, diversity and quality.
RAI 4 and 5 will be evaluated against the criteria of international disciplinary norms.
RAI 6 will be evaluated against the criteria of funding levels for the specific unit and cognate disciplines available to researchers in Ireland.

Definitions of Research Activity Indicators (RAI)

Research Activity Indicator 1 (RAI 1): Selected Published Output

Panels will be required to rate each of the five selected research outputs for each Category A and B researcher. Each publication will be rated by two Reviewers. The overall quality profile will be finalised by the Panel.

Research Activity Indicator 2 (RAI 2): Total Published Output

Two Panel members will be required to allocate an individual Category A or Category B researcher's total research output in the period, identified on IRIS/CORA to one of five quality categories.

Research Activity Indicator 3 (RAI 3): Peer Esteem

The purpose of this metric is to capture the overall scholarly standing of Category A and Category B researchers within the unit, based on information presented in their IRIS profile. Evidence of peer esteem, across the career as a whole, includes publication output, Fellowships, Honours, Invited Plenary Presentations at significant disciplinary conferences, service on appointment Panels at other institutions, external examining, translation of works, refereeing/editing of journals etc., as well as significant research activity which occurred before the review period began (e.g. widely cited publications, international prizes awarded, etc.). The rating given to an individual should reflect the level of the individual's achievements across his or her research career as a whole. The Panel will determine the quality profile for each individual researcher. The overall quality profile will be finalised by the Panel.

Research Activity Indicator 4 (RAI 4): Research-related Activities

For the purposes of the RQR 'research-related activity' is intended to capture activity within and beyond the unit by individual or groups of researchers in the unit. This includes seminar series, research-focused public engagement exercises, specialist training provision, collaboration, research mentoring, outreach activities, support for scholarly institutions, evidence of research-led teaching at all levels, etc. The evidence for this will be collated from individual's IRIS profiles, and the contextual information supplied by the unit.

Each member of the Panel is asked to give a single quality level for the collective research-related activities of the unit based on their professional judgement.

The modal (most frequently occurring) rating across reviewers will be taken as the research-related activity score. [The higher rating will be preferred where the distribution of ratings is multimodal.]

Research Activity Indicator 5 (RAI 5): Postgraduate Research Education

Panel members are asked to each give a single quality level for the collective activities related to postgraduate training. This rating should reflect the professional judgement of the peer reviewers concerning the quality level descriptors provided, taking into account the number of students studying for research degrees, culture of support (i.e. arrangements for supervision), and research training environment and opportunities available for research students within the unit under review. The evidence considered will include a statement on postgraduate research submitted by the unit, information from published unit web-pages, numerical data from university offices regarding completion rates, completion times, etc. and process used by the unit to ensure that these are satisfactory.

Each member of the Panel is asked to give a single quality level for the collective research-related activities of the unit based on their professional judgement. The modal (most frequently occurring) rating across reviewers will be taken as the research-related activity score. [The higher rating will be preferred where the distribution of ratings is multimodal.]

Research Activity Indicator 6 (RAI 6): Research Income

Each member of the Panel is asked to give a single quality level for the collective research-related income of the unit based on their professional judgement of the research area, taking into account the Research Landscape

relevant to researchers in Ireland as described in the briefing documents provided. The modal (most frequently occurring) rating across reviewers will be taken as the research-related activity score. [The higher rating will be preferred where the distribution of ratings is multimodal.]

List of Panels & Units

Panel A

School of Medicine, incorporating:

- Department of Medicine (inc Radiology)
- Department of Surgery (inc Anaesthesia)
- Department of Pathology (inc Med Microbiology)
- Department of Psychiatry
- Medical Education Unit

Panel B

School of Medicine, incorporating:

- Centre for Gerontology & Rehabilitation
 - Department of Epidemiology & Public Health
 - Department of General Practice
 - Department of Paediatrics & Child Health
 - Department of Obstetrics & Gynaecology
- Irish Centre for Foetal and Neonatal Translational Research (INFANT)

Panel C

School of Clinical Therapies, incorporating:

- Department of Occupational Science & Occupational Therapy
 - Department of Speech & Hearing Sciences
- University Dental School & Hospital
School of Nursing & Midwifery
School of Pharmacy
Oral Health Services Research Centre (OHSRC)

Panel D

School of Medicine, incorporating:

- Department of Anatomy & Neuroscience
 - Department of Pharmacology & Therapeutics
 - Department of Physiology
- School of Food & Nutritional Sciences
Department of Microbiology
Department of Biochemistry

Panel E

Department of Chemistry

School of Biological, Earth and Environmental Sciences (BEES), incorporating:

- Geology
- Plant Science
- Zoology & Ecology

Environmental Research Institute (ERI)

Analytical & Biological Chemistry Research Facility (ABCRF)

Panel F

School of Computer Science & Information Technology

School of Mathematical Sciences, incorporating:

- Mathematics
- Applied Mathematics
- Statistics

Panel G

School of Engineering, incorporating:

- Department of Civil & Environmental Engineering
 - Department of Electrical & Electronic Engineering
 - Department of Process & Chemical Engineering
- Department of Physics
Tyndall National Institute

Panel H

School of Geography & Archaeology: the Human Environment, incorporating:

- Department of Geography
 - Department of Archaeology
- Cork Centre for Architectural Education

Panel I

Department of Accounting Finance & Information Systems (BIS)

Department of Accounting Finance & Information Systems (AF)

Department of Food Business & Development

Department of Management & Marketing

School of Economics

Centre for Policy Studies

Panel J

Department of Government

School of Law

School of Sociology & Philosophy, incorporating:

- Department of Sociology
- Department of Philosophy

Study of Religions

School of Applied Social Studies

Institute for Social Science in the 21st Century (ISS21)

Panel K

School of Applied Psychology

School of Education

Panel L

School of Irish Learning, incorporating:

- Department of Modern Irish
- Department of Early & Medieval Irish
- Béaloideas/Folklore & Ethnology

Panel M

School of Languages, Literatures and Culture, incorporating:

- Department of French
 - Department of German
 - Department of Spanish, Portuguese & Latin American Studies
 - Department of Italian
- Asian Studies

Panel N

School of History, incorporating:

- Department of History
- History of Art

Department of Classics

School of English

Panel O

School of Music & Theatre, incorporating:

- Department of Music
- Drama & Theatre Studies



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