

UNIVERSITY COLLEGE CORK

NATIONAL UNIVERSITY OF IRELAND, CORK

PERIODIC REVIEW

SCHOOL OF BIOCHEMISTRY & CELL BIOLOGY

ACADEMIC YEAR 2016

April 2016

PRG MEMBERS

Name	Affiliation	
1. Ms. Katy Birkett	Student	University College Cork
2. Dr. Michael Carty	Biochemistry	NUI Galway
3. Professor Deirdre Madden	School of Law	University College Cork
4. Professor David Timson	Pharmacy & Biomolecular Sciences	University of Brighton

Introduction

A periodic review of the School of Biochemistry & Cell Biology was held on 12th – 14th April 2016. The timetable for the visit may be found at Appendix A.

The Peer Review Group (PRG), found the timetable to be very full and appropriate. The PRG felt the meetings with the two Vice-Presidents was useful but could have been conducted in a shorter length of time. The Group also felt that it would have been more beneficial to meet with the two vice-presidents separately as their remits did not necessarily overlap in this context.

The PRG requested a tour of facilities which was arranged and it provided the necessary understanding regarding laboratory space available to students. Although this was not timetabled, the PRG also asked to meet administrative staff in order to ensure that all staff of the School were included. A meeting with one member of staff was arranged at short notice for which the PRG is grateful.

The PRG queried the general practice of meeting all staff with the Head of School present. While this did not appear to raise any concerns in the context of this particular School, the PRG questioned its appropriateness as a general policy in terms of enabling the staff to speak freely.

The PRG valued the meetings with the groups of students who were drawn from different programmes at undergraduate and postgraduate levels. The Panel found the students to be very knowledgeable and articulate not only about biochemistry but also about the wider education world around them. The students were very positive in their feedback and were very good advocates for and critical friends of the school. They have a great sense of identity and belonging. Every student praised staff in terms of availability, responsiveness and support 'above and beyond' their formal role such as in giving career advice regarding CV's etc.

The PRG met a very small number of external stakeholders and felt it would have been useful to meet with more stakeholders to learn more about industry's perspective on the School's graduates.

General Observations

- The PRG judged that a great deal of time and thought had been spent in preparing for the Quality Review. The SER was very thorough and valuable; the SWOT was good although it could have been more succinctly and thematically arranged.
- The PRG felt that information regarding research funding would have been useful as this has an impact on the functioning and sustainability of this particular School through reliance on research overheads. This information was provided by the VP for Research but the PRG would have appreciated more information and specific figures in order to assess fully the impact of this funding on the overall budgetary situation of the School. The PRG would also have appreciated more details on the School's operational budget and where their income comes from as the PRG noted that the School itself did not identify reliance on research overheads as a threat in the SWOT analysis.
- The PRG noted that information regarding student feedback was inconsistent. Some programmes provided detailed information on student progression and employability but the information provided was not standardised.
- The PRG noted comments on benchmarking for the medical degree but no external benchmarking was conducted. The PRG would have appreciated more information on benchmarking of these programmes.
- Staff identity appears strong with clear enthusiasm for the discipline and very active researchers with a high international reputation. Staff mentoring is in place and there is a strong sense of teamwork apparent in the School.
- The PRG understands that the ability to hire new staff is limited but the School should consider how to maximise any new appointments such as, for example, joint appointments with other schools, which would lead to spin off research opportunities in other areas.

Academic standards

Aims and Outcomes:

- The panel is satisfied with the standard of teaching in the School and considered its programmes to be appropriately situated on the NFQ.

Strategic and curriculum planning:

- Strategic and curriculum planning is evidenced by the introduction of new programmes and pathways at undergraduate and post graduate level. However, the School seems to be under considerable pressure in terms of teaching and is probably at the limit of what it can undertake. The Teaching and Learning Committee keeps the School's offerings under review which is a positive feature.
- Service teaching is recognised as important for budgetary purposes within the school and also of huge benefit to the students in other programmes. It is important for the School to strike a strategic and workable balance in considering its commitment to

service teaching in the future. The Panel would support the School in resolving not to undertake any commitments to further service teaching unless there is a clear strategic benefit to the School, for example new staff appointments.

- The School has discussed the option of offering summer schools but the PRG urges caution in this regard as summer schools can impose a huge burden on staff. Although there are financial benefits to be gained by attracting international students, the School should not underestimate the burden imposed, most likely on junior staff who will end up delivering it. This will interfere with their research time and ultimately their career progression. Technical staff would find it a burden also, as it would interfere with the necessary work involved in fixing and maintaining lab equipment during the summer.

Student progress and attainment

- Students appear to be performing satisfactorily however it remains to be seen if and how semesterisation might affect student performance. The PRG would strongly urge the University to conduct a thorough review of semesterisation with student input not just from an operational perspective but also on how it effects the academic quality of the programmes and the student experience (for example consistency of feedback on continuous assessment).

External reference points (including external examiners' reports and requirements of PSRBs)

- Examiners reports are all very positive. The PRG noted that there may be an issue in the future with the role of regulatory bodies in terms of their statutory function to oversee the standard of undergrad and post grad education. This is particularly relevant to the Biomed programme with CORU (the Health and Social Care Professionals Council) taking over the oversight of educational standards in the near future. This will potentially impact on programme and curriculum design and the School should future proof their programmes as much as possible. The School will also need to consider how this impacts on other degree programmes which share modules with Biomedical Science.

Student Experience

Teaching and learning, including the impact of research on teaching

- The standard of teaching and learning in the School is very good. However, the staff student ratio is very low, which is a concern in terms of the School's on-going ability and commitment to deliver high quality programmes. It also has the potential to lead to higher stress levels for staff. The School does very well in managing with the resources they have but long term the PRG fears the high quality of the teaching and assessment will not be sustainable.
- The students regard BlackBoard positively and see it as a good resource although some comments were made regarding material being put up online late.
- The PRG recommends that the School should integrate some form of training in (and opportunity to practice) scientific writing for students in early undergraduate years.
- The PRG commends the School for having global researchers who contribute fully to the teaching programme. These research leaders are accessible and available to

students with the result that students appreciate that they are being taught by research leaders.

- The PRG would encourage staff to participate in teaching and learning seminars in the home discipline to disseminate best practice. This could be done, for example, by informal lunchtime discussions where staff could discuss examples of best practice from other modules that could be incorporated into their teaching.
- The laboratories are very good as they stand but the sustainability of their on-going maintenance appears largely dependent on research funding, especially as this appears to have declined in recent years. This was a matter of concern for the PRG which noted that research overheads should be spent on infrastructure otherwise 4th year projects will decay.

Assessment:

- Feedback was good in general. Students appreciated one to one feedback in most cases but this was not consistent particularly in the larger modules. The PRG urges staff to use technology to provide feedback such as online multiple choice question feedback. Students would also appreciate a more structured and systematic way of receiving feedback instead of having to request it.
- All students questioned the relatively low contribution of continuous assessment to the final mark in the majority of modules. The PRG urges the School to consider increasing the percentage weighting without necessarily introducing additional exercises. This will be an advantage to the School and students, provided the marking is fair and the standard is appropriate.
- Students also expressed concerns about the consistency of demonstrator marking. They felt that some groups received higher marks for essentially the same work. The PRG felt that the training and moderation for demonstrators was unclear and should be improved.

Impact of research.

- The PRG commends the School's commitment to research focused final year projects and supports their current plan to review this to consider a greater diversity of project types. The PRG recommend that staff should use part of an away day to discuss this collectively and come up with proposals which might include giving students more choice in relation to the area of their project.

Staff development

- The PRG was concerned that the University promotion system may negatively impact school morale and the retention of very good staff. It urges the School to think about how staff applying for promotion are supported and assisted in this process.
- The PRG commend staff for the mentoring scheme within the School. Staff spoke highly of their mentors. Administrative staff felt supports and training were available centrally but they do not always have time to avail of it.

- The PRG welcomes the university wide initiatives such as the certificate in academic practice and Lean for support staff.

Student support

- Students were of the view that the School works well, is well organised, and that staff are very responsive. This reflects on all groups of staff, technical, administrative and academic and demonstrates an ethos of student-centeredness which is highly appreciated.
- An issue was raised with the PRG in relation to difficulties encountered in relation to entry visas. This was not primarily an issue for the School but also the International Student Office of the University. The PRG recommends that the University should ensure that any new programmes are listed on a register of approved programmes for entry visas so that these difficulties do not arise in the future. The University also needs to adequately support international students (particularly non-European) in finding suitable accommodation.

Collaborative partnerships

- Overall the relationship between CIT and UCC works well. Students like being bi-located as they benefit from both libraries and different educational approaches. The only issue of concern was the alignment of the academic calendar between UCC and CIT. For example, the semester dates are different and it appears that the programme Co-ordinators do not have access to both timetables. The PRG recommends that composite timetables be provided to students at the start of each academic year.

Enhancement

- The School is very well organised from an operational perspective. Administrative staff undertake roles that in other Schools may be done by academic staff (e.g. inputting marks). This frees up academic staff time.
- There is no formal complaint structure in place where students have concerns in relation to either their supervisor or the co-ordinator of the programme. However, students in general are very positive about their experiences in the School and there is no culture of students complaining. Nonetheless the PRG suggest some form of structure be put in place that is communicated to and continuously available (e.g. through Blackboard) to students in case the need arises at some time in the future.
- Communication between the School and students is very good. This is a very cohesive unit which has a good relationship with its students. The PRG would encourage the School to extend its 1st year mentor scheme to 2nd years also. It could operate at College level as there are lots of programmes involved.
- Students are not clear whether their feedback is taken into account so the PRG recommends that the School consider how to 'close the loop' for students to assure them that action is taken in respect of concerns raised in their feedback.

Conclusions on innovation and good practice

- The PRG commends the School on the introduction of the new undergrad pathway in Biotechnology, and the M-Res as well as the new MSc in Molecular cell biology and bio innovation. It also commends the School for the inclusion of a law module taught by lawyers in Bio innovation.
- It also commends the School for the inclusion of calculus in year 1 and its continued adherence to best practice in relation to the 4th year projects. Both of these are likely to enhance graduate employability as other universities cut “difficult” topics and “expensive” project work.

Recommendations

- The PRG felt it would have been useful to see the School’s QIP and recommendations from their last review.
- The PRG supports the recommendations made by School in general.

However, the School stated its intention to diversify CK402 but the PRG was concerned that this would lead to more outcomes and fewer students. This seemed contrary to the desire to reduce the amount of “service teaching”. It recommended that the School focus on its core biochemistry quota.

- The School states that it is considering changing the project offering for Sci IV and other programmes with the aim of reducing pressure on academic staff. This might involve team projects, non-laboratory projects, portfolio projects or industrial/placement projects. The PRG was of the view that some alternative types of projects can result in more work and that this could negatively impact on student quality. In addition, forcing students to work in group projects together might not work out unless it is very well managed.
- An important issue that was also raised for discussion was in relation to Contracts for Indefinite Duration. The PRG was concerned that the budgetary situation is such that expenditure on these CIDs will be very costly for the School and will minimise the School’s potential for further expansion. The PRG urges that these costs be moved to the College which has more scope to absorb them and that although the University is to be commended for its action in relation to future CIDs, the legacy issues such as those affecting this particular School must be dealt with as a matter of urgency. The PRG also suggested that people on CIDs might be given the opportunity to teach on some relevant programmes in the School.
- The School’s own recommendations refer to the perceived need for greater participation of senior academic staff in University structures and committees. The PRG was of the view that this was a School management issue that might be dealt with by encouraging senior staff to recognise the benefit to the School of such participation. Senior staff of School have already taken leadership roles for reasonable periods in the past and such participation must also be carefully monitored in relation to the core activities of the staff.

Recommendations from the Peer Review Group:

Recommendations from the PRG to the School	
1.	Review service teaching and new programmes for their strategic benefit to the School.
2.	Explore avenues of opportunities for new staff, including joint appointments.
3.	Develop alternative Final Year Projects and consider introducing an element of choice for students.
4.	Review Continuous Assessment component and its contribution weight to modules
5.	Evaluate risk of loss of research income on teaching and maintenance of facilities
6.	Develop mentoring system of staff going for promotion.
7.	Communicate more effectively the complaint structure for students
8.	Consider introducing element of component of scientific writing into modules year 1 and 2.
9.	Demonstrators should get better guidance and support and more time to mark. Person running the practical class still has to take responsibility for those marks.
10.	Structured PhD programme, module on teaching which requires student to undertake a certain amount to pass the module
11.	School ensure no new processes are devolved to Admin staff.
12.	School should consider feeding back to students actions undertaken in light of student module surveys.
Recommendations from the PRG to the College of SEFS	
13.	College of SEFS to develop a uniform policy on payment of post graduate demonstrators.
Recommendations from the PRG to the University	
14.	University needs to develop a coherent policy for dealing with legacy CID's to prevent the risk to School budgets and protect the school.
15.	Promotion system - the university should have more frequent rounds of promotional opportunities to retain excellent staff and improve staff morale.
16.	University to consider the level of funding of SEFS and requirement of new staff to lower the very high staff ratio to deliver the high quality programmes.
17.	Consider the burden on students coming up to exam time (receiving module survey). While students supported opportunities to provide feedback, PRG recommends reconsidering the volume and timing of surveys to avoid fatigue and clashing with exams.

Appendix 1

SCHOOL OF BIOCHEMISTRY PEER REVIEW GROUP SITE VISIT TIMETABLE

In Summary

- Tuesday 12 April: The Peer Review Group (PRG) arrives at the River Lee Hotel for a briefing from the Director of the Quality Promotion Unit, followed by a meeting with the Heads of School and College.
- Wednesday 13 April: The PRG meets with school staff, students and relevant officers of UCC and stakeholders. A working private dinner is held that evening for the PRG in order to work on the report.
- Thursday 14 April: The PRG meets with the Head of School. An exit presentation is given by the PRG to all members of the School. External PRG members depart.

Tuesday 12 April 2016	
Venue: Muskerry Room, River Lee Hotel	
12.00 – 13.30	Meeting of members of the Peer Review Group. Lunch and briefing Ms. Aoife Ní Néill of Quality Promotion Unit. Group agrees final work schedule and assignment of tasks for the following day. Views are exchanged and areas to be clarified or explored are identified.
14.00 – 15.00	Private meeting of PRG for discussion. Venue: School Meeting Room, Rm 3.40 Western Gateway Building
15.00 – 16.00	Meeting Professor David Sheehan, Head of School
16.00 – 16.30	Tea/coffee and private meeting of PRG for discussion
16.30 – 17.30	Meeting with Professor Paul Ross, Head of College
19.00	Dinner for members of the Peer Review Group & staff members of School of Biochemistry and Cell Biology Dr Kellie Dean Dr Susan Joyce Dr Sinéad Kerins Dr Tom Moore Dr Cora O'Neill Professor David Sheehan Venue: The Weir Bistro, River Lee Hotel

Wednesday 13 April 2016	
Venue: School Meeting Room, 3.40 Western Gateway Building	
08.30 – 09.00	Convening of Peer Review Group
09.30 – 10.30	Meeting with staff of School of Biochemistry Venue: Room 2.26, Western Gateway Building
10.30 – 11.00	Tea/coffee and private meeting of PRG
11.30 – 12.345	Meeting with Senior Officers of the University Professor John O'Halloran, Vice President for Teaching & Learning Professor Anita Maguire, Vice President for Research & Innovation
12.15 – 12.45	Tour of facilities
13.00 – 14.00	Lunch and private meeting of PRG
14.00 – 14.25	<u>Representatives of 1st and 2nd year students</u> Ms. Treasa O'Sullivan, Medicine – year 2 Mr. Brandon Malone, BPharm – year 2 Ms. Regina Walsh, BSc Biomedical Science – year 2 Mr. Cian Hurley, BSc Genetics, year 2 Mr. Daniel Moor, BSc Biological Science – year 2 Ms Aisling O'Regan, BDS, year 2 Ms. Holly Lee Lehane, BSc Chemistry of Pharmaceutical Compounds – year 2
14.30 – 14.55	<u>Representatives of 3rd and 4th year students</u> Ms. Christina Killian, BSc Biochemistry – year 4 Mr. Stephen Power, BSc Biomed Science – year 4 Mr. John McCarthy, BSc Genetics – year 4 Mr. Tom Morehead, BSc Biochemistry – year 4 Ms. Shannon Quilty, BSc Biochemistry – year 3 Mr. Aonghus McCarthy, BSc Biochemistry – year 3
15.00 – 15.30	<u>Representatives of Postgraduate students</u> Ms. Ellen Joyce, MSc in MCB with Bioinnovation Mr. Maurice Stanley, MRes Mr. Vamsi Bharadwaj, MSc Biotechnology Ms. Rachel Furlong, PhD – year 1 Ms. Amy Lyons, PhD – year 4 Mr. Pramod Bhatt, PhD – year 1 Mr. James Harte, BSCBS – year 1
15.40 – 16.30	Tea/Coffee Professor Caroline Fennell, Senior Vice-President and Registrar
16.30 – 17.00	Meeting with officers of the university, to include College Financial analyst and other officers, depending on the PRG's line of enquiry

	Ms. Carmel Cotter, College Financial Analyst
17.15 – 18.00	Meeting with stakeholders Dr. Sally Cudmore, Manager APC Mr. Stephen Geary, Sothic Biosciences Dr. John O'Mullane, HSE Venue: Staff Common Room
19.00	Working private dinner for members of the Peer Review Group to commence drafting of report. Venue: Tower room, 1st Floor, River Lee Hotel

Thursday 14 April 2016	
Venue: School Meeting Room, Western Gateway Building	
08.30 – 09.00	Convening of Peer Review Group
09.00 – 10.00	Meeting with Professor David Sheehan, Head of School
10.00 – 10.30	Tea/coffee and private meeting of PRG
10.30 – 11.00	Exit presentation to all staff, to be made by the Chair of the Peer Review Group or other member of Peer Review Group as agreed, summarising the principal findings of the Peer Review Group. This presentation is <u>not</u> for discussion at this time. Venue: Room G.17, Western Gateway Building
11.00 – 13.00	Further work on drafting of the final report.
13.00 – 14.00	Lunch
14.00	Further work on drafting the report /agreeing next steps.