

## UNIVERSITY OF ULSTER

### REPORT OF A MEETING OF THE JOINT ULSTER UNIVERSITY, ACADEMY OF CLINICAL SCIENCE AND LABORATORY MEDICINE AND THE INSTITUTE OF BIOMEDICAL SCIENCE REVALIDATION / RE-APPROVAL / (RE-) ACCREDITATION PANEL

#### REVALIDATION UNIT 3C2A: BIOMEDICAL SCIENCES (POSTGRADUATE)

15 February 2018

#### PANEL

##### Ulster University Revalidation Panel

Dr M Keenan, Associate Dean (Education), Faculty of Computing, Engineering and the Built Environment, Ulster University [Chair]

Dr S Jones, Director of Biomedical Sciences, School of Health Sciences, York St John University

Dr C Pike, Deputy Head of Department of Biomedical and Forensic Science, Anglia Ruskin University

Mr A McAnallen, Vice-Principal, Academic and Student Affairs, Ulster University Students' Union (Coleraine)

##### Academy of Clinical Science and Laboratory Medicine (ACSLM)

Dr J Williams, Chairman of ACSLM Course Validation Committee

Professor F Mendes, Diretor Departamento de Ciências Biomédicas Laboratoriais, Coimbra Health School [Academic Advisor for the Academy]

##### Institute of Biomedical Science (IBMS)

Mr A Wainwright CSci FIBMS, Executive Head of Education [IBMS Education Officer]

Mrs B Kyle CSci FIBMS, Haematology Department, Monklands Hospital, Airdrie, Lanarkshire [Professional Representative]

Mrs C Murphy, BSc MSc CSci FIBMS, Associate Dean for Student Engagement, Faculty of Science and Engineering, University of Hull [Academic Representative]

##### In Attendance

Mrs A Garland, Academic Office, Ulster University

Mrs A Shmaia, Academic Office, Ulster University

REVALIDATION UNIT CO-ORDINATOR: Dr P Naughton, School of Biomedical Sciences, Ulster University

HEAD OF SCHOOL: Professor V Gault, School of Biomedical Sciences, Ulster University

APOLOGIES: Dr N Ayre, Senior Lecturer, School of Computing, Ulster University

## 1 INTRODUCTION

The joint Ulster University, ACSLM and IBMS Panel met to consider the following provision offered by the School of Biomedical Sciences within the Faculty of Life and Health Sciences:

Postgraduate Certificate in Biomedical Professional Practice (Part-time) (Distance Learning);  
Postgraduate Certificate in Diabetes (Part-time) (Distance Learning);  
Postgraduate Certificate in Stem Cell Biology (Part-time) (Distance Learning);  
MSc Biomedical Science (with Postgraduate Certificate and Postgraduate Diploma exit awards) (with pathways: Cellular Biology / Clinical Chemistry / Haematology / Medical Microbiology) (Part-time) (Distance Learning);  
MSc Biotechnology Research (with Postgraduate Certificate and Postgraduate Diploma exit awards) (Full-time) (Coleraine campus).

The Panel was given a presentation by Mrs Aine MacNeill, Instructional Design Consultant from the Office for Digital Learning, on the digital learning environment, Blackboard Learn. The presentation provided an overview of the Blackboard Learn resources available for staff and students, as well as the suite of tools available.

A presentation was also given by Miss Joan Atkinson, Sub-Librarian for the Faculty of Life and Health Sciences, which provided an overview of the Library services, including support available to students and staff and the various ways to access library resources and services.

Dr Declan McKenna, a member of the Course Team, gave a short presentation on the delivery of the module 'Haematology in Health and Disease'.

The Panel initially met with the Head of School of Biomedical Sciences (Professor V Gault), the Associate Head of School (Professor J McCormack), the Associate Dean (Education) of the Faculty of Life and Health Sciences (Professor A McKillop) and the Revalidation Unit Co-ordinator (Dr P Naughton). The provision was then discussed in more detail with the Course Team.

## 2 DOCUMENTATION

The Panel received the following documentation in advance of the meeting:

- (i) course submission;
- (ii) the University's Guidelines for Revalidation Panels;
- (iii) ACSLM Course Validation Guidelines;
- (iv) IBMS Criteria and Requirements for the Accreditation and Re-accreditation of MSc degrees in Biomedical Science (October 2016);
- (v) the QAA Subject Benchmark Statement for Biomedical Science (November 2015);
- (vi) the QAA Statement for Master's degree Characteristics (March 2010);
- (vii) external examiner reports for 2015/16 and 2016/17 and the School's responses;
- (viii) preliminary comments from Panel members;
- (ix) Academic Office notes on regulatory and standards matters.

### 3 BACKGROUND

The MSc Biomedical Science has two intakes per year, in September and February, and is currently offered in full-time mode on-campus and part-time mode by distance learning. The full-time, on-campus programme has, however, attracted fewer applicants since the last revalidation in 2013 and has therefore not been brought forward for revalidation or re-accreditation / re-approval. The three Postgraduate Certificate programmes in Biomedical Professional Practice, Diabetes and Stem Cell Biology derive from modules within the MSc Biomedical Science. The programmes aim to enhance employability, developing graduate specific skills and subject knowledge that will increase students' suitability for senior roles in the clinical, research and bio-sectors. The MSc enables eligible members of the IBMS to be recognised for Chartered Scientist status in the UK. In the Republic of Ireland, the MSc Biomedical Science continues to be a route to Fellowship of the ACSLM.

The main objective of the MSc Biotechnology Research programme is to improve the pool of knowledge and technological skills available to support biotechnology-based industry and research nationally and internationally. The programme is primarily designed for those who wish to develop their career in the biosciences with particular emphasis on biotechnology research, including academia or bio-pharmaceutical and bio-industries. The programme is delivered in full-time mode at the Coleraine campus to facilitate advanced practical skills training and completion of a laboratory-based research project. The programme started in 1998 as MSc Biotechnology and throughout its history has attracted students from Europe, Hong Kong, China and India. It was previously MSc Medical and Healthcare Biotechnology and has only been offered in its current format for one full academic year.

### 4 PROFESSIONAL BODY ACCREDITATION / APPROVAL

#### IBMS

**IBMS re-accreditation** was being sought for the following provision:

MSc Biomedical Science (with pathways: Cellular Biology / Clinical Chemistry / Haematology / Medical Microbiology)

**IBMS recognition** was being sought for the following provision:

Postgraduate Certificate in Biomedical Professional Practice  
Postgraduate Certificate in Diabetes  
Postgraduate Certificate in Stem Cell Biology

**IBMS accreditation** was being sought for the following provision:

MSc Biotechnology Research.

At the start of the meeting, Mr Wainwright, Executive Head of Education of IBMS, stated that he would be recommending to the Institute's Education and Professional Standards Committee that

- (i) the Postgraduate Certificates and the two BSc Hons Biomedical Science exit awards (Postgraduate Certificate and Postgraduate Diploma) be accredited for CPD purposes, rather than simply recognised by IBMS;
- (ii) the MSc Biotechnology Research be accredited retrospectively from September 2017.

## ACSLM

**ACSLM re-approval** was being sought for the following provision:

MSc Biomedical Science (with pathways: Cellular Biology / Clinical Chemistry / Haematology / Medical Microbiology).

## 5 MEETING WITH SENIOR STAFF

### 5.1 CONTEXT OF COURSE

The Panel began by asking the Senior Staff to outline how the provision sat within the strategic plans and priorities of the Faculty. The Associate Dean (Education) explained that Life and Health Sciences was a large Faculty with a strong portfolio of professionally accredited programmes. This well-established suite of programmes fitted well with the strategic aims and key priorities of the Faculty, one of which was to expand its postgraduate provision. The integration of teaching and research was evident within the programmes, in particular in the Stem Cell and Diabetes modules. The provision was flexible and inclusive, offering students the opportunity to study in full-time (MSc Biotechnology Research) or part-time by distance learning (MSc Biomedical Science). The Panel was informed that the MSc Biomedical Science had been among the first distance learning programmes offered by the University. The Senior Staff were confident that this suite of innovative programmes met the needs of the profession.

### 5.2 SUSTAINABILITY

The Panel queried the sustainability of aspects of the provision in terms of student numbers, in particular the MSc Biotechnology Research programme on which there was a relatively low number of students enrolled. The Head of School acknowledged that there had been a decrease in student numbers but highlighted that a key selling point was the research within the School of Biomedical Sciences. Students had expressed a desire for a programme with a greater focus on research and the modules in the Biotechnology Research programme were therefore more practical-based, with the research project carried out in-house. The projected student numbers for this programme had been estimated conservatively. The Panel enquired what the break-even number of students for the Biotechnology Research programme was and was advised that the break-even point was 10 students but that the desired number was 15 – 20.

The Panel was informed that the University was keen to recruit in the areas of Biomedical Science and Biotechnology research and that professional body accreditation would enhance the attractiveness of the programmes. The Senior Staff assured the Panel that the Faculty and School monitored student numbers on each programme closely and that the Postgraduate Certificates in Biomedical Professional Practice, Stem Cell Biology and Diabetes were deemed viable because of their shared modules with the Biomedical Science provision. The inclusion of the Stem Cell and Diabetes modules had added

richness to the Biomedical Science provision and it was the School's intention to develop further specialised modules in future.

### 5.3 CONTENT – MSc Biomedical Science

The ACSLM representatives expressed concern regarding the lack of blood transfusion and immunology content, which were considered key areas within Biomedical Science, and enquired if there were any plans to review this. The Panel was advised that the expertise to deliver an immunology module did not exist in-house and that, although recruitment of an immunologist was high on the School's agenda, it could not be guaranteed. The Head of School reported that aspects of immunology were taught within various modules across the programme. Similarly sufficient expertise did not exist within the School to deliver a module dedicated to transfusion science and the School was not convinced there would be a market for such a module. The ACSLM representatives were of the view that the inclusion of transfusion within the programme would make it very attractive and the IBMS representatives suggested that a view on this should be sought from the Employers' Liaison Group.

### 5.4 E-TUTORS

The Panel noted the reference in the minutes of a meeting of the Subject Committee to the resignation of e-tutors and the "lack of e-tutors to call upon from the e-tutor pool" and enquired regarding the School's plans to recruit and support e-tutors. The Head of School assured the Panel that there was not a problem with the recruitment of e-tutors and that the issue mentioned in the minutes of the meeting held in November 2016 had since been resolved. The ratio of one e-tutor for 25 students was maintained and there was currently a pool of e-tutors upon which the School could draw. The Panel enquired if the e-tutors were academics and was informed that they were recruited from those working in the profession. The only module where e-tutors were academics was the *Applied Research Methods* module.

### 5.5 BIOTECHNOLOGY RESEARCH PROJECT

The Panel noted the comment in the Subject Committee minutes regarding the potential issue of there not being sufficient supervision for the *Biotechnology Research Project* should student numbers increase in future years and enquired regarding the sustainability of supervision for projects. The Panel was informed that this issue had now been addressed. The Head of School advised that most staff members supervised two MSc projects and that an increase in student numbers would not present a problem.

## 6 MEETING WITH STUDENTS

### 6.1 MSc BIOTECHNOLOGY RESEARCH

The Panel met with a group of four students on the MSc Biotechnology Research programme.

#### 6.1.1 Student Support

The Panel enquired what support the students received. The students stated that support was available from Module Co-ordinators and that they could contact other students in their cohort using Blackboard Learn. English language support was also available for

international students for whom English was not their first language. The Students stated that they were very much enjoying the programme and that, as it was less intense than an undergraduate course, they were able to work part-time whilst studying.

#### 6.1.2 Assessment

The Panel sought the students' views on the range of assessment, the overall assessment load, the timing of assignments and how assessment was linked across modules. The students reported that the assessment provided the opportunity to complete a range of tasks and that it enabled them to gain confidence, as well as transferable skills, such as the ability to critically analyse.

The Panel enquired if students were given clear grading criteria for each assignment. The students stated that assessment tasks were described clearly in the module handouts and that they could ask lecturers for advice and guidance regarding the assignment requirements.

#### 6.1.3 Feedback

In response to a question from the Panel, the students stated that they received feedback on their assignments relatively quickly. Full annotated notes were provided, which they found very useful in helping them to improve for future assignments.

The Panel enquired if there were formal mechanisms in place by which students could provide feedback on the programme to staff. The students explained that at the end of each semester they were asked to complete questionnaires and that they could email feedback to staff at any time throughout the duration of the programme. The Panel enquired if there was any opportunity to provide feedback on the overall programme. The students stated that they had a course representative on the Staff Student Consultative Committee and that they could approach the Course Director if an issue arose. The Panel queried the effectiveness of the course representative system given that there were only eight students on the programme who could contact staff directly on an individual basis. The students stated that they would engage in a group chat and appoint someone to report any issues.

#### 6.1.4 Opportunities to meet with Alumni

The Panel enquired if opportunities existed for students to meet with alumni. The students explained that to date there had only been one previous cohort on this programme but that they would have the opportunity to meet a former student as part of the *Professional Practice* module.

#### 6.1.5 Career Aspirations

The Panel then asked the students about their career aspirations. Most of the students stated that they wished to undertake a PhD and one student was investigating, with the help and guidance of staff, the possibility of setting up her own laboratory. The Chair commended the integration of research within the provision which was evident in the students' aspirations.

### 6.1.6 Changes to Programme

When asked if they would like to change any aspects of the programme, the students stated that they liked the content of the course and recognised the value of it but that they would welcome the inclusion of more laboratory time.

The Chair thanked the students for taking the time to meet with the Panel and wished them success in their future careers. The Panel members were in agreement that the students were a credit to themselves and to their course.

## 6.2 MSc BIOMEDICAL SCIENCE

The Panel contacted by telephone two students currently undertaking the MSc Biomedical Science programme by distance learning.

The first student was currently preparing her project proposal and was employed in the Belfast Trust. The student informed the Panel that she had completed the taught modules of the programme a number of years ago and had now returned to undertake the project and complete the Master's award. The student stated that she found the distance learning nature of the programme very flexible, which suited her as she was employed full-time. In response to a question from the Panel, she confirmed that lecturers responded quickly to queries from students. The Panel enquired if the student considered that the taught modules element of the programme had added to the knowledge gained in her undergraduate degree. The student stated that she now had a good overall knowledge. The Panel enquired how the relationship between students, Module Co-ordinators and E-tutors worked. The student reported that when studying the taught modules, she had had more contact with the Module Co-ordinator but that she had found the E-tutor for her project to be very helpful.

The second student was also employed in the Belfast Trust. When asked about the relationship between students, Module Co-ordinators and E-tutors she stated that she usually contacted the E-tutor in the first instance and then if the E-tutor could not help, she contacted the Module Co-ordinator. Most of the time, however, the E-tutor provided sufficient help and she did not need to contact the Module Co-ordinator very often. The student stated that more specialised tutorials on how to approach specific assignment tasks would be beneficial.

## 7 MEETING WITH EMPLOYERS

The Panel met with the following employers, who were also members of the Employers' Liaison Group:

Mrs V Hinch, Antrim Area Hospital

Miss R Boyce, Ulster Hospital

Mrs G McKeown, Northern Ireland Blood Transfusion Service, Belfast.

### 7.1 Involvement with Course Team

The Panel enquired how often the employers met with the Course Team. The employers explained that they were members of the Employers' Liaison Group (ELG) for Ulster programmes and not specifically for this provision. The Panel then enquired if the employers were of the view that there was sufficient time at the meetings of the ELG to

discuss the postgraduate provision. The employers stated that discussions at these meetings mainly focused on the undergraduate provision but that postgraduate programme issues were also discussed, including the content of the postgraduate programmes. The employers reported that there were two transfusionists on the ELG and that the lack of transfusion content within the MSc Biomedical Science programme had been discussed. The employers explained that there had previously been transfusion content included in the programme but that there was no longer sufficient expertise based at the University and it was difficult for specialists outside of the University to find the time to come to deliver a module dedicated to transfusion content. There was, however, an element of transfusion in the Haematology pathway.

## 7.2 Match of Provision to Employers' Needs

In response to a question from the Panel, the employers confirmed that the provision did meet their needs but stated that some of the material was based on old techniques and required updating to take account of current practice. The employers were, however, impressed with the broad coverage of the different areas of Biomedical Science within the provision and suggested that current practice could be incorporated through the use of case studies. When asked what processes were in place to enable employers to feed back their views to the Course Team, the employers stated that if they had an issue with the provision it was up to them to approach the Team. The Panel was of the view that the opportunity for employers to inform the content of the provision was being missed.

The Panel sought the employers' views of the graduates of the provision. The employers stated that it very much depended upon the individual but that the University's undergraduates constantly performed well as they had undertaken a placement year. Not many of their employees had taken the MSc Biomedical Science as funding was no longer available. One employer reported that she currently had one employee on the programme and that the student was able to bring what she had learned from the course into the workplace which was beneficial to other staff. The Panel was informed that the Higher Specialist Diploma (HSD) was a more popular route to career advancement as the cost of this was much less than the Master's programme. The employers were of the view that in terms of knowledge and performance both programmes were comparable but acknowledged that the Master's qualification was more widely recognised. The ACSLM representatives stated that the MSc Biomedical Science was not as expensive as similar courses offered by other institutions. The employers stated that, despite this being the case, the opportunity only existed for a relatively small number of employees to progress to senior posts and that some did not want the pressure of such a position.

## 7.3 E-Tutors

One of the employers stated that she was an E-tutor and the Panel enquired if she considered up to 25 students to be a manageable workload. The employer was of the view that this was manageable but that a greater number of students might not be. The employer explained that postgraduate students did not tend to contact their E-tutor as much as undergraduates. The Panel enquired regarding the E-tutor's interaction with the Module Co-ordinator and was informed that the academic staff were always very helpful and prompt in replying to queries from the E-tutor.

The Chair of the Panel thanked the employers for taking the time to meet with the panel and for their valuable contribution to the revalidation exercise.

## 8 MEETING WITH COURSE TEAM

The Panel met with the Course Team, which included two E-tutors, to discuss the programme in more detail.

The Chair commended the Team members on their work and the quality of the documentation. The IBMS representatives stated that the required self-evaluation document had been omitted from the course documentation and that discussion of a self-evaluative nature would therefore be expected.

### 8.1 CURRICULUM DESIGN PRINCIPLES

The meeting with the Team began with a discussion around the University's Curriculum Design Principles and how they had been incorporated within the provision. The Team stated that cognisance had been taken of the Principles in that the module learning outcomes had been reduced. This had in turn informed the assessment which now consisted of two pieces of assessment for a number of modules. There was a focus on widening participation and employability and the online learning environment provided a flexible approach for students returning to study and those in full-time employment.

The Chair enquired why the provision comprised modules of 15 and 30 credit points instead of 20 credit points. The Team explained that, with regard to the MSc Biomedical Science programme, in terms of delivering a concise part-time programme over two years, taking into account the maximum load of 45 credit points per semester for part-time students, the 15 and 30-credit point modules worked best.

### 8.2 STRUCTURE OF POSTGRADUATE CERTIFICATE IN BIOMEDICAL PROFESSIONAL PRACTICE

The Panel noted that students on the Postgraduate Certificate in Biomedical Professional Practice took 15 credit points in semester 1 and 45 in semester 2 and queried why the programme was not structured in such a way to enable a balanced study load of 30 credit points each semester. The Team explained that the 15-credit point module provided a good introduction to distance learning and gave students the confidence to progress to semester 2. The Panel was concerned that the increase from 15 to 45 credit points in the second semester might be a shock to students. The Team however stated that a change in structure would have a significant impact on modules that were shared across programmes and that the current structure provided for a September and a February intake.

### 8.3 MSc BIOMEDICAL SCIENCE

#### 8.3.1 NAMED PATHWAYS

The Panel noted that the MSc Biomedical Science programme had four named pathways: Cellular Biology / Clinical Chemistry / Haematology / Medical Microbiology. The Panel queried why there were no Stem Cell and Diabetes named pathways. The Team stated that the others were recognised disciplines, whereas Stem Cell and Diabetes were more specialisms than disciplines. This was, however, something that could be considered in the longer term when the new modules were established.

The Panel also queried the statement in the course document that “students will be given the choice of graduating with a MSc in Biomedical Science or in their chosen specialist discipline”. The Team explained that students had to meet a requirement of prior learning at Level 5 to pursue a discipline. Students who did not meet this requirement could undertake the programme but were not eligible to receive the award with a named discipline.

### 8.3.2 EXIT AWARDS

#### 8.3.2.1 Requirements for Postgraduate Certificate Exit Award

The Panel sought clarification regarding the requirements for the Postgraduate Certificate exit award and was advised that students had to have completed 30 credit points in a specialism module or *Evidence-Based Practice in Healthcare Sciences*, along with a further 30 credit points in optional modules. The Team confirmed that students could exit with any combination of modules provided they had completed the required modules.

#### 8.3.2.2 Currency of Postgraduate Certificate and Postgraduate Diploma Exit Awards

The Panel enquired how long the exit awards remained current if, for example, a student exited with one of these awards but later wished to return to complete the Master’s award. The Team stated that such applications were considered on a case-by-case basis but that students were normally required to complete the MSc within five or six years. Students who had completed a relevant Postgraduate Diploma from another institution were also considered on a case-by-case basis. The Team assured the Panel that students who returned after a break in their studies to complete the *Research Project* module generally performed well. These students were required to complete a 10-credit point *Research Proposal* module prior to undertaking the project.

### 8.3.3 MSc BIOMEDICAL SCIENCE RESEARCH PROJECT

#### 8.3.3.1 Project

The Panel noted that the *Research Project* module for the MSc Biomedical Science programme involved students collecting data in their employment and enquired what safety net was in place if a student’s state of employment changed or (s)he was unable to complete the collection of data in their workplace. The Team stated that in Year 2, as part of the *Applied Research Methods* module, project proposals were submitted to the academic supervisor to determine their suitability as a project and students received guidance. The literature review for the project was also undertaken as part of this module. If a student could no longer work owing to unforeseen circumstances or was unexpectedly made redundant, options included undertaking a data driven project, provided suitable University supervision was available, or taking a leave of absence until (s)he gained suitable employment with access to a laboratory for their project. The Team stated that every reasonable measure was taken to facilitate students.

One of the E-tutors attending with the Team advised that one of his students had experienced difficulty obtaining ethical approval but deferred for a year and subsequently returned to complete the project. The E-tutor reported that projects

undertaken by employees had been beneficial to the employer and that the programme was very flexible and facilitated students who were, for example, working full-time and had family responsibilities.

The Panel enquired if it would be possible for a student to complete a data-driven project without access to a laboratory. The Team advised that, provided the project met specified requirements, including professional body requirements, and there was appropriate supervision available, this would be permitted. The Panel queried the reference in the module description to students having the choice of undertaking a hypothesis-driven research project or in-depth critical analysis and enquired how the Team would ensure equivalence. The Team stated that any such reference had been included in error and that all projects were hypothesis-driven. Projects were either required to be wet-based projects carried out in a laboratory or strictly focused on improving patient outcomes.

The Panel enquired how many projects were suitable for publication in scientific journals. The Team stated that students were advised through the feedback for the project if it was of publishable quality but no formal record was kept to enable a precise number to be determined. One of the E-tutors advised that all of his students were encouraged to submit abstracts for publication.

#### 8.3.3.2 Work-Based Supervisors

The Panel enquired what training the University provided for the project work-based supervisors. The Team explained that students were asked to nominate a supervisor in the work place who was required to have obtained a Master's qualification and to have published a peer review paper. It was also desirable that the work-based supervisor was a member of a professional body. The work-based supervisor was responsible for the oversight of the day-to-day aspects of the project. The Team advised that, as project proposals had already been verified by the academic supervisor, the project usually ran smoothly. The Panel enquired if the work-based supervisors were given a copy of the *Research Project* module description and was advised that students were expected to share this information.

The Panel queried why it was desirable for the work-based supervisor to be a member of a professional body. The Team explained that, as members of a professional body were required to sign up to a code of conduct, this provided reassurance that processes would be conducted thoroughly. The Team advised that this criteria was also applied to guarantors who supervised the examination process for distance learning students.

#### 8.3.3.3 Marking of Projects

The Panel noted that one of the external examiners had commented on a lack of clarity in the project marking process and queried this with the Team. The Team stated that a response had been forwarded to the external examiner clarifying how the final mark for the project was determined. The Team explained that the project was assessed by two markers and if there was a discrepancy between the two marks, the project was assessed by a third marker.

#### 8.3.3.4 Ethical Approval

The Panel enquired if any ethical issues had arisen in terms of project proposals from international students. The Team stated that all proposals were required to be submitted to filter committees. Research Ethics Committee standards from around the world were considered and if a letter of acceptance from a committee or a research facility could be provided, the proposal could be ethically approved. Certain types of projects could be approved through the University Research Ethics Committee.

### 8.3.4 ASSESSMENT

#### 8.3.4.1 Equity of Assessment between Modules

The Panel noted that, in accordance with the University's new Curriculum Design Principles, the typical assessment load should be 2,000 words per 10 credit points. The panel also noted that an assignment of 2,500 words was worth 50% of the *Applied Research Methods* module, while an assignment of 3,000 words was worth 40% and queried the rationale for this. The Team acknowledged that a review of the assessment within and across the modules should be undertaken.

#### 8.3.4.2 Advances in Medical Biotechnology and Healthcare Delivery Module

The Panel noted that one of the assignments in the *Advances in Medical Biotechnology and Healthcare Delivery* module offered students the choice of submitting a written critical analysis of 2,500 words or undertaking a poster presentation and queried how these would be marked in an equivalent and balanced way. The Team advised that the information in the module description was either incorrect or required further clarification. The Team undertook to rectify this.

#### 8.3.4.3 Discussion Boards

The Panel noted that in some modules students were graded on their participation in discussion boards and sought an explanation as to how this was assessed. The Team stated that the module handouts explained how this would be assessed. The Panel was of the view that more information about this type of assessment should be included in the course document.

#### 8.3.4.4 In-Class Tests / Multiple Choice Question Tests

It was noted that the external examiner had commended the breadth of assessment, but the Panel was of the view that a large number of modules relied upon written assignments and multiple choice question tests. The Panel queried the suitability of using multiple choice question tests to assess at Level 7. The Team advised that the rationale for the use of this assessment method was to ensure that students engaged with, and understood, the course material each week and stated that there was also a higher level assessment within each module.

The Panel enquired if the guarantor's duties extended to cover in-class tests. The Team advised that the class tests were not taken under supervision of a guarantor

but that questions were randomised and a time limit for completing the test was imposed on students. Given the sophisticated methods of cheating, the Panel was of the view that the Team should consider the use of guarantors for class tests in future.

### 8.3.5 E-TUTORS

The Panel noted that the duties of an E-tutor included tutoring, marking assignments and providing pastoral care for up to 25 students and enquired of the E-tutors if this was a manageable workload. One of the E-tutors stated that it was initially daunting but that this was now his third year as an E-tutor. The Panel was informed that E-tutors received induction through Blackboard Learn and that students were given guidelines on what to expect from the E-tutors. The E-tutor stated that he currently was responsible for approximately 35 students on the *Quality Management* module but that he received excellent support and the students were very motivated.

### 8.3.6 ADVANCES IN CELLULAR PATHOLOGY MODULE

The Panel noted that the total notional student effort hours for the *Advances in Cellular Pathology* module was only 36 hours. The Team stated that this should be 300 hours and that the module description would be corrected.

## 8.4 MSc BIOTECHNOLOGY RESEARCH

### 8.4.1 ENTRY REQUIREMENTS

The Panel was of the view that it was unclear from the course documentation if students taking the MSc Biotechnology Research programme were required to be in employment. The Team confirmed that they were not.

### 8.4.2 ASSESSMENT STRATEGY

The Panel noted with concern that the assessment deadlines across the modules in the Biotechnology Research programme appeared to be set close together, with five out of the seven assignment deadlines in semester 1 set during the last three or four weeks. A similar pattern was noted in semester 2. The Team stated that students were given details and submission dates of assignments at the beginning of the semester and that extensions to deadlines could be granted on a case-by-case basis. The Panel was of the view that the assessment needed to be spread more evenly across the semester to avoid a number of deadlines coinciding at the end of semester.

The Panel was also of the view that a more evenly spread assessment schedule would provide opportunity for students to reflect on feedback and use it to improve in their next assignment. The Panel queried how, in the *Scientific Methods and Communication* module, feedback from an assignment submitted in week 12 was expected to be taken into account when completing the next assignment which was due in week 13. The Team, advised that the three-week Christmas break occurred between weeks 12 and 13.

The Panel was surprised to note that the MSc Biotechnology Research programme had not incorporated any competency-based assessment despite being described as a “practical” course.

The Chair of the Panel stated that the Team should review and revise the assessment strategy for this programme.

### 8.4.3 PROJECT

#### 8.4.3.1 Learning Outcomes

The Panel was of the view that the learning outcomes for the *Biotechnology Research Project* appeared to be very simplistic and were in some cases not written appropriately as learning outcomes. The Panel noted that one of the learning outcomes specified for this module was to write the project and considered that this should not be listed as a learning outcome. The Team undertook to review the learning outcomes for this module.

#### 8.4.3.2 Content

The Panel noted that “Making oral and poster presentations” was included in the ‘Content’ section of the *Biotechnology Research Project* module description and queried if students were not required to demonstrate these skills earlier in the programme. The Team assured the Panel that these skills were taught in the semester 1 *Scientific Methods and Communication* module and the Panel therefore queried why they were being repeated. The Team explained that the *Scientific Methods and Communication* module offered an introduction to these skills but that such skills would be used to present research in the *Biotechnology Research Project* module. The Panel stated that the module description should be amended to reflect this.

The Panel queried why the module description did not specify the word count for the research paper and the Team explained that the word count depended upon the scientific journal to which students were submitting.

### 8.5 ALL PROGRAMMES

#### 8.5.1 ENTRY REQUIREMENTS

The Panel noted the English language entry requirements for non-native speakers of IELTS 6.0 with no less than 5.5 in any band and was concerned that students with a score of 5.5 in the reading or writing band might struggle, particularly on the distance learning modules. The Team, however, stated that it was satisfied that this requirement was sufficient and the Chair of the Panel advised that this IELTS score was deemed appropriate by the University.

#### 8.5.2 ASSESSMENT

##### 8.5.2.1 Grading Criteria

The Panel asked the Team what information was provided to students in terms of grading criteria. The Team explained that examples of assignments where marks in different grade bands had been achieved were given to students. The Module Co-ordinator for the *Quality Management* module informed the Panel that students were given a proforma which indicated the requirements of the different grade bands. Another example was given where, in the *Current Topics in Biotechnology*

*Research* module, students were given a breakdown of the marks awarded for each section of an essay assignment and guidance was provided in terms of the level of information required for each grade. This guidance was further reinforced verbally. The Panel was informed that, at undergraduate level, examples of work from the previous cohort with low, middle and high grades were given to students to mark in groups. The Team was of the view that a similar exercise could also be beneficial for postgraduate students. In addition, the University's generic grading criteria was available to all students. The Panel, however, reported that students did not appear to be aware that this information was available. The Team assured the Panel that marking criteria was given to students when the assignment was set but acknowledged that staff could be more proactive in steering students towards this information. The Panel stated that the use of clear grading criteria was an effective means of enhancing students' performance and was also a good tool for providing feedback.

#### 8.5.2.2 Assessment Strategy

The Panel was of the view that the overarching assessment strategy for both courses should be revised to ensure equity across the modules in terms of the volume of assessment and to ensure that assignment deadlines were spread evenly across the semester.

#### 8.5.3 LEARNING OUTCOMES

The Panel asked the Team to review the modules learning outcomes for both programmes in order to ensure that they were written appropriately at Level 7.

#### 8.5.4 READING LISTS

The Panel was of the view that many of the module reading lists appeared dated and required updating. The Team stated that some earlier editions of texts were more useful than later editions and that up-to-date texts did not exist for some of the subject areas for which journals were more widely used.

#### 8.6 EMPLOYERS' LIAISON GROUP

The Panel enquired how often the ELG met. The Team advised that the group met once per semester and more often if necessary. The Panel reported that the impression gained from the meeting with the employers was that the ELG tended to focus more on the undergraduate provision and that because employers were not sending many employees on the course, they did not fully appreciate their role in influencing the curriculum design. The Team stated that meetings of the ELG provided the opportunity for employers to make their needs known and to take information back to their staff members. It was essentially a forum for transmitting information.

The Panel stated that discussion of course design at meetings of the ELG was not evident and reported that the employers who had met with the Panel earlier had indicated that the curriculum required updating. The Panel was of the view that the opportunity for the University to work with employers to be at the forefront of developments in the area of Biomedical Sciences was being missed. The Team stated that the ELG meetings provided an opportunity for formal meetings but that informal discussions were ongoing

outside of the meetings. The Team, however, acknowledged that separate ELGs for different courses might be more effective.

In response to a question from the Panel, the Team advised that there were not separate Course Committees but that a combined Subject Committee met once per semester and that the Faculty Learning and Teaching Committee met at least twice per year. The Panel enquired if the E-tutors were involved in the curriculum design process and was advised that the *Quality Management* module had been introduced to fill an identified gap.

## 8.7 WIDER STUDENT EXPERIENCE

The Panel enquired how information about opportunities for study abroad and placement was disseminated. The Team stated that these opportunities were not highlighted given that students on the MSc Biomedical Science programme were distance learning students and those on the MSc Biotechnology Research were only on-campus for one year. Information on opportunities for study or placement in America or China was disseminated through Student Support. The Team reported that the student portal areas were being improved and that students could obtain information through the portal and build an online reflective portfolio of all their opportunities. Representatives from the Career Development Centre attended induction sessions to advise students on the support available. PhD opportunities were advertised prior to the second semester.

## 9 CONCLUSIONS

### Ulster University

The University Panel members endorsed the ACSLM and IBMS commendations as stated below and also commended the Team on the following aspect of the provision:

the positivity of the students which highlighted the quality of the student experience.

The Panel agreed to recommend to the University's Academic Standards and Quality Enhancement Committee that the provision be approved for a period of five years (intakes 2018 – 2022), subject to the conditions and recommendations of the Panel being addressed, and a satisfactory response and revised submission being forwarded to the Academic office by 15 May 2018 for approval by the Chair of the Panel.

### Conditions

The following conditions relate to all programmes:

- (i) that the module learning outcomes be reviewed to ensure that they are written appropriately for Level 7;
- (ii) that the overarching assessment strategy be reviewed to ensure equity across the modules in terms of the volume of assessment and to ensure that assignment deadlines are appropriate and ensure a balanced workload across the semester;
- (iii) that all of the points raised by the Academic office in the Appendix to the Panel's report be addressed.

## Recommendations

The following recommendations relate to all programmes:

- (i) that strategies be reviewed, in terms of safeguarding against cheating and plagiarism, to ensure robust processes are in place in relation to remote assessment;
- (ii) that the robustness of the postgraduate voice in the Employers' Liaison Group be strengthened;

The following recommendation relates to MSc Biotechnology Research:

- (iii) that, where possible, consideration be given to the enhancement of the practical components and assessments of the programme.

## **Academy of Clinical Science and Laboratory Medicine**

The ACSLM representatives commended the Team on the following aspects of the MSc Biomedical Science provision:

- (i) the evident care of staff, including e-tutors, and the way in which they work as a cohesive Team;
- (ii) notwithstanding some minor issues, the way in which the course is well-structured, maintained and delivered;
- (iii) the general assessment of the programme which is well standardised and inclusive.

The ACSLM representatives agreed to recommend to the Council of the Academy that MSc Biomedical Science (with pathways: Cellular Biology / Clinical Chemistry / Haematology / Medical Microbiology) (Part-time) (Distance Learning) be re-approved for five years (intakes 2018 – 2022), subject to the following conditions and recommendation being addressed:

## Conditions

- (i) that any major change to the programme be notified to the Academy for consideration;
- (ii) that the course documentation be reviewed in line with discussions.

## Recommendation

That the overall assessment strategy be reviewed in line with discussions.

## **Institute of Biomedical Science**

### Re-accreditation of:

MSc Biomedical Science (with pathways: Cellular Biology / Clinical Chemistry / Haematology / Medical Microbiology (Part-time) (Distance Learning)).

### Accreditation for CPD purposes of:

Postgraduate Certificate in Biomedical Professional Practice (Part-time) (Distance Learning)

Postgraduate Certificate in Diabetes (Part-time) (Distance Learning)

Postgraduate Certificate in Stem Cell Biology (Part-time) (Distance Learning)

Postgraduate Certificate and Postgraduate Diploma in MSc Biomedical Science (Exit Awards) (Part-time) (Distance Learning)

MSc Biotechnology Research (Full-time) (Coleraine campus).

The IBMS representatives commended the Team on the following aspects of the provision:

- (i) the large portfolio of accredited post-graduate programmes being offered to achieve strategic objectives and the desire to have flexible, inclusive access to teaching and research support in a range of specialist areas;
- (ii) the excellent partnership arrangements with employers in developing, maintaining and providing e-tutor support for the curriculum.

### **Outcomes**

A recommendation will be made to the Institute's Education & Professional Standards Committee to re-accredit all existing programmes from September 2018 and to accredit the new MSc in Biotechnology Research programme from 2017 in order to include current students. A recommendation will also be made to accredit the PgC and PgD awards as these will provide a valuable CPD opportunity. To note these awards are not suitable for HCPC registration. This is subject to the following conditions, documentary evidence to be provided to the IBMS Education Department by end May 2018:

### **Conditions:**

- (i) There needs to be clear marking criteria available to students (provide examples);
- (ii) Review module specifications in line with discussion including learning outcomes, inconsistencies, assessment percentages, reading lists;
- (iii) Provide a Project Supervisor Handbook.

### **Recommendations:**

- (i) Strengthen the involvement of the employer liaison group in the review and development of postgraduate qualifications, for example transfusion/molecular processes related to current practice;
- (ii) Review of assessment scheduling in line with discussion.

## 10 APPRECIATION

The Chair thanked the members of the University Panel and the ACSLM and IBMS representatives for their valuable contribution to the joint revalidation / re-approval and (re-) accreditation exercise.

The Chair and the Academic Office were thanked by the ACSLM and IBMS representatives.

The Team was also thanked by the Chair of the Panel.