Athena SWAN Bronze department award application (Ireland)

Name of institution: University College Cork

Department: School of Chemistry

Date of application: 30th November 2017

Date and level of institutional Athena SWAN award: November 2016, Bronze

Contact for application: Professor John Wenger

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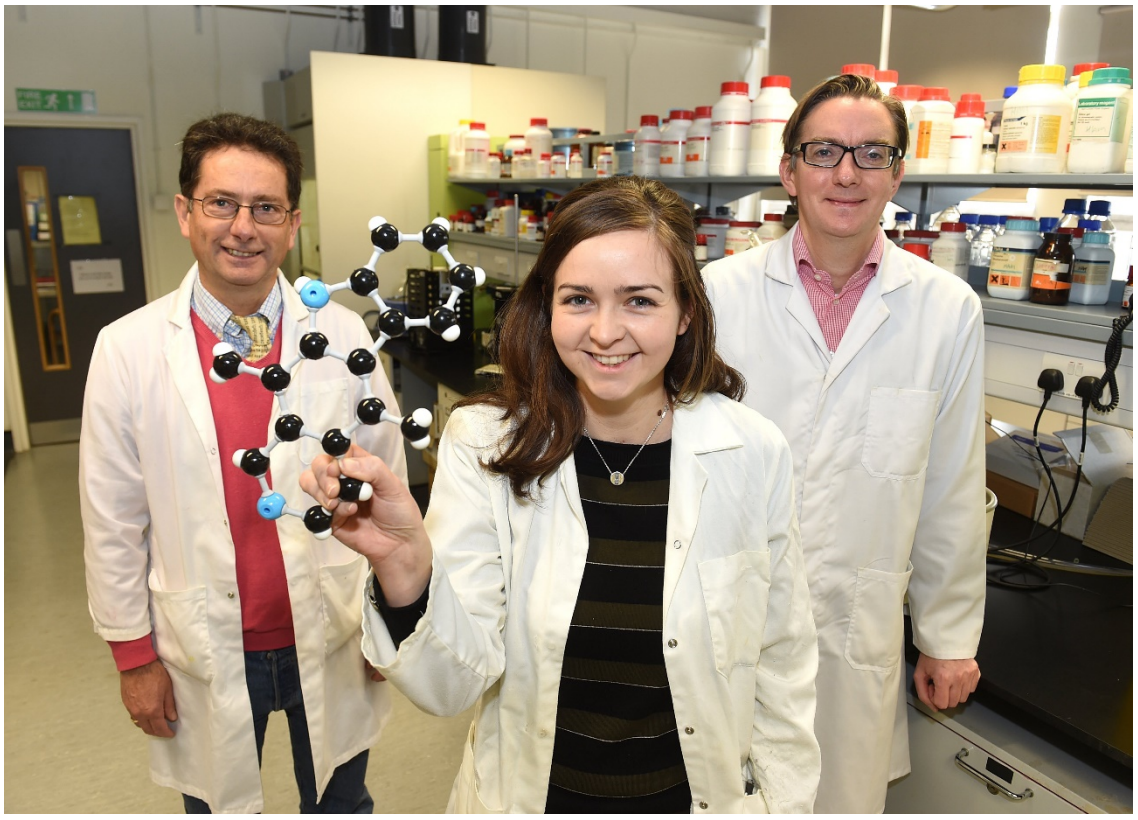

Abbreviations/definitions:

1H	First class honours
2H1	Upper second class honours
2H2	Lower second class honours
3H	Third class honours
AS	Athena SWAN
ABCRF	Analytical and Biological Chemistry Research Facility
AWDM	Academic Workload Distribution Model
BEES	School of Biological, Earth and Environmental Sciences
CFS	Chemistry with Forensic Science (BSc degree)
CHE	Chemistry (BSc degree)
CK402	Biological and Chemical Sciences (1st year entry stream)
CK406	Chemical Sciences (1st year entry stream)
CPC	Chemistry of Pharmaceutical Compounds (BSc degree)
CPY	Chemical Physics (BSc degree)
EAT	Executive Advisory Team
ECU	Equality Challenge Unit
HEA	Higher Education Authority
HoS	Head of School
HR	Human Resources
LEAD	Living Equality and Diversity
LPEB	Lecturer Promotion and Establishment Board
OPRA	Outreach, Public Relations and Admissions Committee
PDP	Professional Development Plan
PDR	Post-Doctoral Researcher
PDRS	Performance & Development Review System
PG	Postgraduate
PI	Principal Investigator
RGSC	Research and Graduate Studies Committee
RSC	Royal Society of Chemistry
SAT	Self-Assessment Team
SEFS	College of Science, Engineering and Food Science
TCD	Trinity College Dublin
UCC	University College Cork
UCD	University College Dublin
UG	Undergraduate
WG	Working Group (in SAT)

1. Letter of endorsement from the head of department: recommended 500 words

An accompanying letter of endorsement from the head of department should:

(i) confirm their support for the application;

(ii) explain how the Athena SWAN action plan and activities in the department contribute to the overall department and/or institutional strategy;

(iii) comment on how staff at all levels are, and will continue to be, engaged with the process at present and during the lifetime of the award.

***Note**: If the head of department is shortly to be/has been recently succeeded, applicants may include an additional short statement from the incoming head.*

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Dr Ruth Gilligan
Athena SWAN Manager
Equality Challenge Unit
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SE1 7SP

30th November 2017

Dear Dr Gilligan,

I fully support the School of Chemistry's Athena SWAN application. I am committed to ensuring the School is an inclusive and fulfilling place to work for staff and a rewarding and supportive environment for students to study. As a research-led centre of excellence, we understand that diversity propels research and innovation. The School's strategic plan (2016-2021) endorses the Athena SWAN Charter Principles and commits to increasing the representation of female academics and researchers in the School. The targets and actions we commit to in this application will help us achieve these objectives.

I have been an active member of our School Athena SWAN self assessment team (SAT) since it was formed, and led one of its working groups. Over the past year, as our self-assessment and staff consultation progressed, awareness of Athena SWAN increased in the School and we already see positive impacts. Many staff (and all SAT members) have already had face-to-face unconscious bias training. The School's job advertisements and information packs now highlight UCC's institutional Athena SWAN award. Responding to staff feedback, key staff meetings are now held between 10:00-16:00. We are launching a new staff induction booklet highlighting flexible work arrangements and supports available for working parents and carers. The SAT is fully embedded in our School's committee structure, reporting to School Board monthly.

We are proud that the first woman to hold the office of Vice President for Research & Innovation in University College Cork, Professor Anita Maguire, is a member of our School (Chair of Pharmaceutical Chemistry) and of our SAT. Prof. Maguire leads an active research team, directs the Analytical and Biological Chemistry Research Facility and is highly committed to postgraduate education in the School and in UCC.

Yet it remains the case that Prof. Maguire is the only female professor and one of only three women among the School's 20 academic staff. At the same time, 54% of our 481 undergraduate students are women. An even higher proportion of our 79 doctoral students are female (57%), but women account for only five of our 17 research staff. Three are in senior roles (Research Fellows), and we currently have one female and five male postdoctoral researchers.

Tackling the attrition of women at the point of transition from PhD to postdoctoral research roles is a key priority in our action plan. We will –

- Overhaul our researcher recruitment process to make it transparent and to allow monitoring at each stage; unconscious bias training for all staff involved in recruitment.
- Achieve targets for gender balance on selection committees for researcher posts.
- Establish a careers forum to allow sharing of experience and advice by research and academic staff with PhD students, and to create a support network for PhD students contemplating research roles.
- Interview our PhD students near degree completion to understand their career plans and motivations, and next destinations.

We have also targeted actions to encourage more applications from women for recruitment to academic posts, and will improve supports for working parents and carers among our staff.

Our action plan draws on and complements UCC's institutional Athena SWAN action plan. Our School Board and Executive Advisory Team are fully committed to the goals we have set, and will commit the resources necessary to ensure timely progress in implementing the action plan.

Justin D. Holmes
Head of School
School of Chemistry
University College Cork

544 WORDS

The information presented in the application (including qualitative and quantitative data) is an honest, accurate and true representation of the School.

2. The self-assessment process: recommended 800 words

Describe the self-assessment process. This should include:

(i) ***a description of the self-assessment team (SAT)****, including members' roles (both within the department and as part of the team) and how and why the team were selected; for example, any consideration of gender balance, members' expertise or experience with gender and/or equality issues, work–life balance arrangements or caring responsibilities.*

The SAT comprises academic, technical, administrative and research staff in the School, as well as PhD and UG students (Table 2.1). The team represents different career grades, provides a good gender balance (5 males, 8 females) and has wide-ranging experience of teaching, research, administration and line management responsibilities. Selection of SAT members was based on the diversity of roles and expertise, gender balance and personal backgrounds. Seven (54%) of the SAT members have children and/or childcare responsibilities, are in dual career partnerships, and/or have taken maternity or paternity leave. Two (15%) of the members also have other carer responsibilities.

Table 2.1. Composition of the SAT, relevant experience and roles of the members.

	Name/Position	Role on SAT	Relevant experience
	**Subhajit Biswas** Research Fellow	Career Development Working Group (WG). Organised Postdoctoral Researcher (PDR) Focus Group.	Researcher in the School for 7 years.
	**Trevor Carey** Senior Technical Officer	Student Data WG (Chair). Data analysis for outreach activities. Organised UG student survey.	Joint Chair of OPRA Committee, outreach co-ordinator. Manages School website and social media outlets.
	**Jessica Doherty** PhD Student	Career Development WG. Organised PG student Focus Group.	Former UG student in Chemical Physics.

	**Elizabeth Gilchrist** Lecturer in Analytical Chemistry	Career Development WG (Chair). Staff Data WG.	Joined SAT as a Postdoctoral Researcher. Appointed as Lecturer January 2017.
	**Émer Hickey** Undergraduate Student	Career Development WG.	Speaker at national and European events promoting involvement of women and young people in STEMM.
	**Justin Holmes** Head of School, Professor of Nanochemistry	Career Transition Points WG (Chair). Organisation and Culture WG.	Member of SEFS College Management Team. Member of Lecturer Promotion and Establishment Board.
	**Anita Maguire** Vice President for Research & Innovation, Professor of Pharmaceutical Chemistry, Director of ABCRF	Organisation and Culture WG. Promoting women in science at UCC and national level.	Member of UCC board for the GENOVATE (Gender Equality in Research & Innovation) project. Member of UCC and SEFS AS Steering Groups.
	**Orla Ní Dhubhghaill** Lecturer in Inorganic Chemistry	Career Transition Points WG. Organisation and Culture WG.	Final Year Coordinator. School's student experience/well-being officer and Disability Support Services liaison.
	**Aoife O'Sullivan** Technical Officer	Established application timeline. Organised collection of student/staff data.	Member of SEFS AS Steering Group. Alumnus of Aurora Leadership Foundation.

	**Claire O'Sullivan** Senior Executive Assistant	Administrative support. Prepared agendas and minutes for meetings.	Completed LEAN White Belt Training. Part of the School Administration team.
	**David Otway** Lecturer in Inorganic & Materials Chemistry	Flexible Working and Career Breaks WG (Chair). Organisation and Culture WG.	Joint Chair of OPRA Committee. Champion for E-learning and Scientific Communication Skills.
	**Claire Tobin** School Manager	Staff data WG (Chair). Organised staff survey. Observed AS assessments in ECU.	Manages administrative function of the School. Member of SEFS AS Steering Group.
	**John Wenger** Professor of Physical Chemistry, Deputy Head of School	Chair of SAT. Organisation and Culture WG (Chair). Data collection for benchmarking.	Member of SEFS AS Steering Group. Member of EAT and other School committees.

(ii) ***An account of the self-assessment process****, with details of:*

- *when the team was established;*
- *how often the team has met;*
- *what the focus of the meetings has been;*
- *how the team has consulted with members of the department and students;*
- *what consultation (if any) has occurred with staff or individuals outside of the institution/department;*
- *what the internal and external reporting mechanisms of the team are.*

The SAT was established in November 2016 and, within its first year, held seven meetings on a bi-monthly basis. The SAT initiated data collection immediately, focussing on the period 2013-2016, which represented the most recent and complete dataset available from School and University records. The College of Science, Engineering and Food Science (SEFS) provided extra administrative support (three months, shared with another School) to help with the early stages of data treatment. The SAT was divided into Working Groups (WG) with responsibility for different sections of the application. Each WG met regularly to review and interpret the relevant data within the context of current policies and procedures. Reports from each WG were discussed at SAT meetings, used to shape the content of this application, and helped formulate the School's Athena SWAN (AS) Action Plan.

Staff and students in the School were consulted via a combination of surveys and focus groups. The SAT designed and conducted online staff and UG student surveys in February and March 2017. 82% of staff participated in the survey (51 respondents, 87% female, 81% male) and 71% of fourth-year UG students (69% female, 72% male). In August, a PG student focus group (6 participants; 3 male, 3 female) looked at support for career development and the transition to postdoctoral research. Three of the School's five female postdoctoral researchers were available to participate in focussed interviews on support for career progression of female chemists and action plan brainstorming. Feedback from the focus groups and interviews was used, along with results from the surveys, to further inform our Action Plan, particularly in relation to addressing the key challenge of the marked drop in female representation when progressing from PhD to postdoctoral researcher.

Throughout the whole application process, the SAT received extensive support from Ann King and Anne-Marie Curtin in the UCC AS Project Office, who assisted with data collection and analysis, attended SAT meetings and arranged mock assessment panels for SAT members. Within UCC, we have discussed our application with colleagues in the School of Biological Earth and Environmental Sciences (BEES), the SEFS AS Steering Group, Helen O'Donoghue (HR Business Manager) and Dr Bríd Cronin (Assistant Registrar, Medical Sciences Division, University of Oxford). ECU's Athena SWAN (Ireland) Manager, Dr. Sarah Fink, presented to our SAT on SMART action planning. Our School Manager observed an AS panel assessment at the (Equality Challenge Unit (ECU) in September 2017.

Reports from the SAT meetings are presented and discussed at School Board meetings, where they are a standing item on the agenda. The SAT also reports directly to the SEFS AS Steering Group, which in turn reports to the Institutional Steering Group. Draft versions of the application and Action Plan were circulated among the School Board for feedback and approval in October 2017. Feedback on the application was also received from colleagues in both AS Steering Groups.

Finally, the SAT has been active in promoting the AS principles within the School and SEFS. All SAT members completed a Living Equality And Diversity online training programme and also attended UCC's first Unconscious Bias Awareness Workshop. In order to raise awareness of our participation in AS, we have created a dedicated set of webpages, distributed posters and participated in a short film highlighting key actions.

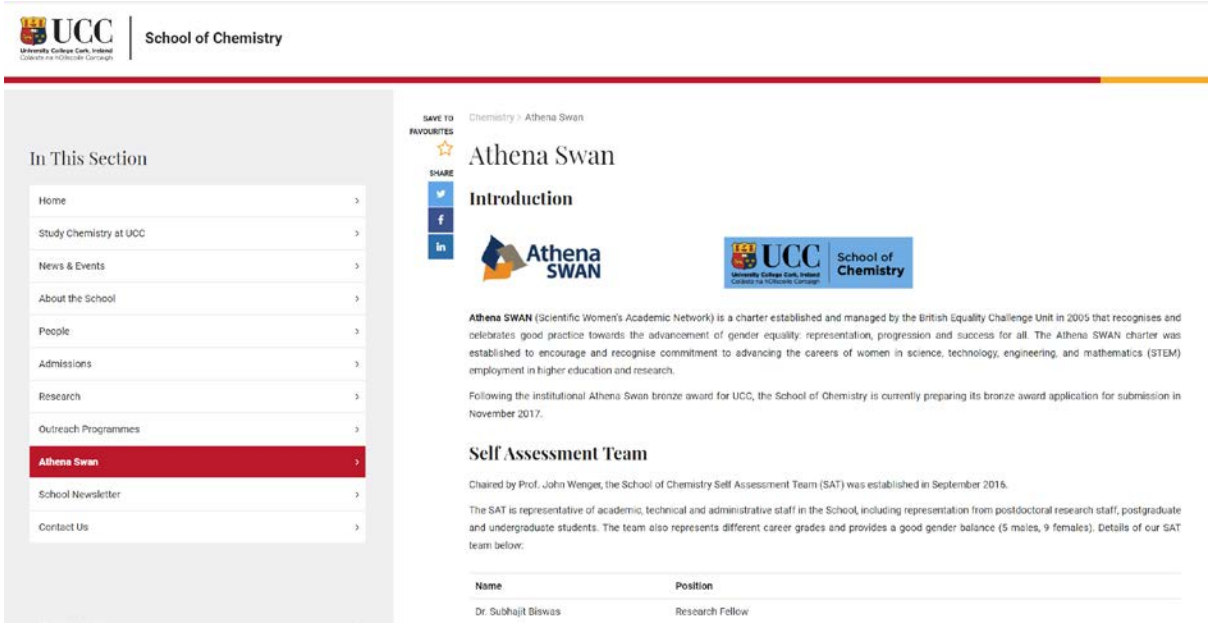

Figure 2.1.1. Screenshot of the School of Chemistry webpages promoting our Athena SWAN involvement.

(iii) ***Plans for the future of the SAT****, including:*

- *how often the team will continue to meet;*
- *how the SAT intends to monitor implementation of the action plan;*
- *how the SAT intends to interact with staff;*
- *whether the membership of the group will change;*
- *what the internal and external reporting mechanisms of the team will be.*

The SAT will be renamed as the School's Athena SWAN Committee and will meet bi-monthly. The composition of the Committee is expected to remain unchanged until January 2019 when the new Head of School (HoS) will replace Prof. Justin Holmes on the Committee. The School's Executive Advisory Team (EAT) will review Committee membership at this time and may introduce changes in response to workload demands and shifting patterns of staff and students. Whenever changes are made, we will ensure that all staff and students continue to be represented and that the composition of the Committee moves towards equal membership of men and women (currently, the SAT is 62% female).

The overall implementation of the Action Plan will be managed and co-ordinated by the Chair of the AS Committee, with support from the HoS and School Manager. WG leaders will be assigned responsibility for monitoring and ensuring progress of the actions in their specified areas. The Committee will discuss any issues, review targets if necessary, and offer guidance to the WG leaders. In order to measure progress, the Committee will continue to collect and analyse all relevant data, and conduct annual UG student surveys and biennial staff surveys (**Action 2.1-1**).

The Committee will communicate details of the Action Plan by posting regular updates on the School's AS webpages and in the quarterly newsletter. The Committee will also continue to report to the School Board and SEFS AS Steering Group and prepare an annual report for presentation at the School Assembly (**Action 2.1-2**).

Action 2.1-1
Collect and analyse all relevant staff/student data and conduct UG student and staff surveys.

Action 2.1-2
Promote Athena SWAN principles and activities and deliver an annual report on progress of the Action Plan to the School Board, School Assembly and SEFS AS Steering Group.

923 WORDS

3. A picture of the department and its composition: recommended 2000 words

3.1 Brief description of the department:

To set the context for the application, please provide a brief description of the department, including its size, and outline any significant and relevant features. For example, recent changes of departmental structure or management, the existence of any quasi-autonomous groups or the management of split-site arrangements.

The School of Chemistry at UCC is a research-led centre of excellence, delivering a range of high quality undergraduate and postgraduate degree programmes. The School occupies part of the Kane Building on the main UCC campus, which contains teaching and research laboratories, offices, lecture theatres, meeting rooms and technicians' workshops. The research activity of the school has expanded over the last 20 years and we now have additional research laboratories in three of UCC's flagship research institutes - Tyndall National Institute, Environmental Research Institute and Analytical and Biological Chemistry Research Facility. Academic staff are well accustomed to managing these split-site arrangements in a practical and efficient manner to ensure that researchers are well integrated in both places. As a whole, the School benefits greatly from the newer facilities and interdisciplinary research environment provided by the institutes.

As of September 2016[1], the School had 20 academic staff (three female), five administrative and support staff (four female), nine technical officers (one female) and 17 research staff (five female). Females represent only 25% of staff in the School and improving on this is a significant challenge that we aim to address with our AS Action Plan. The gender balance among our student population is much better, with 57% female at UG level (273 out of 481 students) and 50% female at PG level (58 out of 116 students) in 2016.

In June 2017 we changed our name from the Department of Chemistry to the School of Chemistry, in keeping with the University's re-organisation strategy. The new School structure provides a more inclusive framework for staff and students to operate effectively and proactively in their core academic and research activities. One of the main advantages is that the HoS is appointed through a selection process, rather than by rotation among professorial staff. This extends the eligibility pool to senior lecturers and opens up the possibility for more female academic staff to apply. An organogram of the School is shown in Figure 3.1.1.

[1] Reported staff and student data is based on headcount from September 2013 to September 2016. This period represents the most recent complete dataset available.

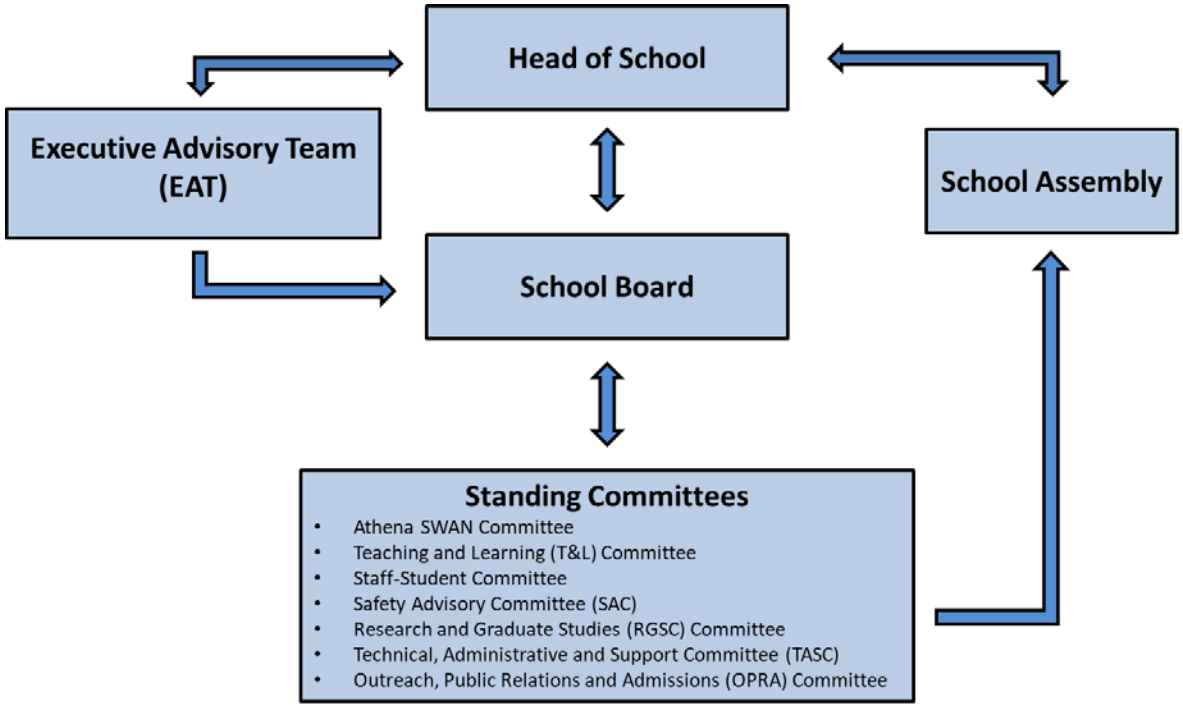

Figure 3.1.1: School of Chemistry organisational structure.

The HoS is responsible for all academic and administrative functions within the School. The EAT, which includes the five academic Heads of Discipline (Table 3.1.1), meets monthly to advise and assist the HoS on management and leadership of the School. The EAT reports to the School Board, which consists of all academic staff, the School Manager, Chief Technical Officer and representatives from research staff, UG and PG students. The School Board meets monthly to make decisions on various academic and administrative matters. Seven standing committees, each focussing on specific aspects of our operation, also meet regularly and report to the School Board with recommendations for action. We make a conscious effort to ensure that all stakeholders are represented in our Committees by involving an appropriate range of staff, UG and PG students.

The School Assembly is an annual meeting of all staff and students of the School where new activities and initiatives are presented, achievements are highlighted, strategic planning and finances are discussed. The Assembly helps to promote an atmosphere of co-operation within the School and also serves as a good social event.

Table 3.1.1. Composition of the School of Chemistry Executive Advisory Team (EAT).

Role	Category of Staff	Gender
Head of School	Academic	Male
Deputy Head of School*	Academic	Male
Head of Analytical Chemistry	Academic	Male
Head of Inorganic Chemistry	Academic	Male
Head of Organic Chemistry	Academic	Male
Head of Pharmaceutical Chemistry	Academic	Female
Head of Physical Chemistry	Academic	Male
Chair of Research and Graduate Studies Committee	Academic	Male
Chair of Teaching and Learning Committee	Academic	Male
Elected Academic Representative	Academic	Male
School Manager	Administrative	Female
Technical Officer	Technical	Male

* Currently the Head of Physical Chemistry.

3.2 Student Data

(i) *Numbers of men and women on access or foundation courses*

N/A.

(ii) *Numbers of men and women undergraduate students* - *full- and part-time. Provide data on degree attainment and completion rate by gender.*

The School offers four full-time undergraduate degree programmes, each of four years duration. In first year, students enrol through one of the first-year entry streams – Chemical Sciences (CK406) or Biological and Chemical Sciences (CK402) – and undertake fundamental training across a range of scientific subjects (chemistry, physics, mathematics and biology). At the start of second year, students select their degree programme from a range of options, which depend on the initial entry stream (Figure 3.2.1). CK402 students choose from a total of ten degrees (six biology, three chemistry, and science education), while CK406 students have four options (three chemistry, and science education). In addition, students from the Physics and Astrophysics entry stream (CK408) can also opt to take the Chemical Physics (CPY) degree, which is run jointly with the Department of Physics.

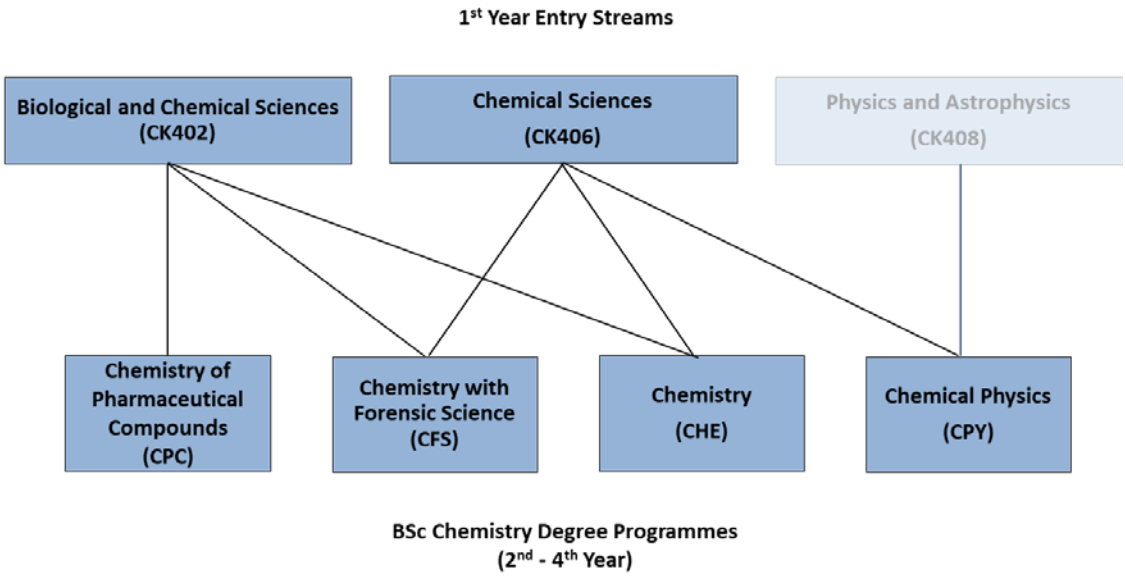

Figure 3.2.1. The BSc degree programmes offered by the School of Chemistry and their associated entry points.

The numbers and percentage of female and male students across all years of our BSc degree programmes are shown in Figure 3.2.2. There is a clear increase in female participation from 51% to 57% over the reporting period. The detailed gender breakdown of student numbers provided in Table 3.2.1 shows that this increase is, to a large extent, explained by higher numbers of females entering the CK402 entry stream.

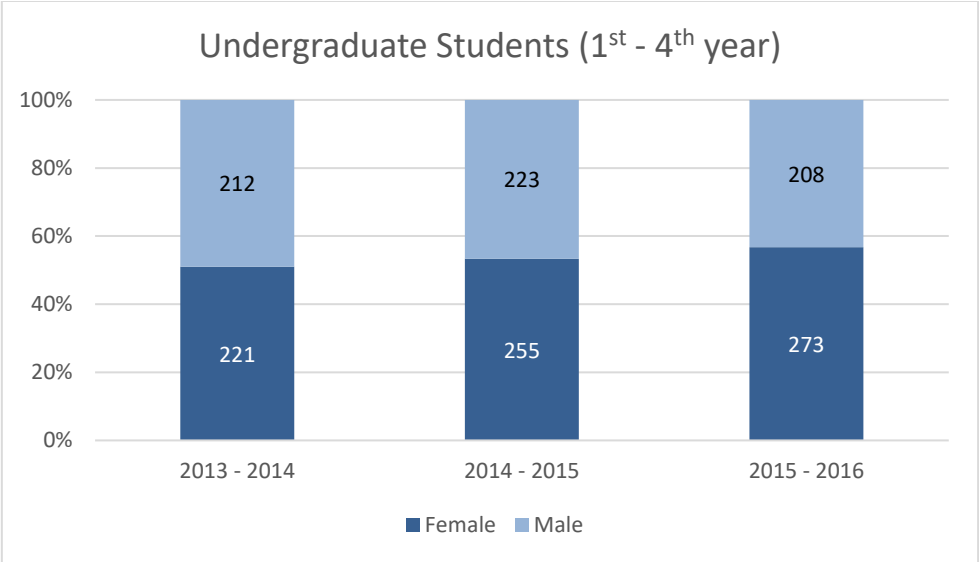

Figure 3.2.2. Numbers of female and male students on all four BSc programmes offered by the School of Chemistry. Actual percentage values are given in Table 3.2.1.

Table 3.2.1. Gender distribution of female (F) and male (M) UG students across all BSc Chemistry degree programmes, 2013-2016.

	2013 - 2014				2014 - 2015				2015 - 2016				
	F	M	Total	% F	F	M	Total	% F	F	M	Total	% F	Average %F
1st Year													
Biological and Chemical Sciences (CK402)	119	94	213	**56**	139	98	237	**59**	138	84	222	**62**	**59**
Chemical Sciences (CK406)	13	14	27	**48**	14	16	30	**47**	13	15	28	**46**	**47**
Total	132	108	240	**55**	153	114	267	**57**	151	99	250	**60**	**57**
2nd Year													
BSc Chemical Physics (CPY)	1	3	4	**25**	0	4	4	**0**	4	5	9	**44**	**23**
BSc Chemistry (CHE)	15	21	36	**42**	21	22	43	**49**	24	27	51	**47**	**46**
BSc Chemistry of Pharmaceutical Compounds (CPC)	13	9	22	**59**	12	12	24	**50**	12	9	21	**57**	**55**
BSc Chemistry with Forensic Science (CFS)	12	5	17	**71**	9	4	13	**69**	10	5	15	**67**	**69**
Total	41	38	79	**52**	42	42	84	**50**	50	46	96	**52**	**51**
3rd Year													
BSc Chemical Physics (CPY)	2	4	6	**33**	1	3	4	**25**	0	3	3	**0**	**19**
BSc Chemistry (CHE)	9	16	25	**36**	13	18	31	**42**	22	18	40	**55**	**44**
BSc Chemistry of Pharmaceutical Compounds (CPC)	6	15	21	**29**	12	8	20	**60**	9	13	22	**41**	**43**
BSc Chemistry with Forensic Science (CFS)	9	6	15	**60**	11	1	12	**92**	9	4	13	**69**	**74**
Total	26	41	67	**39**	37	30	67	**55**	40	38	78	**51**	**48**
4th Year													
BSc Chemical Physics (CPY)	1	2	3	**33**	2	4	6	**33**	1	2	3	**33**	**33**
BSc Chemistry (CHE)	5	12	17	**29**	9	13	22	**41**	12	15	27	**44**	**38**
BSc Chemistry of Pharmaceutical Compounds (CPC)	10	9	19	**53**	6	14	20	**30**	10	7	17	**59**	**47**
BSc Chemistry with Forensic Science (CFS)	6	2	8	**75**	6	6	12	**50**	9	1	10	**90**	**72**
Total	22	25	47	**47**	23	37	60	**38**	32	25	57	**56**	**47**
Overall Total	221	212	433	**51**	255	223	478	**53**	273	208	481	**57**	**54**

Over the years 2013-2016, the level of female representation in our undergraduate chemistry degrees compares favourably with other universities (Table 3.2.2). It should be noted that the Higher Education Authority (HEA) figures for this period do not reflect the full picture for UCC as they do not include the CK402 entry stream, which has a higher proportion of females. When these students are included, the female representation rises from 49% to 54%.

Table 3.2.2. Female representation in UG chemistry degrees at Irish universities. Data obtained from the Irish Higher Education Authority (HEA) and averaged over 2013-2016.

	Female	Male	Total	% Female
Dublin City University	149	125	274	54
University of Maynooth	51	43	94	54
Trinity College Dublin	55	67	122	45
University College Dublin	64	62	126	51
University of Limerick	59	39	154	38
University College Cork*	**118**	**122**	**240**	**49**
University College Cork**	**250**	**214**	**464**	**54**

*Only includes first year students in the CK406 entry stream.
**Includes first year students in both CK402 and CK406 entry streams.

Figure 3.2.3 highlights some clear differences in the percentage of female students on the various degree programmes. The CPC and CHE degree programmes generally have a good gender balance, with the most recent figures reflecting close to equal representation. CFS consistently has the highest percentage of female students, while CPY has the lowest. The CFS degree has a high intake of students from the female-dominated CK402 entry stream, while the majority of CPY students enter through the male-dominated CK408 (Physics and Astrophysics) entry stream. The CPY degree also has an enrolment limit of 10 students per year, which explains the low numbers. We intend to continue monitoring the gender balance in all of our degree programmes and also use the annual UG surveys to help identify any reasons for gender differences in the choice of degree programme (**Action 2.1-1**).

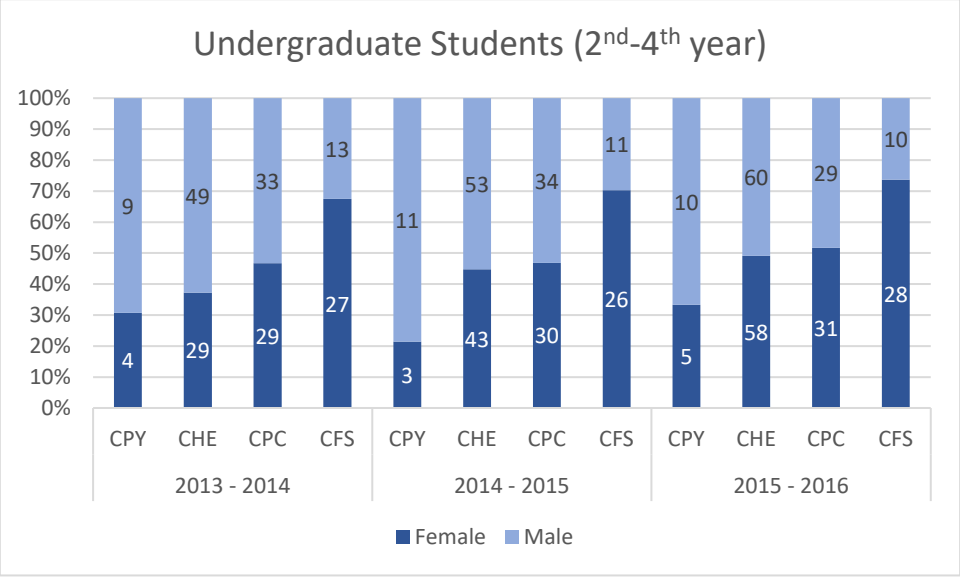

Figure 3.2.3. Gender breakdown of students on each of the BSc Chemistry programmes. The numbers of female and male students are given in the bars, actual percentage values are given in Table 3.2.1.

A detailed breakdown of degree attainment and completion rates by gender is provided in Table 3.2.3. The distribution of final grades varies from year to year and according to degree programme. A clearer picture of performance by gender across all degree programmes is shown in Figure 3.2.4. Across the three years, the overall proportion of students obtaining first class honours (1H) is 21% for females and 33% for males, which compares to the national average of 21% for both genders (HEA). Our data is strongly influenced by the much higher number of males achieving a 1H grade in 2014-2015, for which there is no clear explanation. Interestingly, the proportion of students obtaining either a 1H or 2H1 grade is 54% for both females and males, suggesting no real gender difference over a wider range of achievement. These values compare very well with the national average of 54% and 57% for males and females respectively.

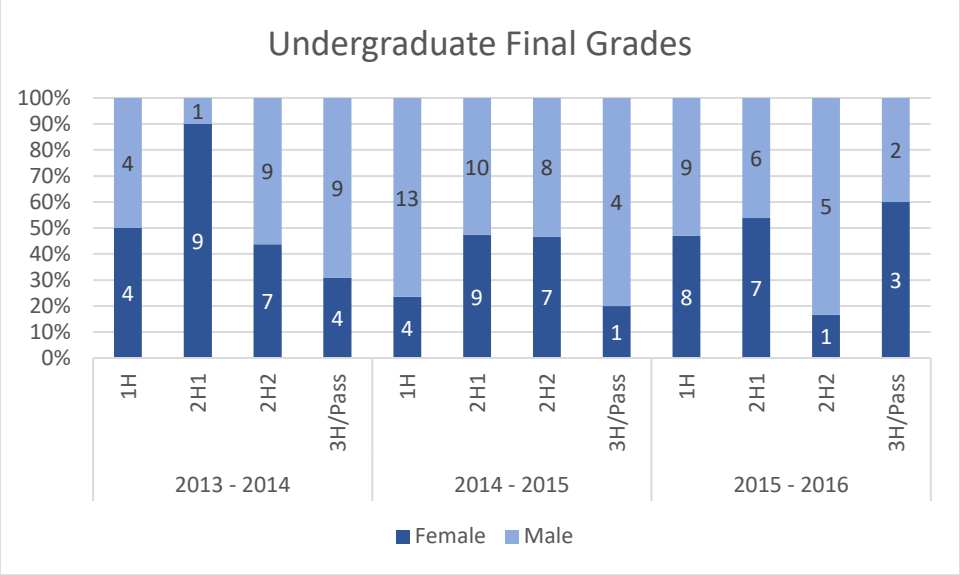

Figure 3.2.4. Degree attainment by gender across all BSc Chemistry degree programmes, 2013-2016. The number of students achieving a certain grade is given in the bars.

Table 3.2.3. Degree attainment and completion rates for all BSc Chemistry degree programmes, 2013-2016.

Degree		2013 - 2014				2014 - 2015				2015 - 2016			
		F	M	T	**% F**	F	M	T	**% F**	F	M	T	**% F**
CPY	**Enrolled**	1	2	3	**33**	2	4	6	**33**	1	3	4	**25**
	1H	1	1	2	**50**	0	1	1	**0**	0	2	2	**0**
	2H1	0	1	1	**0**	1	3	4	**25**	0	0	0	
	2H2	0	0	0		1	0	1	**100**	1	0	1	**100**
	3H/Pass	0	0	0		0	0	0		0	0	0	
	Completed (%)	100	100	100		100	100	100		100	66	75	
CHE	**Enrolled**	7	15	22	**32**	11	16	27	**41**	15	21	36	**42**
	1H	1	1	2	**50**	4	5	9	**44**	3	5	8	**38**
	2H1	2	0	2	**100**	4	4	8	**50**	3	4	7	**43**
	2H2	2	3	5	**40**	1	2	3	**33**	4	2	6	**67**
	3H/Pass	2	7	9	**22**	0	2	2	**0**	2	2	4	**50**
	Completed (%)	100	73	82		82	81	82		80	62	69	
CPC	**Enrolled**	11	9	20	**55**	6	14	20	**30**	13	9	22	**59**
	1H	0	2	2	**0**	0	5	5	**0**	4	2	6	**67**
	2H1	6	0	6	**100**	3	3	6	**50**	3	2	5	**60**
	2H2	4	5	9	**44**	2	5	7	**29**	2	3	5	**40**
	3H/Pass	0	1	1	**0**	1	0	1	**100**	1	0	1	**100**
	Completed (%)	91	89	90		100	93	95		77	78	77	
CFS	**Enrolled**	8	3	11	**73**	9	6	15	**58**	12	5	17	**71**
	1H	2	0	2	**100**	0	2	2	**0**	1	0	1	**100**
	2H1	1	0	1	**100**	1	0	1	**100**	1	0	1	**100**
	2H2	1	1	2	**50**	4	1	5	**80**	6	0	6	**100**
	3H/Pass	2	1	3	**67**	0	2	2	**0**	0	0	0	
	Completed (%)	75	67	73		56	83	67		67	0	47	
Overall Completed (%)		**89**	**79**	**84**		**79**	**88**	**84**		**76**	**58**	**67**	

The CPC and CPY degrees have average completion rates of around 90%. The values for CHE and CFS are somewhat lower and exhibit a significant drop in 2015-2016. Reasons for non-completion include failure in any year of the programme, transfer to another course, and deferral. Fifty-two per cent of male and female respondents (44 in total) to the UG student survey indicated that they would have benefitted from individual mentoring by a member of staff. The School is keen to improve the completion rate for all students and we will therefore introduce an academic mentoring scheme for years 2-4, with the aim of improving completion rates, as well as the performance of all UG students (**Action 3.2-1**). Furthermore, since the CFS degree has a consistently lower completion rate, we plan to conduct a comprehensive

review of this programme to identify and remedy any issues associated with course content and delivery (**Action 3.2-2**).

Action 3.2-1
Introduce an academic mentoring scheme for 2nd - 4th year students to help improve student completion rates and overall performance.

Action 3.2-2
Conduct a comprehensive review of the CFS degree programme to identify and remedy any issues associated with course content and delivery.

(iii) ***Numbers of men and women on postgraduate taught degrees*** *– full- and part-time. Also provide data on degree attainment and completion rate by gender.*

The School offers four taught postgraduate degrees: MSc Analysis of Pharmaceutical Compounds (MSc APC), MSc Analytical Chemistry (MSc AC), MSc Environmental Analytical Chemistry (MSc EAC) and a Postgraduate Diploma in Analytical Chemistry (PGDip AC). During the reporting period, female participation across all programmes averaged 44%, but showed a gradual decrease from 52% (2013-14) to 35% (2015-16) (Table 3.2.4). We will continue to monitor the gender balance on these courses as part of **Action 2.2-1** and also establish an MSc student focus group to identify possible reasons for the drop in female participation (**Action 3.2-3**). The gender distribution of grades shows that females performed significantly better than their male counterparts, especially in terms of first class honour grades obtained (63% for females, 33% for males). Completion rates for all degrees is close to 100% with only two students failing over the reporting period - one male in MSc AC (2013-2014) and one male in PGDip AC (2015-2016).

Table 3.2.4. Number of students and degree attainment by gender across all postgraduate taught degree programmes, 2013-2016.

Degree		2013 - 2014				2014 - 2015				2015 - 2016			
		F	M	T	**% F**	F	M	T	**% F**	F	M	T	**% F**
MSc APC	**Enrolled**	5	0	5	**100**	3	4	7	**43**	2	7	9	**22**
	1H	4	0	4	**100**	2	0	2	**100**	1	3	4	**25**
	2H	1	0	1	**100**	1	4	5	**20**	1	4	5	**20**
	Pass	0	0	0		0	0	0		0	0	0	
MSc AC	**Enrolled**	7	9	16	**44**	4	7	11	**36**	5	8	13	**38**
	1H	5	3	8	**63**	2	2	4	**50**	3	4	7	**43**
	2H	2	3	5	**40**	2	5	7	**29**	2	3	5	**40**
	Pass	0	2	2	**0**	0	0	0		0	1	1	**0**
MSc EAC	**Enrolled**	0	2	2	**0**	2	0	2	**100**	2	0	2	**100**
	1H	0	1	1	**0**	1	0	1	**100**	1	0	1	**100**
	2H	0	1	1	**0**	1	0	1	**100**	1	0	1	**100**
	Pass	0	0	0		0	0	0		0	0	**0**	
PGDip AC*	**Enrolled**	0	0	0		0	0	0		0	2	2	**0**
	1H	0	0	0		0	0	0		0	0	0	
	2H	0	0	0		0	0	0		0	0	0	
	Pass	0	0	0		0	0	0		0	1	1	**0**
Total Students		**12**	**11**	**23**	**52**	**9**	**11**	**20**	**45**	**9**	**17**	**26**	**35**

* All PGDip AC students, except two in 2015-2016, transferred to the MSc AC degree after passing semester 1 exams. The data for these students is included in the MSc AC degree.

(iv) *Number of men and women on postgraduate research degrees* – *full- and part-time. Also provide data on completion rate by gender.*

The School has a small number of full-time MSc research students. There is a higher proportion of males (61% overall), but the overall numbers are low and variable (Table 3.2.5). All MSc research degrees conducted in this reporting period were completed within two years, i.e. 100% completion rate.

Table 3.2.5. Numbers of postgraduate MSc research students, 2013-2016.

	Female	Male	Total	% Female
2013 - 2014	2	5	7	**29**
2014 - 2015	2	2	4	**50**
2015 - 2016	3	4	7	**43**

The vast majority of our postgraduate researchers are PhD students. The proportion of female PhD research students over the reporting period is consistently higher (57%) and at least on a par with female participation in our undergraduate degree courses (Table 3.2.6). Our female PhD numbers are also higher than the 48% national average (HEA, 2016).

Table 3.2.6. Numbers of full-time and part-time PhD research students, 2013-2016.

	Full-time				**Part-time**			
	Female	Male	Total	**% Female**	Female	Male	Total	**% Female**
2013 - 2014	48	38	86	**56**	1	0	1	**100**
2014 - 2015	48	36	84	**57**	0	0	0	
2015 - 2016	45	34	79	**57**	0	0	0	

The structured PhD programme typically lasts four years and the majority of students complete the degree (submission and defence of thesis) within five years. Completion rates for female students entering the PhD programme in 2009-2011 are 86% (54% within 5 years), compared to 79% for males (52% within 5 years). The overall trend shows a gradual increase in total completion rates (83% to 88%) and number of students finishing in less than 5 years (55% to 65%). We attribute this improvement to the introduction of an annual performance review of PhD students in 2010, which provides feedback and guidance on timely completion of the thesis.

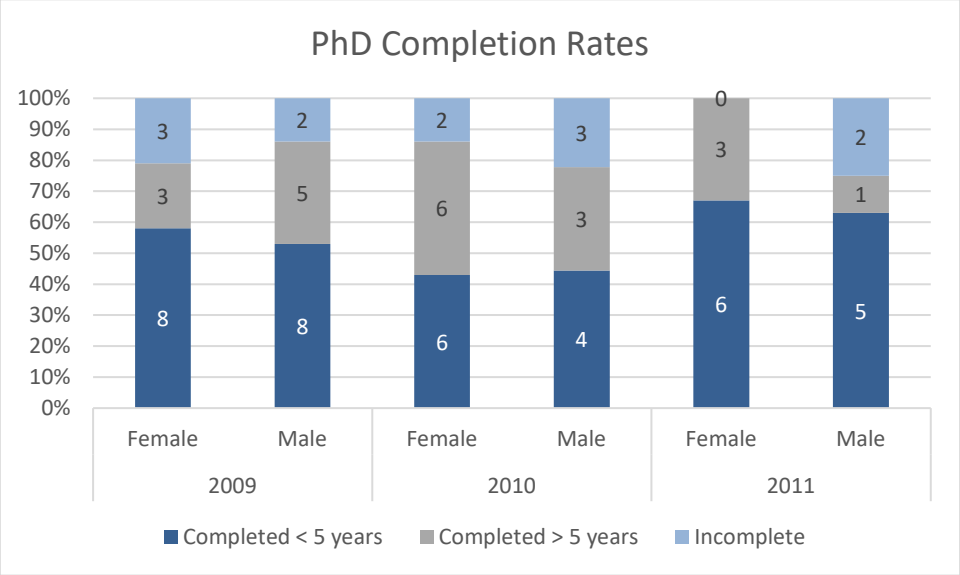

Figure 3.2.5. Completion rates (%) for PhD students starting in 2009-2011. The numbers of female and male PhD students are shown in the bars.

(v) ***Intake of undergraduates by gender*** *– full- and part-time. Comment on any gender differences and how the department supports underrepresented students.*

Intake of students into the CK406 entry stream is fairly stable, with an average of 47% female over the three years (Figure 3.2.6). The CK402 entry point has a consistently higher proportion of females (average 59%), in keeping with current trends for biological-based subjects at third level.

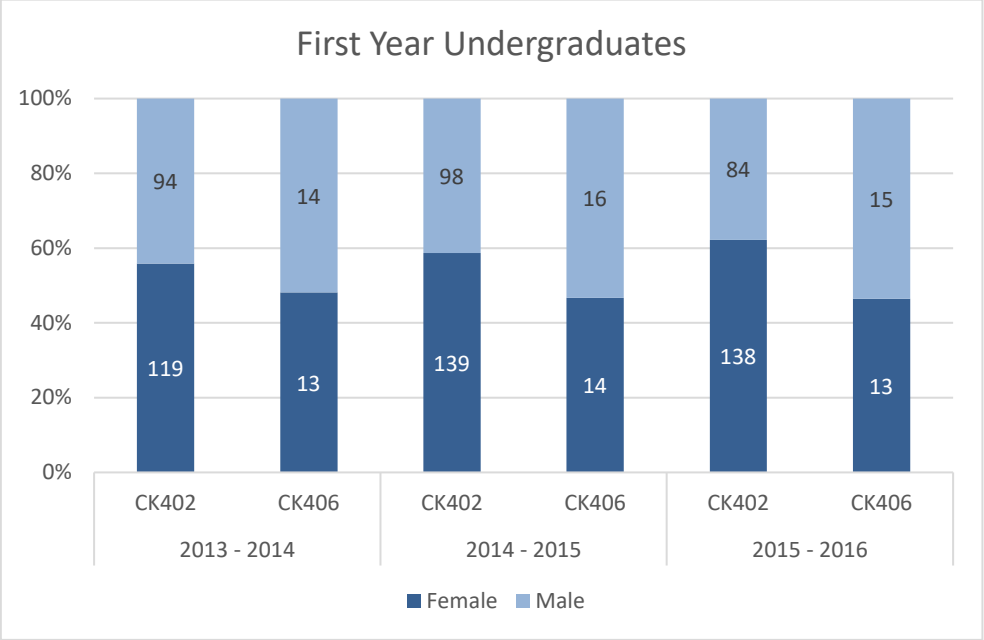

Figure 3.2.6. Numbers and percentages of female and male students in the CK402 and CK406 entry streams over the period 2013-2016. Actual percentage values are given in Table 3.2.1.

(vi) ***Ratio of course applications, offers and acceptances by gender for postgraduate taught and postgraduate research degrees*** *– comment on any differences between application and success rates.*

During 2013-2016, females accounted for 60-65% of applications for our taught postgraduate degrees (Table 3.2.7). The proportion of male and female applicants receiving offers was very similar; however, a significant gender difference was observed in the acceptance rates (19% for females, 46% for males). The reason for this is unclear since the reasons for declining offers are not collected by the national Postgraduate Applications Centre. However, it should be noted that students can apply for many courses in one application and could have numerous options available to them. The MSc focus group, consisting of students on the current postgraduate taught programmes, will try to identify reasons for poor acceptance rates by females (**Action 3.2-3**).

Table 3.2.7. Numbers of applications, offers, acceptances and success rates (%) for postgraduate taught degrees, by gender, (2013-2016).

	Applications		Offers (# and %*)		Acceptances (#) and Success Rate (%**)	
	F	M	F	M	F	M
2013 - 2014	81	49	54 (67%)	32 (65%)	10 (19%)	15 (47%)
2014 - 2015	76	49	67 (88%)	42 (86%)	13 (19%)	20 (48%)
2015 - 2016	100	53	92 (92%)	46 (87%)	17 (18%)	20 (44%)

*% of applicants offered a place (for each gender separately)
**% of offerees who accepted the offer (for each gender separately)

Females accounted for 54% of new postgraduate research students (MSc and PhD) during 2013-2016 (Table 3.2.8). Many of these students obtained their own funding through scholarship awards (e.g. Irish Research Council), while others were offered a position by the supervisor. Currently, the filling of MSc and PhD positions funded by research grants is handled by supervisors and details of the applications and offers are incomplete. Going forward we will ensure that all MSc and PhD research positions funded through research grants are advertised and records of applications, offers and acceptances are logged (**Action 3.2-4**).

Table 3.2.8. Numbers of new postgraduate research students in the School of Chemistry during 2013-2016.

		Female	Male	Total	% Female
2013 - 2014	MSc	3	4	7	43
	PhD	10	5	15	67
	Total	**13**	**9**	**22**	**59**
2014 - 2015	MSc	0	2	2	0
	PhD	12	7	19	63
	Total	**12**	**9**	**21**	**57**
2015 - 2016	MSc	3	4	7	43
	PhD	9	9	18	50
	Total	**12**	**13**	**25**	**48**

Action 3.2-3
Conduct a MSc student Focus Group to identify reasons for poor female acceptance rates on postgraduate taught degrees.

Action 3.2-4
Advertise all MSc and PhD research positions funded through research grants and record applications, offers and acceptance rates.

3.3 Staff data

(i) ***Proportion of all categories of academic staff by gender*** *– Look at the career pipeline and comment on and explain any differences between men and women. Where relevant, comment on the transition of technical staff to academic roles. Identify any issues in the pipeline at particular grades/levels.*

UCC's researcher and academic grade structure is set out in Figure 3.3.1. Movement from researcher to academic grades is possible through open competition for lecturer positions that become available. One of the female SAT members successfully performed this transition in early 2017.

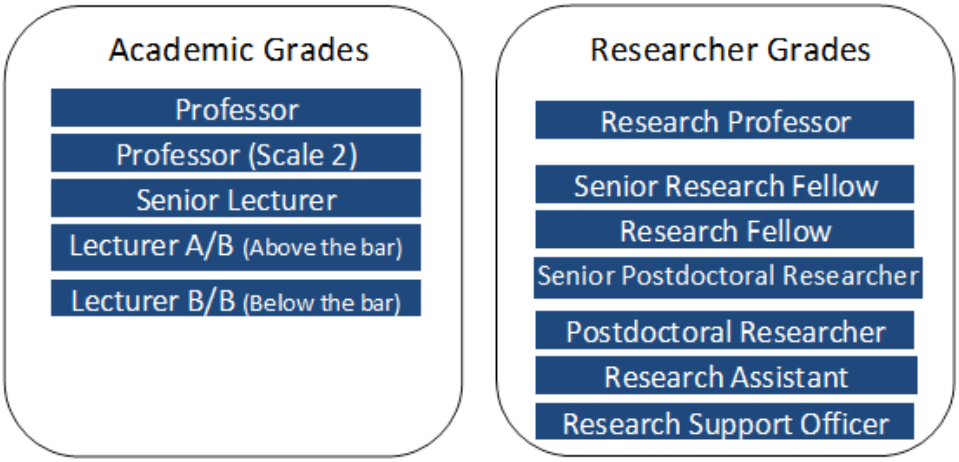

Figure 3.3.1. UCC Academic and Researcher Grades

As of September 2016, three of the 20 academics in the School are female. The female Professor is a joint appointment in the Schools of Chemistry and Pharmacy, and currently UCC's Vice President for Research and Innovation. The female Lecturer (B/B) is shared 50:50 with Pharmacy, along with two male lecturers. Table 3.1.1 shows that the female:male ratio improved in the last three years (from 3:20 to 3:17), but this is due to loss of male staff. The female:male ratio is equivalent to that at other Irish university Chemistry departments, which averaged 3.5:20 in 2015 (HEA, 2016).

Table 3.1.1. Full academic staff figures separated by gender and disaggregated by appointment.

	2013 -2014			**2014-2015**			**2015 - 2016**		
	F	M	**% F**	F	M	**% F**	F	M	**% F**
Professor	1	5	**17**	1	4	**20**	1	3	**25**
Professor (Scale 2)	0	0	0	0	1	**0**	0	1	**0**
Senior Lecturer	0	2	**0**	0	2	**0**	0	2	**0**
Lecturer (A/B)	1	10	**9**	1	9	**10**	1	8	**11**
Lecturer (B/B)	1	3	**25**	1	3	**25**	1	3	**25**

One of Chemistry's four full Professors is female (25%); across all UCC, women comprise 17% of UCC's full Professors (2014), and 19% across the sector (HEA, 2014), based on quarterly staff statistics for December 2013. For benchmarking within the sector, we selected the Schools of Chemistry at University College Dublin (UCD) and Trinity College Dublin (TCD), as they have similar numbers of staff and students. The proportion of female academic staff is low in all three Schools (TCD 25%, UCC 15%, UCD 11%). Low application rates from females is one of the factors that could contribute to this. Measures to increase the number of female applications for academic positions are described below and in the Action Plan (**Actions 4.1-1, 4.1-2, 4.1-7**).

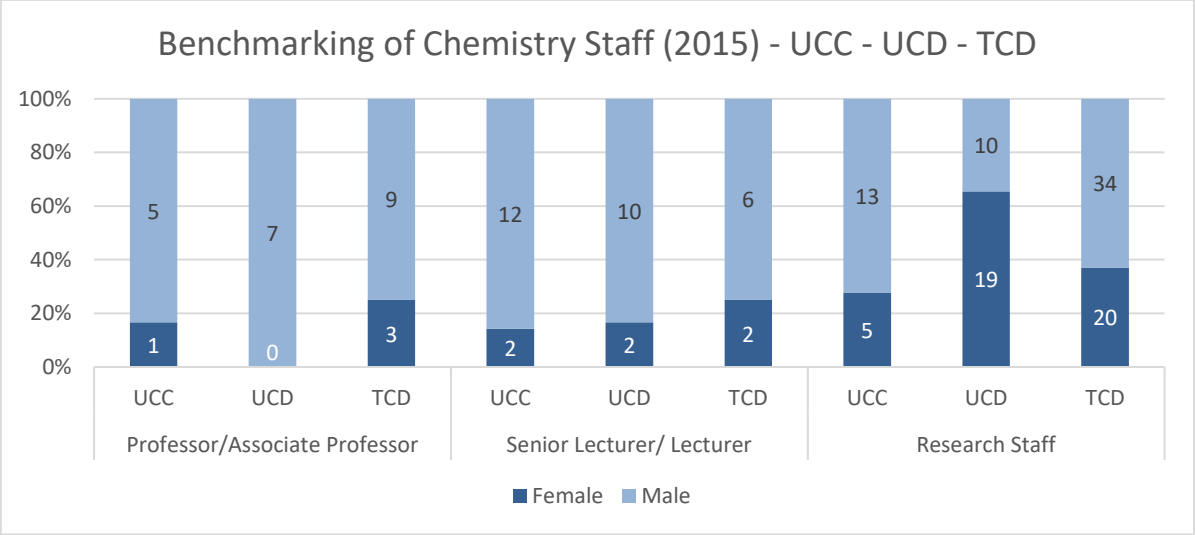

Figure 3.3.2. Comparison of academic and research staff profiles in the Schools of Chemistry at UCC, UCD and TCD for 2015. Numbers are based on a headcount basis (not full-time equivalent).

The overall number of research staff has remained steady (16-18) over the reporting period, with some year-on-year variation between the various categories (Figure 3.3.3). On average, 28% of research staff are female, lower than TCD (37%) and UCD (65%) in 2015 (Figure 3.3.2). However, looking at the broader picture, our School is in line with UK universities where 25% of Postdoctoral Researchers (PDRs) are female (Royal Society of Chemistry, 2015). On a more positive note, it is encouraging to see that females represent 50% of our most senior researchers (Research Fellow category).

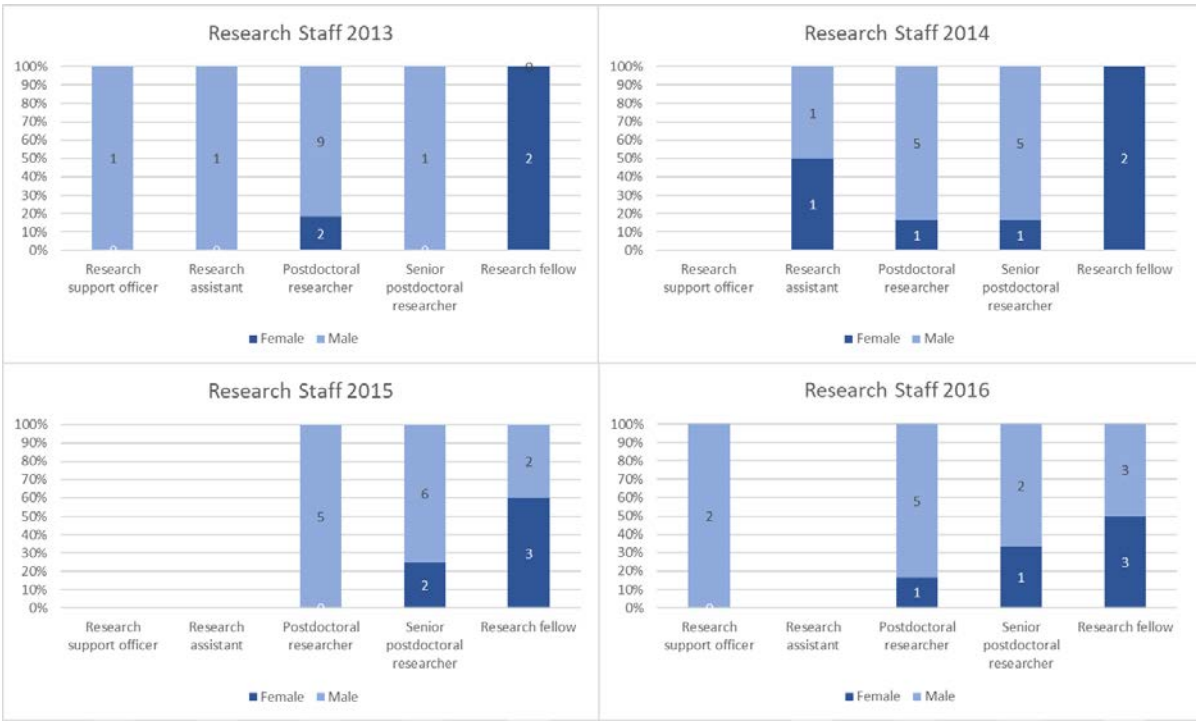

Figure 3.3.3. Gender distribution of research staff in all categories, 2013-2016. Numbers of each gender are given in the bars.

The career pipeline for students and staff in our School has a classic "scissors" shape which shows significant attrition between PhD and researcher level (Figure 3.3.4). This is consistent with The Royal Society of Chemistry (RSC, 2015) figures which indicate that women are lost predominantly at the postgraduate-postdoctoral researcher interface. Feedback from our postgraduate and postdoctoral researcher focus groups highlighted numerous factors which influence the decision to pursue postdoctoral research and particularly affect women who have (or anticipate having) caring responsibilities: lack of job security in relation to the private sector, difficulty in securing fellowships, limited availability of academic positions.

Addressing attrition at this transition point is a key focus of our action plan. We will improve recruitment procedures and ensure the implementation of a formal professional development plan (PDP) for each researcher (**Actions 4.1-3, 4.1-8, 4.2-3**). We will also conduct exit interviews with PhD students to acquire feedback on their experience and career plans (**Action 3.3-1**), and establish a "Researchers' Forum" to facilitate the exchange of career planning information and experiences between PhD students, postdoctoral researchers and academic staff (**Action 3.3-2**).

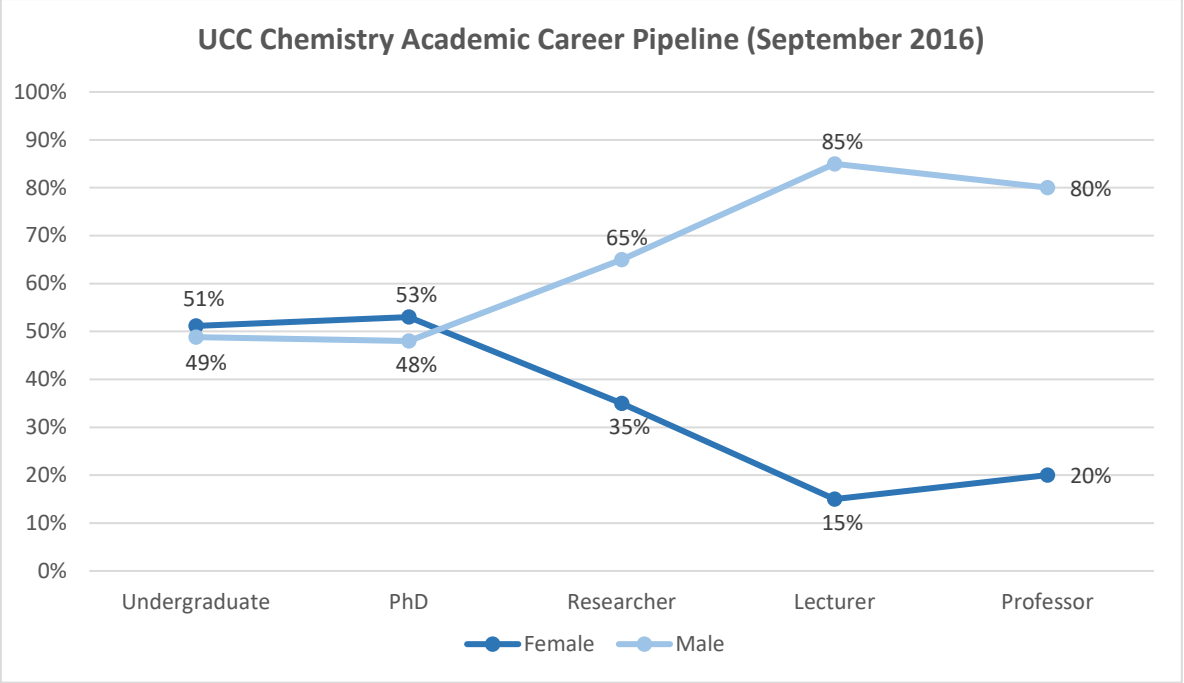

Figure 3.3.4. Career pipeline for students and staff in the School of Chemistry (September 2016). Student and staff numbers are given in the respective tables in the text. The Researcher category includes postdoctoral researchers, senior postdoctoral researchers and research fellows. Actual numbers are in Table 3.1.1.

Action 3.3-1
Conduct exit interviews with PhD students to acquire feedback on their experience and career plans.

Action 3.3-2
Establish a forum for researchers to allow exchange of advice and information between PhD students, research and academic staff.

(ii) Leavers by grade and gender *– comment on the reasons staff leave the department.*

A total of 22 staff left the School during 2013-2016 (Table 3.3.2). Five of these were researchers (four male, one female), whose fixed-term contracts had expired. Eight staff retired: two male academics, three male Technical Officers, three administration/support staff (two female, one male). The other nine staff resigned for various reasons. One male lecturer returned to his country of origin, while a male professor accepted a position in another Irish university, taking three experienced researchers with him. It is believed that the four remaining researchers resigned to take up offers of permanent positions in industry, but this is not clear as we do not keep formal records of reasons for leaving.

Table 3.3.2. Number of leavers separated by gender and staff category.

	2013 - 2014		2014 - 2015		2015 - 2016	
	Female	**Male**	**Female**	**Male**	**Female**	**Male**
Academic	0	0	0	0	0	4
Researcher	0	2	2	3	1	4
Administration/Support	0	0	2	1	0	0
Technical	0	0	0	2	0	1

Going forward, we plan to keep a formal record of reasons for leaving and use this information to track career destinations of our researchers **(Action 3.3-2)**.

Action 3.3-3
Record reasons for leaving and track destinations of departing staff.

(iii) *Proportion of men and women academic and research staff on fixed-term, open-ended, zero-hour and permanent contracts*

– comment on what is being done to ensure continuity of employment and address any other issues. Where relevant, comment on any academic staff employed on a casual or adjunct basis.

All academic positions within the School are permanent. The School also has two adjunct Professors, both male, who are appointed for a period of three years. One female researcher is on a Contract of Indefinite Duration, while all other research staff are on fixed-term contracts, which depend on availability of funding. In order to ensure continuity of employment, supervisors are active in mentoring and supporting research staff in their efforts to secure further funding, e.g. through targeted research fellowships. This was reflected in the staff survey where 6 of 10 researcher respondents (60%) expressed satisfaction with opportunities to discuss training and mentoring with their supervisor (2 females (67%), 6 males, (60%).

2626 WORDS

4. Supporting and advancing women's careers: recommended 5000 words

4.1 Key career transition points

(i) ***Recruitment*** *– comment on job application, short-listing, offer and acceptance rates by gender and grade. Comment on how the department's recruitment processes ensure that women are encouraged to apply. Additionally, please comment on how the department's processes and criteria for short-listing and selection comply with, and build upon, the institution's policies for equality and diversity, and recruitment and selection.*
If the dataset is large, please break it down into the different disciplines or units.

The School works with HR to ensure that recruitment of staff adheres to UCC's '*Equality in Recruitment Policy*'. From 2013 to 2016, the School recruited nine new members of permanent staff and recorded gender-specific data for each stage of the process (Table 4.1.1). The proportion of female applications for the four academic positions was low (16%). However, the shortlisting rate (27%) was similar to those for male applicants (34%). Though numbers are low, women enjoyed higher success rates than men. For technical posts, proportionately fewer women (20%, five women) than men (37%, 17 men) were shortlisted. This is a concern, which we will monitor closely. All School staff involved in recruitment are receiving training in unconscious bias awareness (**Action 4.2-5**).

To encourage more applications from women, we will undertake an assessment of recruitment documents (job descriptions and information packs) to ensure that the wording is appropriate and free from gender bias. Information will be added about the various support mechanisms provided by the School and University, such as flexible working arrangements and help with re-integration after maternity/paternity leave (**Action 4.1-1**).

Following the UCC AS Action Plan, we will also appoint "Search Champions" to identify potential female applicants for academic posts (**Action 4.1-2**). The Search Champions will utilise networks of contacts to widen the recruitment search, as well as encourage and promote female applications. We will use this approach to recruit for two senior positions – Chair in Analytical Chemistry and Professor of Sustainable Materials – opening in 2019 when the existing professors retire.

Table 4.1.1. Statistics for recruitment of staff to permanent positions between 2013 and 2016.

	No. Applicants (%)		No. Shortlisted (%)*		No. Offered**	
	F	M	F	M	F	M
Academic	11 (16%)	59 (84%)	3 (27%)	20 (34%)	1 (33%)	3 (15%)
Technical	25 (35%)	46 (65%)	5 (20%)	17 (37%)	1 (20%)	3 (18%)
Administrative	15 (83%)	3 (17%)	7 (47%)	0 (0%)	1 (14%)	0 (0%)

*% of applicants shortlisted (for each gender separately)
**% of shortlisted applicants who were offered and accepted the position (for each gender separately)

Recruitment of research staff in UCC is managed locally by Principal Investigators (PIs) and details of applications and shortlisting were not recorded for the 21 positions (6 female, 29%) filled during the reporting period. We plan to introduce a new structured procedure for tracking the whole recruitment process so that a gender breakdown is available at each stage

(application, shortlisting, interviewing, offer and acceptance) (**Action 4.1-3)**. It is envisaged that the improved transparency and updated recruitment documents (**Action 4.1-1**) will lead to a greater number of female applications for research positions.

Action 4.1-1
Update the School's recruitment documents to ensure that the wording is appropriate and the various support mechanisms provided by the School and University are included.

Action 4.1-2
Appoint "Search Champions" from the School to identify potential female applicants for academic posts.

Action 4.1-3
Introduce a new structured procedure for researcher recruitment to improve transparency of the process and ensure that information on gender breakdown is available at each stage.

(ii) Induction *– describe the support provided to new staff at all levels.*

New staff are encouraged to attend the University's formal orientation programme and informal Orientation Café events. Our survey indicated that, among six recently hired respondents who participated in the orientation programme, most found it useful (83%; 3 women, 2 men). The School also provides support at local level to ensure appointees become used to their role and new working environment. New staff are welcomed by the HoS and their line manager, given a tour of the facilities and introduced to School colleagues. Each new staff member is assigned a mentor by the HoS to provide advice, guidance and support. Mentoring of research staff is provided by PIs. The HoS identifies any training and personal development needs and meets regularly with new staff during the one-year probation period.

The staff survey contained positive feedback on the role that colleagues played in local orientation, but only five of ten recently hired respondents expressed satisfaction with the overall induction process (4 male, 1 female). In response to this, we are currently preparing an induction booklet for new staff containing essential information about the School facilities, policies, procedures, staff contact details, committees, research and administrative supports (**Action 4.1-4**). This comprehensive booklet further supports our efforts to ensure that new staff settle into their roles and become fully integrated into the School and all its activities.

Action 4.1-4
Develop a School of Chemistry Induction Booklet for new staff.

(iii) ***Personal Development Review*** *– describe any schemes (formal or informal) which are currently in place for staff at all levels, including post-doctoral researchers, to discuss, support and encourage their career progression. Where possible, comment on any consideration of promotion and work–life balance during the review. If available, provide details about the frequency and take-up of these schemes. Comment about any training provided for staff carrying out reviews and staff feedback about the review process.*

All academic, technical and administrative staff take part in the University's *Performance and Development Review System (PDRS)*. Training for reviewers and reviewees is provided by HR; uptake in the School was low in the most recent PDRS round (4 participants, 1 as a reviewee). Reviews are carried out with the line manager (HoS, Head of Discipline, School Manager) every two years with the aim of promoting career development and performance management. Personal and professional goals, work-life balance issues and training requirements can be discussed as part of the review process. The HoS prepares a summary of staff training requirements for the whole School and sends it to HR.

Staff survey feedback on the PDRS was mixed, with 43% of women and 15% of men stating they did not benefit from the process (27 respondents, 7 female, 20 male). 29% of female staff did not feel the review process provided them with a chance to discuss career progression, compared with 0% of male staff. In addition, 44% of respondents (43% female, 45% male) felt the review process did not provide an opportunity to discuss work-life balance issues.

Before the next PDRS round in Spring 2018, the HoS will encourage 100% uptake of HR training for School participants. Through EAT and School Board, and through a presentation to all staff, HoS will promote the PDRS as a platform for an open discussion, specifically on issues relating to career progression and work-life balance. We will solicit participants' feedback on the process after the PDRS round (**Action 4.1-5**).

Research staff are not covered by the PDRS and PIs are therefore responsible for performance and development review of researchers. Feedback from the staff survey showed that the majority of 10 researcher respondents were satisfied with opportunities to discuss and review workload (2 female (67%), 6 male (86%)), training and mentoring opportunities (2 female (67%), 4 male (57%)) and work-life balance (3 female (100%), 6 male (86%)) with their supervisor. However, the survey also revealed a low level of uptake in the preparation of a formal professional development plan; 3 of 8 respondents had plans in place (2 males (33%), 1 female (50%)). We address this issue in Section 4.2.

Action 4.1-5
Increase School uptake of HR training for PDRS, and promote the PDRS as a platform for open discussion, including career progression and work-life balance issues.

(iv) ***Promotion*** *– provide data on staff applying for promotion, and comment on applications and success rates by gender and grade. If possible, comment on any evidence of a gender pay gap in promotions at any grade. Provide details on the promotions process, including how candidates are identified, and how the process and criteria are communicated to staff. Comment on the criteria for promotion, including detail about how career breaks are taken into account. Comment also on if and how the full range of work-related activities (including administrative, pastoral and outreach work) are taken into consideration. Provide details of any training or mentoring offered to become eligible for or improve success at promotion, both in advance of an application and with regards to staff who have been unsuccessful. Where possible, comment on the perceptions staff hold of the promotions process.*

Promotion and progression is based on academic performance in the following areas: (i) Research and Scholarly Standing, (ii) Teaching and Examining and (iii) Contribution to the School, College, University and wider Community (including administrative, pastoral and outreach activities). For Lecturers, progression across the bar is merit-based and awarded when an applicant achieves the published benchmarks. Promotions to Senior Lecturer and Professor (Scale 2) are competitive processes, where applications are assessed and scored against benchmarking criteria. Allowances are made for leave, including maternity leave.

There have been limited promotion opportunities in UCC since 2008, due to restrictions imposed under the Irish government's Employment Control Framework. Academic promotions re-commenced in 2011, but on a strictly limited basis. Table 4.1.2 provides a summary of Chemistry applications for recent progression/promotion rounds. No female candidates were eligible to apply for progression across the bar or promotion to Professor Scale 2. One female was eligible to apply for promotion to Senior Lecturer in 2012-2013, but did not apply.

Table 4.1.2. Details of applications for academic Progression and Promotions.

Promotion/Progression	Applicants		Promoted	
	F	M	F	M
Progression across the bar (2012 - 2013)	0	1	0	0
Promotion to Senior Lecturer (2012 - 2013)	0	4	0	1
Promotion to Professor Scale 2 (2014 - 2015)	0	2	0	1

Responses to the staff survey show that 50% of female and 44% of male academics are dissatisfied with the promotion criteria and the transparency of the process. 50% of male academics are unclear as to how career breaks are considered in promotion decisions.

An institutional review of UCC's academic promotions schemes is currently underway. The review is considering the need for clearer guidelines for decision-makers on how to take into account periods of leave and part-time work in progression/promotion decisions. The HoS has urged all academic staff to become involved and contribute to the review process.

When there is a university-wide call for applications, the School encourages staff to attend the information sessions given by HR. Academics decide themselves, with support from mentors and colleagues, whether to apply for progression or promotion. In the staff survey

50% of female and 56% of male academics agreed there is sufficient support within the School to help prepare and apply for promotion (18 respondents, 16 male, 2 female). The School will conduct a review of its academic mentoring scheme with the aim of improving the level of support offered by previously successful candidates to promotion-seeking colleagues (**Action 4.1-6**).

Action 4.1-6
Conduct a review the School's academic mentoring scheme to better support for colleagues seeking promotion.

(v) Selection committees *– Provide details of how selection committees for recruitment, promotion and retention are formed. Comment on how gender balance is taken into consideration. Comment on how the issue of 'committee overload' is addressed where there are small numbers of women.*

HR oversees the formation of selection committees for recruitment of academic, technical and administrative staff in accordance with University policies on equality, diversity and conflict of interest. Committees are typically made up of Chemistry and SEFS staff with relevant experience who have also completed the recruitment training course delivered by HR. Selection committees for academic positions also include an external assessor with relevant discipline-related expertise.

Over the reporting period, the level of female representation on selection committees was 22% for academic (four posts), 36% for technical (four posts) and 60% for administrative (one post) positions. We will target a minimum gender balance of 40% (male and female) on future academic selection committees. To achieve this, we will invite committee members from UCC Departments/Schools outside the College of SEFS, e.g. from the School of Pharmacy. Our analysis also indicates that 75% of external advisors appointed to academic selection committees in 2015-2016 were male. Going forward, the School will be proactive in searching for and appointing suitably qualified female external assessors. (**Action 4.1-7)**.

The recruitment of researchers is handled locally by the PI. Accurate information on the gender breakdown of selection committees is not available; however, given the low percentage of female academic staff in Chemistry, the committees were overwhelmingly male dominated. Given the attrition of women in our career pipeline at the transition of PhD to research posts, it is a priority for the School to improve gender balance on future researcher selection committees (**Action 4.1-8)**. We will extend the eligibility criteria to include research fellows and senior postdoctoral researchers in the School of Chemistry, as well as female staff in other UCC Departments/Schools. This will help reduce the potential for committee overload for SEFS female staff.

Action 4.1-7
Increase female representation on selection committees for **academic** posts.

Action 4.1-8
Increase female representation on selection committees for **research** posts.

4.2 Career Development

(i) Support given to students (at any level) for academic career progression

– comment and reflect on support given to students at any level to enable them to make informed decisions about their career (including the transition to a sustainable academic career).

The School strives to provide a supportive environment for undergraduate students throughout their degree. First year students are assigned an academic mentor and can benefit from our highly popular (100-150 participants per year) Peer Assisted Learning (PAL) programme, a student-to-student support scheme featuring tutorials given by more senior UG chemistry students. The PAL sessions help new students to understand the subject and prepare them for assignments and exams. The PAL tutors also improve their knowledge of chemistry while developing skills in teaching and hosting group discussions. Academic support for 2nd-4th year students is provided by Year Co-ordinators and will be strengthened by the introduction of a new academic mentoring scheme (**Action 3.2-1**), which will cover career options.

Our degree programmes provide training in transferable skills (report-writing, oral presentations, team-working) through targeted 3rd year modules in scientific communication and information literacy skills (CHE and CPY), work placement (CPC) and field work (CFS). In order to gain experience of the academic research environment, 3rd year students are encouraged to apply for funding to carry out summer research projects in the School. Over the period 2013-2016, 12 students (7 female, 5 male) secured research bursaries (via SEFS or the School) and all of them are now PhD students in the School.

Feedback from the final year student survey shows a high level of satisfaction (72% of females, 89% of males) with the supportive and learning environment provided by the School. Some students requested improved information on jobs and postgraduate study and in response we have already introduced a talk at the start of final year outlining options for postgraduate taught courses and PhD research (**Action 4.2-1**). We are also working with SEFS on a careers event called "Life After 4th Year" which will cover postgraduate study, research, funding opportunities and CV preparation.

At postgraduate level, the structured PhD programme is comprised of supportive and developmental elements. Chemistry offers six discipline-specific postgraduate modules on a range of topics including problem-solving skills, internship in the pharmaceutical sector and teaching and demonstrating skills. PhD students are encouraged to take modules that provide training on general and transferable skills such as communication and outreach, technical writing (reports, theses and research papers) and scientific presentations. There are also opportunities for postgraduate students to get involved in School outreach programmes (Section 4.4) which can further develop teaching and communication skills.

Most supervisors provide opportunities for PhD students to present their work at conferences, attend training courses or visit research laboratories at collaborating institutes in Ireland and abroad. These experiences teach PhD students about the important role that networking and interaction with the wider scientific community plays in academic career progression.

The PG student focus group, consisting of three female and three male PhD students, recognised the value of the supports provided by the School. However, the group felt that the

supports were mainly targeted at ensuring completion of the degree and additional measures to assist with career development and planning would be welcome. We will use the "Researcher's Forum" (**Action 3.3-2**) to facilitate the exchange of career planning information between PhD students, postdoctoral researchers and academics. We also plan to organise an annual Career Development Workshop with invited speakers from academia and industry covering a range of topics such as career pathways, skills and training, entrepreneurship and networking (**Action 4.2-2**).

Action 4.2–1
Promote opportunities for postgraduate study and PhD research to final year undergraduate students.

Action 4.2–2
Organise an annual Career Development Workshop with invited speakers from academia and industry.

(ii) Support given to postdoctoral researchers for academic career progression
– comment and reflect on support given to postdoctoral researchers to assist in their career progression.

UCC has a dedicated Post Doc Development Hub which provides personal and professional development training as part of the Research Career Framework. A range of supports are offered including, workshops, on-line learning and targeted training programmes. Researchers should work with their supervisors to prepare a professional development plan (PDP) based on an analysis of training needs and identification of the key transferable skills required. Teaching and supervision/mentoring of research students is also encouraged and can be included in the plan.

Although the PDP is recognised as a valuable career development tool, the staff survey indicated that only three (1 female, 2 male) of our eight postdoctoral researchers who responded (2 female, 6 male) have prepared a professional development plan. The Postdoctoral Researcher (PDR) Focus Group expressed dissatisfaction with generally poor level of supervisor participation in the preparation and updating of the PDP. Going forward, the School will ensure that each postdoctoral researcher prepares a PDP with their supervisor at the start of their contract and updates it regularly (**Action 4.2-3**). We will also actively encourage our postdoctoral researchers to participate in training, workshops and other HR activities, e.g. information sessions on research fellowship opportunities to facilitate the transition from PDR to research fellow and onto an academic career.

Action 4.2–3
Ensure that postdoctoral researchers prepare a professional development plan with their supervisor at the start of their contract and update it regularly.

(iii) ***Training*** *– describe the training available to staff at all levels in the school, including any equality and diversity training, leadership training, or other training opportunities related to career progression. Provide details of uptake and how existing staff are kept up-to-date with training.*

The University's HR Department provides a range of training opportunities for different categories of staff at all levels, focussing on leadership and management, personal effectiveness, and career planning. Lecturers and PhD-qualified technical staff can further develop their teaching skills by taking the Postgraduate Certificate in Teaching and Learning at UCC. Career development for research staff is provided by the Post Doc Development Hub, which offers training in up to 20 different topics including grant-writing, supervision and project management.

Figures for uptake of Chemistry staff in selected training programmes from 2013 to 2016 are provided in Table 4.2.1. Female participation in Leadership and Management programmes is low, but reflects the small number of female staff in management positions. We will encourage all eligible female staff (existing and new hires) to apply for the Aurora women-only Leadership Development Programme (**Action 4.2-4**).

Table 4.2.1. Participation of Chemistry staff in selected training programmes, 2013 – 2016.

	Female	Male	% Female
Aurora Leadership Development Programme	2	N/A	100
Development Programme for Line Managers by HR Managers	2	4	33
Developing University Leaders	0	1	0
Exploring Leadership for Heads	0	3	0
Leadership Development for Heads of Schools	0	1	0
Leadership Development for Research Staff	0	1	0
Leadership Forum	0	1	0
LEAN White Belt Training	1	0	100
Mentor/Mentee Workshop	1	1	50
Post Doc Development Hub training (only since 2015)	3	6	33
Postgraduate Certificate in Teaching and Learning	1	9	10
UCC Development Programme for Managers	0	1	0

Building on the Athena SWAN ethos, the School is committed to ensuring that all staff undergo training in equality and diversity. Staff will be required to complete the online training module provided by the Living Equality and Diversity (LEAD) programme, and also attend unconscious bias awareness workshops delivered by HR (**Action 4.2-5**).

Action 4.2–4
Encourage eligible female staff to apply for the Aurora women-only Leadership Development Programme.

Action 4.2–5
Ensure that all staff undergo training in equality, diversity and unconscious bias.

4.3 Flexible working and managing career breaks

(i) Cover and support for maternity and adoption leave *– explain what the department does (beyond the institutional maternity policy package) to support staff before they go on maternity leave. Discuss arrangements for covering work during absence, arrangements to enable staff to keep in touch during absence, and how staff are supported on their return. Comment on any differences in maternity leave provision for staff on fixed-term contracts.*

The School is committed to engaging very positively with the new support measures introduced at the institutional level for staff on family leave. The HoS (male) and School Manager (female) have both participated in one-to-one coaching on how to manage maternity and paternity leave. School staff have been briefed on the range of enhanced supports available. Since 2016, female staff can also avail of the Maternity Coaching Service which provides one-to-one coaching for women before, during and after maternity leave. A support package (€5,000 grant) for academics returning from maternity/adoptive leave commenced in September 2016. To date, one female member of Chemistry staff has availed of this support.

The HoS or School Manager meets with staff before they go on family leave to ensure that staff understand the process and engage with the university support system. Topics discussed include: (i) the appropriate level of contact during leave; (ii) "keep in touch" days which allow line managers and staff to plan contact days during the leave period; (iii) required level of cover during the leave period.

The School works with academic and research staff to ensure adequate cover is in place for maternity and adoptive leave. When necessary, support is requested from SEFS to cover any extra costs that may be required, e.g. teaching cover and laboratory supervision. As an example, in 2016, one of our female Technical Officers was unable to perform laboratory work during pregnancy and SEFS funded a part-time post during the months before leave.

In contrast, the level of cover and maternity leave support for externally funded research staff is variable and subject to the policy of their funding body. Feedback from the staff survey indicated that 50% (2 female and 3 male) of staff who took family leave had to cover some of their responsibilities during the leave period itself. Some funding agencies do not provide cover and we will work with the university research office to lobby funding agencies to review and improve their family leave policies (**Action 4.3-1**).

The PG and PDR Focus groups also highlighted health and safety issues that prevent staff from conducting labroratory work during pregnancy. This was seen as having a very negative impact on the decision of PhD students to progress to postdoctoral research. In seeking to address this important issue, we have started to confer with other Chemistry Departments in Ireland and UK on best practice in dealing with procedures for researchers that are unable to work in laboratories during pregnancy (**Action 4.3-2**).

The School has several supports to assist staff returning from maternity leave, such as use of accrued annual leave to allow a phased return and flexible working hours to manage childcare arrangements. The PhD focus group noted the lack of breastfeeding facilities in the School. Information on the location of nearby breastfeeding facilities on campus will be communicated in the induction booklet (**Action 4.3-3**).

Action 4.3-1
Work with the university research office to lobby funding agencies to review and improve their family leave policies.

Action 4.3-2
Confer with colleagues in other Chemistry departments on best practice in dealing with procedures for researchers that are unable to work in laboratories during pregnancy.

Action 4.3-3
Communicate facilities and options available, such as location of breastfeeding facilities on campus.

(ii) ***Maternity return rate*** *– provide data and comment on the maternity return rate in the department and, where possible, the proportion of staff remaining in post 6 and 12 months after return.*

Three Chemistry staff (all researchers) took maternity leave during 2013-2016. All three returned to work and remained in post more than 12 months later.

(iii) ***Paternity, adoption and parental leave uptake*** *– comment on the uptake of paternity leave, adoption leave and parental leave by gender and grade. Discuss whether the rates of uptake for this leave have changed. Provide details on the department's paternity package and arrangements.*

Prior to 2016, no statutory entitlement to paternity leave was provided, but UCC offered three days paid paternity leave and facilitated annual leave in conjunction with paternity leave. Two male staff members of the School benefitted from this during the reporting period and the School supported any additional leave requested. In 2016 a new statutory entitlement to 2 weeks paid paternity leave was introduced. One male member of academic staff availed of this in 2016. The staff survey shows 0% of staff felt taking family leave negatively impacted their career (2 female and 4 male respondents).

No staff in the School availed of unpaid parental or adoptive leave during the assessment period.

(iv) ***Flexible working*** *– comment on whether there is a formal or informal system for flexible working in place. Provide data on application and success rates by gender and grade, commenting on any disparities. Give details of the support and training provided for managers in promoting and managing flexible working arrangements, and of how the department raises awareness of the options available.*

Many colleagues within the School work flexible hours on an informal basis and family needs are accommodated where possible. 35% (3 female and 11 male) of staff survey respondents indicated that they have negotiated flexible working hours on an informal basis within the School and 78% (11 female and 24 male) stated that they would be comfortable discussing flexible working arrangements with their line managers. However, only 48% (8 female 14 male) feel flexible working is supported in the School (8 female, 14 male). To raise awareness

and encourage uptake of flexible working, we will promote the options available in recruitment material (**Action 4.1-1**), the induction booklet (**Action 4.1-4**) and through PDRS (**Action 4.1-5**).

Action 4.3-4
Raise greater awareness and encourage uptake of the flexible working options available to all staff via recruitment material, induction booklet and PDRS.

4.4 Organisation and culture

(i) ***Representation of men and women on committees*** *– provide a breakdown by committee and explain any differences in gender representation. Explain how potential members are identified and comment on any consideration given to gender equality in the selection of representatives. Identify the most influential committees in the department and comment on how women are encouraged to participate in these and other influential external committees. Comment on how the issue of 'committee overload' is addressed where there are small numbers of women.*

School committees consist of an appropriate mix of academic, technical, administrative and research staff. UG and PG students are also represented in several committees (School Board, RGSC, Staff-Student Committee, OPRA). Potential members are identified on the basis of relevant experience, interest in the job, existing workload and gender balance. Appointments are subsequently made by the HoS following consultation with the individuals involved, EAT and the School Board.

The representation of men and women on School committees is summarised in Table 4.4.1. Female representation across the committees is 26%, in line with the School average of 25% for female staff. TASC has three female administrative/support staff, thus accounting for its 60% female representation. OPRA has a female Technical Officer and two female students, which reflects our efforts to attain a better gender balance by including female UG and PG students in relevant committees. Two committees had female Chairs during the reporting period – TASC, which was chaired by the School Manager (2013-2016) and the Teaching and Learning Committee, chaired by Dr Orla Ni Dhubhghaill in 2013-2014 and 2014-2015 (also a member of EAT during that period.)

Table 4.4.1 Representation of Female (F) and Male (M) members on School Committees for 2013-2016.

	2013 - 2014			2014 - 2015			2015 - 2016		
	F	M	%F	F	M	%F	F	M	%F
School Board	6	18	25	6	18	25	6	18	25
Executive Advisory Team (EAT)	3	7	30	3	7	30	2	9	18
Technical, Administrative & Support Committee (TASC)	3	3	50	3	2	60	3	2	60
Teaching & Learning Committee	2	11	15	2	11	15	2	11	15
Research & Graduate Studies Committee	1	11	8	3	8	27	3	8	27
Safety Advisory Committee	1	4	20	1	5	17	1	6	14
Staff-Student Committee	6	8	43	3	8	27	6	15	29
Outreach Public Relations and Admissions (OPRA)	2	4	33	3	3	50	3	3	50

(ii) ***Workload model*** *– describe the systems in place to ensure that workload allocation— including pastoral, administrative and outreach responsibilities—is fair, and whether this is taken into account at personal development review and in promotion criteria. Comment on the rotation of responsibilities; for example, those with a particularly heavy workload (such as leading on preparing an Athena SWAN submission) and those that are particularly valuable for an individual's career progression. State whether staff are aware of the details of the workload model and its outcomes, whether they consider it to be transparent and fair, and whether there are any gender differences in this regard.*

Allocation of teaching responsibilities is managed by the Heads of Discipline following consultation with the individuals involved. Great care is taken to ensure that teaching workloads are spread evenly and individuals are not overburdened. Newly appointed academics are provided with a reduced teaching and administrative load for the first 3 years in order to allow research groups to be established and support career development. The membership and Chairs of the committees are rotated every 2-3 years to allow staff to gain experience in different roles.

The University operates an Academic Workload Distribution Model (AWDM), which is a self-assessment of workload carried out by academics. However, the model is unpopular with academic staff in Chemistry (and across UCC), with 52% (2 females, 8 males, 19 respondents) disagreeing that the model enhances transparency and fairness. The AWDM does not fairly capture information across the School such as teaching contributions, administrative duties and the full range of research activities. The School therefore plans to develop its own workload model based on consultations with staff (**Action 4.4.1**). The model will be used by the HoS and Heads of Discipline to support allocation of teaching, administrative, pastoral and outreach activities, whilst also taking into account the level of research activity.

Action 4.4-1
Develop a local model for staff workload.

(iii) ***Timing of departmental meetings and social gatherings*** *– provide evidence of consideration for those with caring responsibilities and part-time staff; for example, what the department considers to be core hours and the systems in place to prevent particular staff being excluded from specific activities.*

School Committee meetings are either scheduled before the start of the academic year or organized weeks/months in advance to ensure ease of attendance by the maximum number of participants. The majority of meetings are held between 10 am and 4 pm, with the exception of School Board meetings which have traditionally started at 3 pm for scheduling reasons. The staff survey data shows 83% (47 respondents, 100% female, 76% male) agree that key meetings should be held between the core hours of 10 am and 4 pm. In response, we have already introduced a School policy to ensure that all committee meetings are held within these hours and scheduled sufficiently well in advance to allow those with caring responsibilities to attend (**Action 4.4-2**).

Social gatherings are held at various times, but generally within the core hours of 10 am to 4 pm. A small number of events, such as the School BBQ and Christmas parties, are held during evening hours, but staff are notified sufficiently far in advance to enable them to attend. The staff survey indicates that there is a high level of satisfaction with the timing of social gatherings (0 out of 13 females and 3 out of 33 males (9%) disagree).

Action 4.4-2
Ensure that School committee meetings are held between the core hours of 10 am and 4 pm.

(iv) **Visibility of women as role models** *– comment on the gender balance of speakers and chairpersons in seminars, workshops and other relevant activities. Comment on publicity materials, including the department's website and images used.*

The School has a pro-active approach to enhancing the visibility of women as role models. Our website maintains a very good gender balance in terms of news items (Figure 4.4.1), images, student profiles and videos hosted on our YouTube channel. Publicity materials (brochures, banners and pop up stands) used at outreach events are also gender balanced. The activities and achievements of our female staff, students and alumni are promoted through our social media outlets and newly established quarterly newsletter, which has a mailing list of over 700 recipients. Future editions of the School newsletter will include a regular section on Athena SWAN related activities (**Action 4.4-3**).

Photo: Hannah Hayes, 3rd year BSc Chemistry of Pharmaceutical Compounds, receiving the first AbbVie Student Prize

Photo: PhD student Jessica Doherty.

Figure 4.4.1. Screenshots from news items posted on the School website announcing awards received by female undergraduate and postgraduate students.

Female role models are highly visible within the School. During 2013-2016, 75% of our UG prizes were awarded to female students. In her role as Vice President for Research and Innovation, Prof. Anita Maguire regularly hosts and chairs a large number of events in the School and across the University. We also invite accomplished female academics to give presentations of their research as part of the School's seminar series. However, the number of female seminar speakers in recent year has been disappointingly low, Figure 4.4.2. An action point that has already been implemented for the 2017-2018 academic year is that at least 50% of the invitations will be issued to female speakers in an effort to achieve gender balance in the seminar programme (**Action 4.4-4**). The School will also keep a record of invitations and replies in order to establish possible reasons for speakers not accepting invitations.

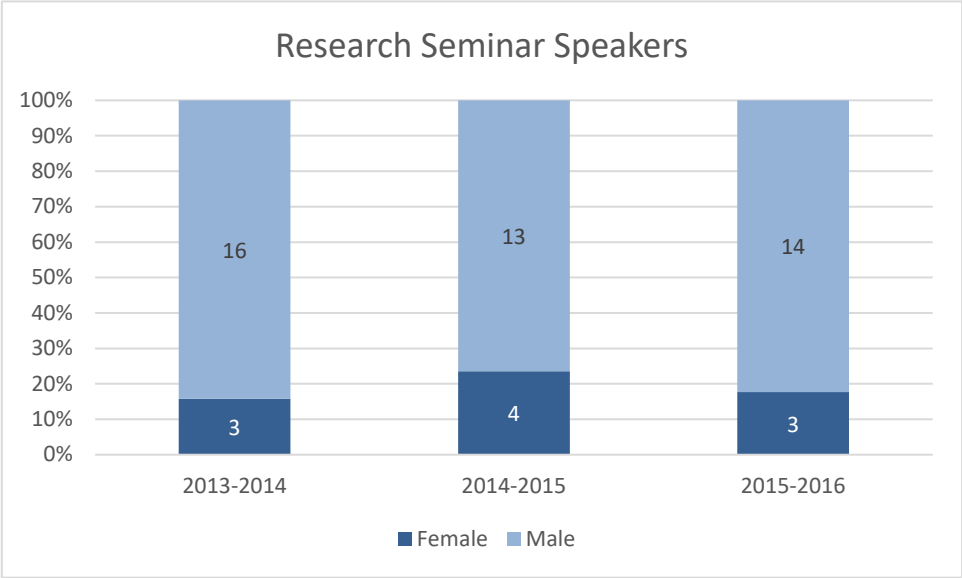

Figure 4.4.2. Numbers and percentages of female and male speakers at the School of Chemistry Research Seminar Series over the period 2013-2016.

Action 4.4-3
Include Athena SWAN related items as a standing item in the new School quarterly newsletter.

Action 4.4-4
At least 50% of invitations will be issued to female speakers in an effort to achieve gender balance in the School Research Seminar programme.

(v) **Culture** – *demonstrate how the department is female-friendly and inclusive. 'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the department, and includes all staff and students.*

The School endeavours to create an environment that is friendly, supportive and inclusive for all staff, students and visitors. Staff interact on a daily basis in the School tea room, Elements Café and also socially during events such as the annual Christmas Coffee Morning and summer BBQ. Despite the efforts we make to create a workplace environment that is enjoyable and suitable for all, it is disappointing that only 53% of respondents in the staff survey agree that the prevailing culture and atmosphere of the School is female-friendly and inclusive Table 4.4.2. To address this issue we plan to arrange an annual Town Hall Meeting to discuss topics related to the workplace environment such as (i) support for staff with caring responsibilities; (ii) quality of the daily work environment; (iii) fair treatment in the workplace (**Action 4.4-5**). It is envisaged that these discussions will lead to some further actions that can be implemented to improve the environment in the School.

Table 4.4.2. Staff survey responses to the question "To what extent do agree the prevailing culture and atmosphere in the School is female-friendly and inclusive".

	Female	Male	Total	%
Strongly Agree	1	10	11	**23**
Agree	3	11	14	**30**
Neither agree nor disagree	4	8	12	**25**
Disagree	2	3	5	**11**
Strongly Disagree	3	2	5	**11**
Total	**13**	**34**	**47**	

The School also makes great efforts to create a friendly and inclusive atmosphere for our students. Towards the end of the academic year, we hold a poster exhibition day for undergraduates to present work from their literature and final year research projects, which successfully doubles up as a social event enjoyed by all staff and students. We hold a research day in late August where PhD students give posters and oral presentations of their work interspersed with social interactions. Staff and students also interact socially at numerous events, e.g. the annual John Tobin Quiz and the Chemistry Ball, organised by the student-run ChemSoc.

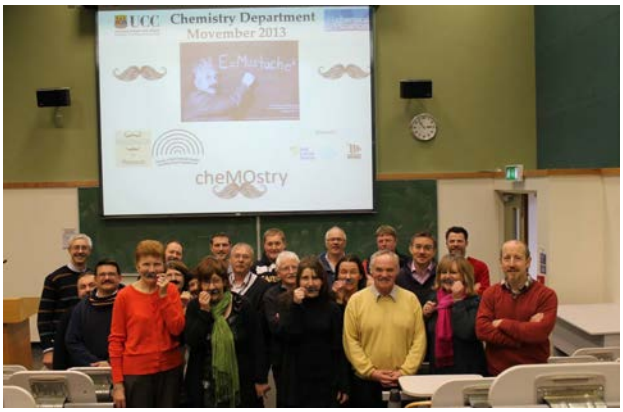

Figure 4.4.3. Left: Annual John Tobin Quiz hosted by the ChemSoc in March 2016. Right: School staff proudly displaying their moustaches as part of the Movember fund-raising initiative in 2013.

Action 4.4-5
Arrange an annual Athena SWAN Town Hall Meeting to discuss topics related to the workplace environment.

(vi) ***Outreach activities*** *– state the proportion of men and women involved in outreach and engagement activities. Comment on the uptake of these activities by gender, where possible.*

The School is involved in an extensive range of outreach activities, Table 4.4.3. These events help to popularise chemistry, educate secondary school students and promote our degree programmes. The Chemistry Magic Shows are a major attraction during Science Week, while the various camps and one-day events form a major part of the SEFS outreach programme. Most successful of all our activities is the RSC-sponsored Spectroscopy in a Suitcase tour, which has allowed us to bring chemical analysis tools to over 3,500 second level students in 88 schools across Ireland.

Table 4.4.3. School of Chemistry outreach activities, including partial information on female and male participation for 2013-2016.

Event	Target Audience	Female	Male	% Female
Undergraduate Open Day	Schools, General Public	7	6	54
Postgraduate Open Day	UG Students, General Public			
Careers Options Cork	Schools, General Public			
Careers Day	UG Students General Public			
Transition Year Week	Secondary School Students			
Salters Festival of Chemistry	Secondary School Students	16	6	73
Schools Analyst Competition	Secondary School Students			
UCC Plus+ Easter Camp	Secondary School Students			
SEFS Summer Camps	Secondary School Students	4	4	50
Spectroscopy in a Suitcase	Secondary School Students	23	6	79
Chemistry Magic Shows	School Students, General Public			
Forensic Chemistry Shows	Secondary School Students			
Outreach Module	Postgraduate Students			

The national BT Young Scientist Exhibition (BTYSE) and regional SciFest events also play a major part in collaborative work between our technical staff, research groups and local secondary schools. The School maintains strong links with BTYSE and SciFest participants - the 2013 BTYSE winner, Émer Hickey, is a member of our Athena SWAN SAT.

The OPRA Committee manages the programme of outreach events, which are organised and delivered by a team of Technical and Academic staff members. Chemistry PG and UG students (volunteers and recruits) provide valuable and enthusiastic support. The gender distribution of participants is only available for some of the outreach events held during 2013-2016, Table 4.2.2. The gender breakdown of participants in all future outreach events will be recorded (**Action 4.4-6**).

Figure 4.4.4. Photographs from School of Chemistry outreach activities. Clockwise from top left: Undergraduate Open Day, Spectroscopy in a Suitcase, UCC Plus+ Easter Camp, SEFS Summer Camp.

Action 4.4-6
Ensure gender balance among staff and students participating in outreach activities.

(vii) ***HR policies*** *– describe how consistently HR policies about equality, dignity at work, bullying, harassment, grievance and disciplinary processes are applied and followed in practice. Describe how the application of HR policies in the department is evaluated.*

The School is committed to operating in accordance with the university's policies and procedures on equality, dignity at work, bullying and harassment. Any grievances or issues with bullying or harassment are initially dealt with locally by the line manager or HoS. If the situation cannot be resolved, HR are contacted and the School follows the disciplinary process. Staff are encouraged to attend any relevant information sessions given by HR.

The staff survey indicated that 69% of women (9 out of 13 respondents) and 67% of men (23 out of 34 respondents) that they are treated fairly with regard to gender, civil or family status, sexual orientation, religion, age, disability, race or membership of the Traveller Community. However, only 46% of women (6 out of 13 respondents) and 47% of men (23 out of 34 respondents) would feel comfortable reporting that they had been treated unfairly. We plan to discuss fair treatment in the workplace in during the annual Athena SWAN Town Hall Meetings (**Action 4.4-5**).

4685 WORDS

5. Any other comments: recommended 500 words

Please comment here on any other elements that are relevant to the application; for example, other gender-specific initiatives that may not have been covered in the previous sections.

6. UCC Chemistry Athena SWAN Action plan

The Action Plan should be presented as a table, comprised of prioritised actions to address the issues identified in this application. For each action, an appropriate success/outcome measure should be defined, as well as the person/position(s) responsible for the action, and timescales for completion. The plan should cover current initiatives and your aspirations ***for the next three years****. Actions, and their measures of success, should be* ***S****pecific,* ***M****easurable,* ***A****chievable,* ***R****elevant and* ***T****ime-bound (SMART).*

Priority actions are highlighted

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
Section 2 – Self-assessment process							
2.1-1	Collect and analyse all relevant staff and student data and conduct annual student surveys and biennial staff surveys.	Using survey data to assess whether staff and students have experienced an improvement arising from the implementation of the actions. Allow progressive gender monitoring of staff and student data.	Annual preparation and reporting of data at the School Assembly and School Board.	Sept. 2018 for data Mar. 2018 for student surveys Feb. 2019 for Staff surveys	Annual Annual Biennial	Chair of Staff and Student WG in conjunction with School Manager.	Trends analysed and actions planned to address issue that arise. Access to regular feedback from both staff and students.
2.1-2	Promote Athena SWAN principles and activities and deliver an annual report on progress of the Action Plan to the School Board, School Assembly and SEFS AS Steering Group.	To achieve greater awareness within the School of Athena SWAN Principles, action plan commitments and progress and to promote equality as a core value of the School. In the staff survey 53% of staff (4 females, 21 males) felt the	Annual report to School Board, School Assembly and SEF AS Steering Group. First report to School Assembly in Dec. 2017, will report progress in implementing the action	Dec. 2017	Annual	Chair of Athena SWAN Committee & HoS.	Increase in staff awareness of Athena SWAN and improved staff/student experience of an inclusive environment/culture that is female friendly, measured by survey response data.

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
		prevailing culture and atmosphere in the School is female friendly and inclusive. While 93% (11 females and 29 males) of staff had heard of Athena SWAN this will ensure they are informed of our commitment at a local level. Inform School Board, School Assembly and SEFS Steering Group of Athena SWAN actions and initiatives.	plan and report analysis and recommendations from annual data monitoring				
Section 3.2 – Student Data							
3.2-1	Introduce an academic mentoring scheme for 2nd to 4th year students.	To provide an additional check on academic performance. Low completion rates for CHE and CFS degrees in 2015-2016. 52% (13 female, 10 male) of our 2016/17 final year students felt that a mentor from 2nd year onwards would be beneficial to them.	Annual assignment of UG 2nd year students to an academic mentor for the duration of their degree programme. Participatory review/ assessment of scheme after year 1. Monitor completion rates.	Sept. 2019	Jun. 2020 & Annually	2nd Year Coordinators for each programme.	Positive feedback from UG survey on mentoring scheme after year 1. Positive assessment of scheme by Staff: Student Committee after year 1. Annual monitoring of grade attainment/completion rates shows improved performance and completion rates over time (ref action 2.1-1).
3.2-2	Conduct a comprehensive review of the CFS programme.	Completion rates are low for student on the CFS programmes compared to others and require further investigation to assess	CFS review committee established.	May 2019	Aug. 2019	Head of Discipline for Analytical Chemistry,	Programme evaluated and recommendations enacted in 2019/2020 academic year.

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
		the reason for this and identify and remedy any issues associated with course content and deliver.	Student Consultations at the beginning of semester 2. Review committee report and recommendations delivered to T&L Committee.			Chair of T&L Committee & HoS.	Improved completion rates over time, measured by monitoring data (ref action.2.1-1).
3.2-3	Conduct a focus group of students on the current MSc taught programmes.	No survey or focus group was organised during the application process for this cohort of students. Low acceptance rates compared to offers of females on these courses. Drop in females on this course from 52% in 2013-2014 to 35% in 2015-2016.	Focus Group with a section of this student cohort to discuss topics such as reasons for choosing the course, female friendly atmosphere and culture, positive/negative aspects of the course, support for career planning.	Jun. 2018	Jun. 2018	Coordinator of the MSc Programme.	Insight achieved into declining acceptance rate/enrolment of women on this course. Feedback that can lead to actions to improve female numbers on the courses.
3.2-4	Advertise all funded MSc and PhD research positions and monitor data on offers and acceptances.	Widen the pool of potential students and establish a more transparent process for student recruitment. No current requirement to advertise PhD posts at University level.	Advertise positions on UCC and School of Chemistry outlets. Record applications, offers and acceptances, by gender.	May 2018	Ongoing	All PIs in conjunction with the School Manager.	100% of all available positions advertised. Data on applications, offers and acceptances monitored and reported annually to RGSC Committee and School Board (ref. Action 2.1-1)
Section 3.3 – Staff Data							
3.3-1	Conduct exit interviews with PhD students.	Data shows high rate of attrition of women at transition	PIs will interview all students using a	Jan. 2018	Dec. 2018	PIs in conjunction	Access to data on PhD motivations and career

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
		from PhD to Postdoctoral researcher. Acquire feedback on PhD experience, motivations and career plans	template interview sheet; data will be collated, analysed and reported. Evaluate effectiveness of interviews in eliciting useful data at end year 1. Adapt/continue initiative as necessary.	Jan 2019	Ongoing	with School Manager or her delegate.	plans, particularly regarding postdoctoral research. Data can inform action planning to address female attrition. Data analysed and reported annually to RSGC Committee and School Board (ref action 2.1-1).
3.3-2	Establish a career planning forum for research staff, students and Academic staff.	Data shows attrition of women at transition from PhD to Researcher roles, and from Researcher to Academic grades. Feedback from the PhD focus group indicates this will be useful for career planning, and for learning from the experiences of others.	The establishment of a forum between research staff, students and academic staff. The forum will allow exchange and sharing of information, advice and experience between PhD students, research staff and academic staff. It will create a support network for PhD students, particularly concerning progression to research roles.	Organise Forum: Dec. 2018 Implement actions: Dec. 2019	Annually Dec. 2020	Chair of RGSC, Postgraduate student rep. and Postdoctoral rep.	Generate feedback which can be used to identify and develop further actions to support career development within the School. Participant satisfaction with the utility and effectiveness of the forum, measured by feedback solicited following the forum. Increase of female research staff to 40% by 2019 (currently 35%).
3.3-3	Record reasons for leaving and track	Ref. Action 3.2-5, UCC Institutional Action plan - this is	Records kept of destinations or reasons	Jan. 2018	Jan. 2019	Line Managers in	Access to improved data on career planning, next

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
	destinations of departing staff.	an opportunity to understand career pathways locally, particularly for researchers on fixed term contracts.	for leaving. Through informal discussion with departing staff, line managers will work with the School manager in formally recoding responses.			conjunction with School Manager or her delegate.	destinations for research staff on fixed term contracts. Capture relevant information on researchers' experiences in the School. Data collected, analysed and reported annually to School Board (Ref. Action 2.1-1).
Section 4.1 – Key Career Transition Points							
4.1-1	Update and gender proof the School's recruitment documents.	To ensure that the wording is appropriate and free from gender bias. To ensure the various support mechanisms provided by the School and University are highlighted. Only 33% (all male) of recently recruited staff surveyed strongly agreed that their job description was well written and clear. Proportion of females applicants for Academic posts is low (16%) compared to 84% male.	Trial improved recruitment documentation in next recruitment competitions (anticipated in 2019 when retirements are due).	Jan. 2019	Dec. 2019	HoS, Heads of Discipline & School Manager, in conjunction with HR	Achieve the following targets: Female academic applications: 25% by 2020 and 30% by 2022. Female technical applications: 40% by 2020. Male administrative applications: 25% by 2020 and 30% by 2022. Improved staff experience of recruitment process, measured by staff survey.

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
4.1-2	Appoint "Search Champions" to identify potential female applicants for academic posts.	Proportion of females applicants for Academic posts is low (16%) compared to 84% male.	Search Champion will work with HR in each academic recruitment competition to identify ways to encourage female applications, as well as internal applications from suitably qualified candidates.	Jun. 2018	Ongoing	HoS, Heads of Discipline, School Manager, HR	Target of Female academic applications: 25% by 2020 and 30% by 2022.
4.1-3	Introduce a new structured procedure for Researcher Recruitment	Improve transparency of the recruitment process, from advertising to appointment. Allow gender monitoring at each stage of researcher recruitment process. PIs will now document the whole process.	Structured procedure in place for tracking the stages of research recruitment. Complete dataset available.	Jan. 2018	Jan. 2019	School Manager in conjunction with PIs.	Complete dataset for applications to research post. Data analysed and reported annually, with recommendations for actions to address issues that emerge (ref. Action 2.1-1).
4.1-4	Develop a School of Chemistry induction booklet for new staff.	Improve staff experience of induction (50% of respondents to staff survey found the local induction arrangements satisfactory.)	Comprehensive guide to the workings of the school and staff within it for new staff members, including clear information on supports and facilities for working parents and carers	Jun. 2017	Jun. 2018	School manager, Admin staff.	Greater satisfaction with induction arrangements, measured by staff survey.

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
		Following best practice in the School of BEES where this is in place and works very well.					
4.1-5	Ensure that all staff are trained prior to participation in PDRS and promote PDRS as a platform for discussing a wide range of topics, including work-life balance and career progression.	43% of female staff and 15% of male staff felt they did not benefit from the PDRS process. 29% of female staff felt it did not give them the opportunity to discuss career progression compared to 0% male staff.	Prior to each PDRS the HoS will promote PDRS as a platform for talking about a wide range of topics i.e. Promotion opportunities, work-life balance, career progression and encourage discussion of same. All staff take part in HR training in PDRS to ensure they are well equipped for the process if not done already.	Spring 2018	Biennial	HoS	Improved satisfaction with PDRS as measured in future staff surveys. 100% uptake of HR training in PDRS.
4.1-6	Conduct a review of the School's academic mentoring scheme.	Improve the level of support offered to promotion-seeking colleagues. Only 50% (female) and 56% (male) agreed support there is sufficient support available at School level.	Consultation with staff on current mentoring scheme Peer support when applying for promotion. Clarity on promotion criteria.	Review Jan. 2019 Implement Sept. 2019	Jun.2019 Sept. 2020	EAT	Improved feedback from staff survey in 2019 for support in applying for promotions.
4.1-7	Increase female representation on selection committees for academic posts.	Data shows gender imbalance on selection committees.	Achieve gender balance on the next selection committee for academic staff.	Sept. 2018	Ongoing	Heads of Discipline & HoS	Achieve the following target: Female representation on academic selection

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
			Academic posts do not come up regularly so achieving targets will be long term.				committees: 30% by 2020 and 40% by 2022.
4.1-8	Increase female representation on selection committees for research posts.	Available data indicates that female representation on selection committees for researcher posts is very low. 0% for females from 2013-2016. Priority action considering the attrition point from PhD to Researcher	Involvement of senior research staff in recruiting activities to widen the pool of for committee members. Involvement of female staff from other schools and departments.	Since Jun. 2017	Ongoing	PIs, HoS	Achieve the following targets: Female representation on research staff selection committees: 20% by 2019 and 30% by 2020.
Section 4.2 – Career Development							
4.2-1	Promote opportunities for postgraduate study and PhD research to final year students.	Feedback from UG survey indicates students felt there was inadequate support or guidance regarding career planning .	Identification of a suitable slot at the start of semester 1 has been identified – first talk to students held in Oct. 2017. Dissemination of information to 4th year students and guidance on completing applications and deadlines. Postgraduate Talk – "Life beyond 4th year" in	Oct. 2017	Oct. 2018 and annually	4th year programme coordinators & Chair of RGSC.	Positive feedback in UG annual survey.

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
			conjunction with College of SEFS Graduate Studies Committee.				
4.2-2	Organise an annual Career Development workshop.	Feedback from the PG focus group shows that support for career development was limited. 4th year students will also participate.	One workshop annually with invited speakers from industry and academic, to include alumni.	Sept. 2018	Apr. 2019 & Annually	Chair of RGSC, Research & Seminar Coordinator.	Positive feedback from a future PG focus group.
4.2-3	Ensure postdoctoral researchers prepare a Professional Development Plan (PDP) in conjunction with their supervisor as part of the Research Career Framework.	To give researchers greater opportunity to discuss training needs and career progression. According to the staff survey 67% of researchers have not met with their PI to prepare a PDP and 62% don't have a current PDP. To actively encourage postdoctoral researchers to participate in workshops and activities organised by HR for Research Career Development	Prepare a PDP at the start of their contract and regular 6 monthly meetings with supervisors on progress. Each PI will have to complete a form for School Office as each session is completed in order to manage this process. All PDRs will have a formal PDP.	Oct. 2018	Every 6 months	PIs in conjunction with the HoS and School Manager.	Improved researcher satisfaction with School support for training and career progression, measured by staff surveys. 100% of staff will have met with their PI to prepare a Professional Development Plan by 2020. Annual reporting of data to RGSC Committee (ref. Action 2.1-1) Increased uptake of career development workshops by researchers recorded leading to more

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
							informed choices for career development.
4.2-4	Encourage female staff to apply for the Aurora Women-only Leadership Development Programme.	Only 2 of our female staff have participated since introduced in 2012. UCC has supported up to 20 staff members annually to participate in Aurora programme.	Invite at least two female staff members per annum to apply.	Jun. 2018	Annually	HoS, Heads of Discipline.	Target 2 females a year participating in Aurora
4.2-5	All staff to complete training in Unconscious Bias Awareness and Living Equality and Diversity (LEAD).	Such training is not compulsory for staff. Ensure all staff, including those on selection committees, are trained. To date 34 staff (9 female, 25 male) have completed LEAD	All staff trained up in gender equality leading to a greater culture of equality within the School. Unconscious Bias Awareness workshop to be organised to give all staff the opportunity to complete, 2 workshops completed to date [approx. 20 staff trained].	Since May 2017	Sept. 2018	Head of AS committee, School Manager, HR.	100% of staff trained in Unconscious Bias Awareness and LEAD.
Section 4.3 – Flexible Working and Managing Career Breaks							
4.3-1	Work in conjunction with the Research office to lobby funding agencies to review their family leave policy.	Not all funding agencies have a provision for family leave. Only 22% (2 female) of survey respondents who took family-related leave agreed that duties were covered during family	Positive engagement with both the Research Office and funding bodies.	Sept. 2018	Sept. 2020	HoS in conjunction with VP for Research & Innovation.	Improved support from funding agencies for researchers before, during and on return from maternity leave.

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
		leave. 50% (2 female, 3 male) said they had to cover some of their responsibilities during family leave. 30% of staff (3 female, 10 male) felt that taking family leave would negatively impact on their career.					Staff having the opportunity to take family leave without work commitments/ interruptions.
4.3-2	Confer with other chemistry departments to identify best practice, procedures for staff unable to enter labs during pregnancy.	Pregnant staff are often precluded from working in labs due to health risks from exposure to chemicals. Feedback from the PG focus group suggested this was a factor in deterring women from pursuing academic careers.	Chair of SAT to survey colleagues in Irish and UK chemistry departments, including Athena SWAN awardees, to identify experiences/ practices developed to manage similar circumstances.	Nov. 2017	Jan. 2018	Chair of SAT	Chair of SAT reports back to SAT on practices/policies identified. SAT to propose response, actions.
4.3-3	Communicate facilities and supports available for breastfeeding staff, students and visitors	Feedback from the PG focus group suggested there was poor access to information on access to breastfeeding facilities.	Clear guidance on availability, location and access arrangements for nearest breastfeeding facilities for staff, students and visitors to be included in induction booklet (ref. action. 4.1-4) and on the School website.	Mar. 2018	Apr. 2018	School Manager & Website manager.	Increase in positive perception of support and perception of school as female-friendly and inclusive measured in the staff survey and future focus groups.
4.3-4	Raise greater awareness of flexible working	While 65% (8 female 18 male) of staff survey respondents are	Disseminate information on and encourage	Jan 2018	Ongoing	HoS in conjunction	Improved staff awareness of, and

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
	options available via recruitment material (action 4.1-1) induction booklet (action 4.1-4) and via PDRS (action 4.1-5).	aware of flexible working options, only 48% (feel flexible working is supported in the School (8 female, 14 male)	uptake of flexible working options.			with line managers.	perception of School support for, flexible work arrangements, measured by staff survey.
Section 4.4 – Organisation and Culture							
4.4-1	Develop a local model for staff workload.	To make the workload allocation process more transparent and fair Staff express dissatisfaction with current University workload model. Only 10% of staff survey respondents (all male) agree it enhances transparency and fairness in relation to workload distribution	Consultation sessions with staff. Trial of proposed model.	Pilot Jun. 2019 Implement Sept. 2019	Sept. 19 Apr. 2020	EAT	Feedback on pilot model. Improved staff satisfaction with system for workload allocation, as indicated in annual survey.
4.4-2	Formal school policy that all meetings are held between the hours of 10.00am to 4.00pm.	To cater for part-time staff or those with caring responsibilities.	Improved staff attendance at meetings and gatherings.	Since Jun; 2017	Ongoing	Chairs of committees.	Improved staff satisfaction with timings of meeting and gatherings, as reflected in annual staff survey.
4.4-3	Regular Athena SWAN feature in the new School quarterly newsletter.	To provide updates on progress with implementing the action plan, invite feedback/proposals for action and highlight opportunities and achievement of female staff and students.	Quarterly mailshot to alumni, students and staff and other interested groups.	Since Sept. 2017	Ongoing	Chair of Athena SWAN Committee, and	Promote School's commitment to Athena SWAN Charter Principles internally and externally. Increase in staff perception of School as

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
		Feedback from the researcher focus group felt that the School need to engage with staff more on Athena SWAN progress.				newsletter editor	female-friendly and inclusive in next staff survey.
4.4-4	50% of invitations for the School's research seminar programme will be issued to female speakers.	Data shows that female speakers are underrepresented.	Enhanced promotion of women as successful role models in Chemistry. Invitation will remain open so speakers can come when it might suit better.	Since Sept. 2017	Apr. 2018 and annually	Seminar Programme Coordinator, all academic staff.	Higher participation of female speakers in the research seminar programme. Target: 25% female speakers for academic year 2018.2019.
4.4-5	Annual Athena SWAN town hall meeting to brainstorm actions to improve such as (i) support for staff with caring responsibilities, (ii) daily work environment (iii) fair treatment in the workplace.	To give staff forum to contribute ideas and raise issues relating to the daily workplace environment 25% of staff (6 female, 6 male) don't feel comfortable discussing work-life balance issues with their line manager. 31% female and 29% male would not feel comfortable reporting unfair treatment.	Consultation with staff – guided brainstorming sessions on targeted themes	Jan 2018.	Feb. 2018	TASC	Improved staff perception of workplace culture, measured by staff survey.
4.4-6	Ensure gender balance among staff delivering outreach activities and participants in outreach.	Currently, 71% of our outreach volunteers are female. More women than men volunteer.	Annual report to School Board on gender representation at outreach activities.	Sept. 2018	Aug. 2019	OPRA	Achieve target 40:60 M:F Annual collation, analysis and

Action	Description	Rationale	Key outputs and milestones	Timeframe (start/end date)		Responsibility	Measure of Success
			Actively encourage wider participation in outreach activities through annual talks by Chair of OPRA with UG & PG students, encouraging participation in outreach activities and highlighting the benefits for future careers.				reporting of outreach data to School Board (ref action. 2.1-1)