Athena SWAN Silver award application form

Name of institution: Queen's University Belfast
Year: 2009

Department: Biological Sciences

Contact for application: Christine Maggs

Email: c.maggs@qub.ac.uk
Telephone: 2890972265

Departmental website address: www.qub.ac.uk/bb

Date of Bronze SWAN award: QUB has a SWAN Silver award

Applications at Silver level should demonstrate what the department is doing in addition to university-wide policies to promote gender equality and to address challenges particular to the discipline.

Click here for additional guidance on completing this form.

We recognise that not all institutions use the term 'department', and that there are many equivalent academic groupings with different names. If in doubt, contact Athena SWAN staff in advance to check whether your department, or equivalent, is eligible to apply.

It is preferable that the contact person for the application is based in the department.

Letter of endorsement from the Head of Department

An accompanying letter of endorsement from the Head of Department should explain how SWAN plans and activities contribute to the overall university strategy.

The letter provides the opportunity for the Head of Department to confirm their support for the application and to endorse and commend any activities which have made a significant contribution to the achievement of the university and departmental mission.

The letter should not exceed 500 words.

1. A picture of the department

Provide data on the following areas, and comment on their significance and how they have affected action planning. Data should be provided over a three-year period to enable comparisons to be made. The purpose of asking for this data is to identify what you are doing to create a pipeline for future appointments in your discipline, how you are attracting new staff and what you are doing to retain staff and promote them. The data also enable the recognition panel to get a snapshot of the department. If you are unable to provide any of the data please comment on the reasons for this.

We recommend that you use graphical illustrations to highlight the trends emerging from the data, in addition to providing the statistics and analysis. The tables and graphical illustrations must be included in a separate spreadsheet with the data clearly labelled.

There is a maximum of 100 words for the commentary on each section (i–xvi).

Student data

(i) **Numbers of males and females on access or foundation courses** – comment on the data and describe any initiatives taken to attract non-traditional groups of women to the courses.

Stage 0 is a foundation year for candidates not eligible for entry to Stage 1 of our degrees. Percentage females (c. 55%; Table 1) is lower than at Stage 1 because females have better entry qualifications. However, over this 3-year period Stage 0 included female mature students, several with families. The times of the afternoon practical classes were changed specifically to help those with childcare responsibilities. Measures to attract non-traditional groups of women include funding through the Widening Participation Unit to students on the Highway to Science and Engineering access programme. This has a high proportion of women (68%, Table 2), with 96% completing successfully.

(ii) **Undergraduate male and female numbers** – full and part-time – comment on the female:male ratio compared with the national picture in your discipline. Describe any initiatives taken to address any imbalance or negative trends and the impact to date. Comment upon any plans for the future.

About two-thirds (66%) of our full-time undergraduate students are female (Table 3, Fig. 1), very significantly ($p<0.001$) higher than the UK average for Biological Sciences, throughout the 3-year period. All pathways (e.g. Biological Sciences, Biochemistry) were combined for this analysis as numbers are small on some pathways; there are very few part-time students (0-3 in total) on our pathways. Proportions of females are stable between years, partly because the students are on 3-year programmes so there is only about one-third turnover between years. There do not appear to be any

problems in attracting and enrolling female students and hence there are no plans for the future to alter the situation.

(iii) **Postgraduate male and female numbers completing taught courses** – full and part-time – comment on the female:male ratio compared with the national picture in your discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

About three-quarters (71-78%) of our taught postgraduate students are female (Table 4, Fig. 2), significantly ($p<0.05$) higher than the UK average for Biological Sciences throughout the 3-year period. The fluctuation between years is attributed to the smaller numbers and the turnover rate: UG cohorts stay for three years whereas the PGT courses are only one year in length. Part-time students contitute a very small proportion (not shown). PGT courses appear to be particularly attractive to female students as the proportion of females is higher than on either undergraduate or research programmes, hence there are no plans for the future to alter the situation.

(iv) **Postgraduate male and female numbers on research degrees** – full and part-time – comment on the female:male ratio compared with the national picture in your discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

A census of all PhD students (total 189 students, full-time or part-time) in 2007/8 was 52% female. This is extremely close to the UK average for postgraduates (in 2005/6) of 53.2% female. Completion (submission) data for 3 years (Table 5) indicate an apparent increase from 41% females among completing students in 2005/6 to about 60% females for 2006/7 and 2007/8, possibly due to fluctuations associated with small numbers. Although the proportion of female students is somewhat lower than for our undergraduate students, females are substantially in the majority.

(v) **Ratio of course applications to offers and acceptances by gender for (ii), (iii) and (iv) above** – comment on the differences between male and female admissions and describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

All our courses have a high proportion of female students. We do not have data on offers and acceptances but offers for undergraduate and taught postgraduate courses are made entirely on the basis of entry points (there are no interviews or any other methods of selection). Research postgraduates are shortlisted and interviewed. Summary data are not available (they would be difficult for the University to collect centrally) but the results for the 2009/10 PhD student recruitment are provided as an example (Table 6). 55% of applicants were female, and 12% of female applicants were offered a PhD position vs. 10% of male applicants. There is no imbalance to address and hence there are no plans for the future to alter the situation.

(vi) **Degree classification by gender** – comment on any differences in degree attainment between males and females and say what action you are taking to address any imbalance.

Overall the proportion of female students attaining 1st class and 2.1 Honours degrees was higher (61.7%; Table 7) than the average of all students (male and female) doing so (54%). In different years the proportion of higher class degrees varied from 53.3-70.5% but in all years females performed better. Females were three times more likely to obtain firsts (15.4% of candidates) than males (5.6% of candidates). Females also were less likely to obtain Ordinary degrees. This good performance appears to be typical of females in education; there is no imbalance to address and hence there are no plans for the future to alter the situation.

(vii) **Length of time for postgraduate completion by gender** – comment on any differences in completion times between males and females and say what action you are taking to address any imbalance.

We do not have data on the length of time for postgraduate completion for PhDs funded by all sources. However progress of PhD students funded by our main source of PhD funding, DEL, is monitored. More than 85% of our students complete within four years.

Staff data

(viii) **Number of male and female staff (academic and research) at each grade** – comment on any differences in numbers between males and females and say what action you are taking to address any underrepresentation at particular grades/levels.

Overall, there are about 50% female researchers, mostly at AC2 grade (Table 8, Fig. 3), with a slight reduction from 2005/6 (51.5%) to 2007/8 (45.6%). A much lower proportion of women among lecturers on academic scales AC2-AC3, about 30%, increased slightly over the period (Table 9, Fig. 3). Under-representation by women at AC2-AC3 lecturer grades is being addressed by modifying recruitment procedures (see Action Plan, point 1). At AC4 (senior lecturer/reader) and professorial level there are about 20% females, with no improvement over the period. The female ratios for each rank are not significantly different from those predicted from the UK figures (Fig. 4; $p = 0.96$). Under-representation by women at senior grades is being addressed in various ways (see Action Plan, point 2).

(ix) **Job application and success rates by gender and grade** – comment on any differences in recruitment between men and women at any level and say what action you are taking to address this.

Because of small numbers of posts in any given year, numbers and percentages fluctuate among years (Tables 10, 11). However, for academic posts over the three years male and female success rates were identical

(6.9%). The proportion of females among appointees varied from 20-37% between years. There were insufficient numbers at each grade to comment on success rates within grades. The same pattern is seen for researchers, with male and female success rates over the three years being identical (6.0%), and 17-50% of appointees being female. We have no problem in appointing women when they apply, but in attracting applicants (see Action Plan, point 1, listing various actions being taken).

(x) **Turnover by grade and gender** – comment on any differences between men and women in turnover and say how you plan to address this. Where the number of women in the department is small you may wish to comment on specific examples.

During the period 2005/6 to 2007/8 there was a total turnover of five academic staff at grades AC3 to Professor (Table 12). All were male. Among researchers, turnover was higher (49 staff), and was composed of about 50% female staff, in line with the proportion of females in post. There do not appear to be any problems with retention of females in either academic or research posts.

(xi) **Maternity return rate** – comment on whether your maternity return rate has improved or deteriorated and say how you plan to improve further. If you are unable to provide a maternity return rate, please explain why.

One academic took maternity leave twice during the period 2005-2008 and her return rate was 100%. As far as we can determine, no researchers took maternity leave during the period. There is therefore no scope for improvement of maternity return rate.

(xii) **Paternity, adoption and parental leave uptake** – comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade and whether this has improved or deteriorated and say how you plan to improve further.

Over the 3-year period one member of academic staff and one researcher took paternity leave (Table 13); there was no adoptive leave; and one researcher took parental leave. We do not have information on how many staff were eligible but did not apply for leave and therefore cannot comment on uptake rates.

(xiii) **Promotion application and success rates by gender and grade** – comment on whether these have improved and say what further action may be taken. Where the number of women is small you may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

Data for academic staff for the three years (Table 14) show the small numbers involved at different grades in different years, leading to large fluctuations between years. Pooling the three years and two grades yields overall

promotion success rates of 55% (5/9) for males and 100% (2/2) for females. These figures suggest that women are at least as likely as males to be promoted when they apply. Potential candidates for promotion are identified during appraisal by the Head of School and the two Directors of Research. All academic staff are explicitly encouraged during and after probation to develop their curricula vitae against profiles for promotion (see Action Plan, point 2). Application for promotion is made by individuals, not managerially, in a process supported by appraisal.

(xiv) **Male and female representation on committees** – provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.

Representation by males and females on committees is shown in Table 15. Most committees have about 30% female members, in line with theire proportion in the school as a whole. Members for committees are designated by the Head of School after considering overall workload and other administrative responsibilities.

(xv) **Numbers of applications and success rates for flexible working by gender and grade** – comment on any disparities. Where the number of women in the department is small you may wish to comment on specific examples.

Over the 3-year period one (female) researcher, at AC2, applied for flexible working and it was approved.

(xvi) **Female: male ratio of academic staff on fixed-term contracts and open-ended (permanent) contracts** – comment on any differences between male and female staff representation on fixed-term contracts and say what you are doing to address them.

The proportion of women researchers on fixed-term contracts (Table 16) is much higher (67-72%) than the proportion of male researchers on fixed-term contracts (44%). This is very similar to figures reported elsewhere in the UK. The origins of this situation are complex, including the lengthy times that some permanent researchers have been in service, reflecting historical gender imbalances. Measures to address this are also very complex because externally funded research is always fixed-term and university policies do not support new permanent research posts in our School. We encourage women to apply for lectureships and ensure that postdocs are supported in career development, through the Women's Mentoring Scheme and during appraisals (see Action Plan, point 3).

2. Initiatives to advance and support women in the department

Provide commentary on the thematic areas below, explaining what the key issues are in your department, based on the data above, what steps have been taken to address any imbalances, what success/impact has been

achieved so far and what additional steps may be needed (maximum 200 words each for sections i–xii).

(i) **Promotion and career development** – comment on the appraisal and career development process and the evidence of gender balance in the process of identifying people for promotion.

At QUB the appraisal process takes place within the School. Appraisal is devolved from the Head of School to Directors of Research and delegated members of the professoriate. DRs are appraised by the Head of School. Identification of staff encouraged to apply for promotion is based on performance, and is applied equally to male and female staff. At present, due to the recent expansion of the School to include Agri-Food and Land Use, the majority of women academics within the School are still on probation (54%) or have only recently been confirmed in post (9%). Three previous female promotions mean that only one female is currently eligible for promotion. In the past, in cases where women in particular have been reluctant to seek promotion, the HoS has selectively solicited an application. Our initial School SWAN committee meetings identified reluctance to apply for promotion as a particular issue for women. Our promotion success rates (Table 14) are in line with the view that women may wait longer to apply for promotion but are then more likely to be successful.

(ii) **Support for staff at key career transition points** – comment on any initiatives, drawing out different approaches at different levels.

The first key transition point is between researcher and academic. For new academic staff, family responsibilities are taken into account in planning workload; females with young children have been given greater flexibility in terms of teaching, particularly of field courses. The next key transition point is confirmation in post at the end of probation. All staff on probation have a formal annual review with senior staff and receive written feedback from the Head of School detailing any possible deficiencies with regard to confirmation in post. Each probationer has a designated mentor within the School, and one woman on probation also participated in the university's women's mentoring scheme. Preparation for promotion, the next key transition point, involves the appraisal process as well as mentoring. Staff not yet eligible for promotion are prepared for the needs of promotion; the HoS and DRs are pro-active in soliciting appropriate activities by staff. For researchers, mentoring is provided through the women's mentoring scheme and during the appraisal process. Researchers are actively encouraged to develop their profiles to assist with applications for permanent positions or grade enhancement. Regular review of a researcher's c.v. is an essential element of this process. The HoS also addresses all contract staff annually (see Action Plan point 3).

(iii) **Flexible working** – comment on the numbers of staff working flexibly and at what grade and gender, whether there is a formal or informal system, the support and training provided for managers in promoting and managing flexible working arrangements and how you raise awareness of the options available.

In general, academic staff do not require formal arrangements for flexible working because academic work itself is flexible and can be structured to fit with childcare needs for example. An informal system is in place whereby female staff with young children are not expected to teach on long field courses, for example. A recent academic appointment with a young child is now working from home one day a week. Some female researchers are known to be working on formal flexible contracts, e.g. one woman is part-time and does not work during the school holidays because she wishes to spend them with her children.

(iv) **Culture** – comment on how you demonstrate that the department is female-friendly and inclusive.

The department has a large number of women at all levels within the School, including one female Director of Research. The culture of the School is inclusive, not top-down, with regard to decision-making, so that all major decisions are made after discussion with the School Board. Efforts have been made to assist new female appointees with children, including ensuring appointment higher up the salary scale to assist with childcare costs. Our website has been revised to give females greater visibility. Social activities within the School are mostly organized so that children can attend and are welcome to do so. This is particularly valuable for academic mothers who wish to join in social activities but do not want to spend even more time away from their children.

(v) **Recruitment of staff** – comment on how your recruitment processes ensure that female candidates are attracted to vacancies and how you ensure that recruitment processes comply with the university's equal opportunities policies.

The university's equal opportunites policies are strictly enforced in all recruitment processes. QUB has an active EO Unit, and staff receive EO training. In Northern Ireland recruitment procedures ensure that posts are advertised across the community. Personnel officers are involved in all shortlisting and interviews of academic staff to ensure that procedures are correctly followed. We have taken some measures to improve the attractiveness of the School to women (see Action Plan, point 1). An example of this is on our School home page, where the photo for 'staff' link has been changed to show two happy women!

(vi) **Representation on decision-making committees** – comment on evidence of gender balance in the mechanism for selecting representatives.

As noted above (i), the majority of women academics within the School are still on probation or have only recently been confirmed in post, hence are not available for some committees. It is not considered appropriate to give the burden of major administration roles to staff on probation. Representation by females on the most important decision-making committee, the School

Management Board (Table 15), is 23%, similar to the proportion in the School Board as a whole (26%). Representatives are mostly appointed without active selection, based on responsibilities within the School (e.g. Directors of Research, Directors of Education, School Manager). Only two members are recruited; these positions were advertised within the School and there were no applications from women, few of whome were eligible. There is good representation by women at the School's senior administration level: the School Manager, one of the two DRs, and one of the three DEs are female.

(vii) **Workload model** – comment on evidence of transparency and fairness.

We do not currently have a workload model. At present various possible mechanisms are being evaluated. Workloads are monitored and managed by the Head of School bearing in mind health issues and personal/family responsibilities as well as the needs of the School.

(viii) **Cover for maternity and adoption leave and support on return** – comment on the mechanisms for covering workload absence and specific support on return.

At present the University's Athena plan has requested funding for a 6-month research only period following return form maternity for academics. Although this has not yet been implemented by the University, the School undertakes to provide this benefit should it be relevant (i.e. academic staff member has a baby).

(ix) **Timing of departmental meetings and social gatherings** – evidence of consideration for those with family responsibilities.

School Board meetings previously took place on Friday afternoons but have now been moved to early Wednesday afternoons (monthly) to assist those with family responsibilities. Meetings end before 5 pm. Social gatherings are mostly organized on School premises or in academics' homes where children can and do participate.

(x) **Outreach activities** – comment on the level of participation by female and male staff and whether they get recognition for being involved and the time and work put in.

There is a high level of participation by women (at least 50% of those involved) in outreach activities such as exhibitions at the Odyssey W5's science exploration centre in Belfast, and the hosting of school visits and individual student projects. Staff get recognition for all such activities, and outreach is part of the required profile for promotion. For regular outreach and recruitment activities such as careers conventions all staff are expected to take part in an informal rota system.

(xi) **Induction and training** – comment on the support provided to new staff at all levels, noting what new arrangements you may be planning, as well as details of gender training.

The support provided to new staff includes mentoring and probation committee monitoring, as described above (ii). One of the roles of Director of Research is to provide new staff with assistance in making grant applications, reading, commenting and providing training in grant writing techniques. All female staff are invited to the Queen's Gender Initiative activities. Several have been closely involved in the Women's Mentoring Scheme, some both as mentees and as mentors.

(xii) **Support for female students** – comment on the support provided for female students to enable them to make the transition to a sustainable academic career, particularly from postgraduate to researcher.

The university's postgraduate skills training now includes a day's training "Doing it all: academic careers for women", with two lectures provided by staff members of Biological Sciences. Several of our PhD students participated in the course. The main goal was to help female postgraduate students to see that academic careers are compatible with having a family; in fact to demonstrate that academia is one of the most flexible working environments. Copies of the inspiring publication "Mothers in Science: 64 ways to have it all" by Ottoline Leyser, winner of the 2007 Rosalind Franklin Award, are available. All postgraduate students are expected to attend weekly research cluster seminars that lead them through to thinking about scientific careers after graduation. The School has a full-time careers development officer working within the Student Guidance Centre, who can help students plan a career in research. He works with both undergraduates and postgraduates, and gives all first-year postgraduates a careers seminar.

3. Case study: impacting on individuals

Describe how your department's SWAN activities have benefitted an individual woman working in the department (maximum 200 words).

Involvement in the Gender Initiative including SWAN activities has benefitted Christine Maggs, the School's SWAN champion. Activities in the university such as the women's mentoring scheme improved her understanding of university processes and procedures, and her appreciation of the role of women in the School of Biological Sciences as well as in university leadership. Having been to training showing that the proportion of women in positions of academic leadership at QUB was actually dropping, she successfully applied to become Director of Research (DR) in one of the two School of Biological Science's research clusters. One of her goals was to mentor and support junior women and to encourage women postgraduates and postdocs to continue in science. Having a family herself, she was keen to act as a role model for women who wanted to have children and hence were worried about

beginning an academic career. She herself had benefitted from the active encouragement of her (male) Head of School, and she wished to help others in a similar way. In 2009 she acted as a reviewer for the L'Oreal Women in Science awards, thus contributing outside QUB to women in science. The benefits of SWAN activities to Christine's own career are the leadership experience and opportunities to progress: positions in university senior management such as Deans and Pro Vice-Chancellors require experience at DR or Head of School level.

4. Further SET-specific initiatives

Comment on any particularly innovative programmes not covered above which have been undertaken, noting their effectiveness to date and any plans to introduce new initiatives and/or review present practice (maximum 200 words).

The School normally hosts one or more Nuffield bursary students each year, many of whom are female. The students' opportunities to experience research at first-hand encourage them to think about careers in science. We also participated in the programme "Bring your daughters to work". However, as dicusssed above and in the Action Plan, there is no shortage of women in biology at undergraduate and postgraduate levels; our problems arise at the transition to academic posts.

5. The self-assessment process

Describe the Self-Assessment Team members and the action planning process, as well as any consultation processes that were undertaken (maximum 500 words).

A SWAN review of the representation of women in the School of Biological Sciences in April 2008, using data supplied by the Queen's Gender Initiative and from other sources such as the QUB Establishment database, showed that there were at least 50% females at undergraduate and postgraduate levels, and about 50% among AC1 and AC2 research staff and AC2 (Lecturer A) lecturing/teaching staff. There was under-representation by women at senior academic levels (see Figure 3). In May 2008, a School SWAN meeting with Prof. Jean Orr from Nursing and the Dean, Head of School, and School Manager was held to examine these data and to initiate a provisional action plan (see Action Plan). Prof. Orr commented that in general there were few females put forward for promotion, and this needed to be acted upon. Actions were also needed to increase the number of women applying for academic positions, especially those moving from postdoctoral contracts.

During 2008 the feasibility of various actions was explored with the Head of School and School Manager, and in discussions with Personnel. The School SWAN champions attended regular meetings with other champions at the QGI, and reported there on activities within the School. One of the champions, Prof. Jenny Ames, left in 2009 to take up a senior managerial role at another university. The remaining champion, Prof. Christine Maggs, attended the Athena SWAN Awards Workshop in London in February 2009 with the chair of QGI, Prof. Margaret Mullet.

The Self-Assessment team (Table 17) assembled by Prof. Maggs was involved in the production of the Self-Assessment document. The team members were selected for their particular expertise and knowledge, as well as their personal perspectives on gender balance within the academic environment. Following initial analyses of the 3-year statistical data obtained from the university via the QGI, the team were consulted with regard to interpretation of the data and the refining of the School's action plan. The difference between female representation among permanent and contract research staff was only identified when these data were available, and the goal of improving this situation, if possible, was added to the action plan. The team assisted in drawing up and revising the action plan. Other members of staff were informally consulted for their views of the data and our conclusions.

We feel confident that we have had some success already. We were able to compare the results of two academic recruitment exercises within the same research area in 2008 and 2009. In 2008 there were 46% female applicants (n=39), 37% females shortlisted (n=8) and no females appointed (n=2). In 2009 there were 20% female applicants (n=40), 25% females shortlisted (n=12) and two females appointed (n=3).

6. Action plan

Please attach your action plan which summarises actions identified from the data and commentary above, naming the person responsible and time scale.

7. Any other comments

Please comment here on any other elements which you think relevant to the application, e.g. recent mergers between departments (maximum 100 words).

The merger of the School of Biological Sciences with the Institute of Agriculture, Food and Land Use in 2006 involved recruitment of a large number of new lecturers, in new areas of research for the School. This increased the proportion of women in our School but also led to a high proportion of women being at junior grades.