



## Athena SWAN Silver award application form

**Name of institution:** Imperial College London

**Year:**2009

**Department:** Physics

**Contact for application:** Professor Lesley Cohen

alternative contact: Professor Adrian Sutton

**Email:** l.cohen@imperial.ac.uk  
[a.sutton@ic.ac.uk](mailto:a.sutton@ic.ac.uk)

**Telephone:** 0207 594 7598  
0207 594 7540

**Departmental website address:** <http://www3.imperial.ac.uk/physics>

Departmental website address: <http://www3.imperial.ac.uk/physics/about>

Other Relevant Web sites\*:

<http://www3.imperial.ac.uk/physics/about/juno>

(The Juno page has the details about the staff survey)

<http://www3.imperial.ac.uk/physics/about/academicwomen>

<http://www3.imperial.ac.uk/physics/staff/promotioninformation>

[http://www3.imperial.ac.uk/physics/about/postdoc\\_staff](http://www3.imperial.ac.uk/physics/about/postdoc_staff)

<http://www3.imperial.ac.uk/physics/staff/jobdescriptions>

<http://www3.imperial.ac.uk/physics/about/flexibleworking>

<http://www3.imperial.ac.uk/naturalsciences/about/academicwomen>

(The natural sciences page has links to more general web sides and also the other equivalent committees within the Faculty)

Date of Imperial Silver SWAN award: 2006

## **1 A picture of the department**

The Blackett Laboratory is a large department with over 750 undergraduates, 250 post graduates, 169 RAs, 26 research officers, 120 academic staff, 31 administrative staff and 40 technicians. Apart from academic staff seconded e.g. to CERN the Department benefits from being in the same building.

The Department offers six undergraduate degree programmes and four one year Master level programmes and from Oct 2009 one new MRes and three new Doctoral Training Centres (one female director) will be introduced substantially increasing Master level and PG Research student numbers.

The Department of Physics at Imperial College London was confirmed as the second strongest Physics research department in the UK in the 2008 Research Assessment Exercise [RAE score: 20(4\*), 45(3\*), 20 (2\*), 10(1\*)].

The Department is divided into nine research groups spanning all areas of Physics, each having on average between fifty to a hundred people including post doctoral staff, post graduates, academic staff, administrators and technical staff. Each group is lead by their head of group (HoG) and the management structure revolves around the monthly HoGs meeting chaired by the Head of Department (HOD) with the Directors of undergraduate (DUG) and postgraduate (DPG) studies attending.

Departmental academic administrative roles are shared across the groups and tend to rotate on an approximate three year time scale. Senior administrative posts such as directors of undergraduate and post graduate studies, HOD, admissions tutor etc all normally rotate on a five year time scale.

For the 2006/2007 calendar year a total of 187 grants were funded worth £44.64 million. Funding sources were primarily the Research Councils EPSRC and STFC. From this snap shot, 13% of the grant PIs and 18% of the grant income was brought in by female principal investigators. In the 2007/2008 calendar year 55 grants were funded with a total of £35,248,993 with 20% of grants and 10% of the grant income brought in by female PIs The female staff are certainly delivering resources successfully into the department.

### **Student data**

#### **1 (i) Numbers of males and females on access or foundation courses –**

No such courses provided

#### **1(ii) Undergraduate male and female numbers –**

UG female numbers have grown steadily from 20% 5 years ago to 27% for the 2008 entry.

There was a step change between 2005 and 2006.

Prior to 2005 percentages averaged around 17%, after 2005 they average around 25%. (See statistical annexe for relevant key factors). Not only are an increasing number of women choosing to apply, but of those who receive offers a higher percentage of women accept (there is an indication that our 2009 intake may reach 30% women).

**Action plan** includes exit interviews with female undergraduates to explore why they choose Imperial, whether the Department delivered what they expected, and how their career aspirations have changed since starting the degree.

### **1 (iii) Postgraduate male and female numbers completing taught courses –**

Until Oct 2008 Physics offered two MSc courses. Optics and Photonics (Phot) is a very strongly laboratory based and industry linked course and Quantum Fields and Fundamental Forces (QFFF) is a highly theoretical course. In both the number of students is usually small (around 20 each) and varies significantly year on year. From October 2009 onwards Physics will have eight master level courses, three of them associated with three new doctoral training centres.

**Action plan**, now that numbers are significant, we will monitor the intake by gender and all the College's equal opportunities policies, and report annually on findings.

### **1 (iv) Postgraduate male and female numbers on research degrees –**

The Department is conscious that its success at undergraduate level is not followed at PG research level. PG numbers are slightly below the national average (18%, UK 21%). (See Table 6 in annex)

The Juno Committee is in contact with the Cavendish and the Clarendon Laboratories who are the relevant comparators, but have not had comparable data from them.

The College PRES survey of post graduates, reports Physics PGs as extremely positive about their experience in terms of supervision, career opportunities and training, facilities and opportunities to develop skills such as teaching.

Physics surveyed female PGs (following the IoP visit) in 2005 and again in May 2009, with the latter informing our **action plan**.

### **1 (v) Ratio of course applications to offers and acceptances by gender for (ii), (iii) and (iv) above**

The percentage of accepted offers by female UGs is as high or higher than the percentage of offers made to female UGs.

The PG taught course statistics are variable because of the small numbers up to this point.

The PG research statistics (see table 5) show that a higher percentage of female students are offered places than accept them. About 35% of our total UG population go on to PG study.

From table 3 we see that on average about 7% male and 1-2% female stay within the department as PGs (the numbers fluctuate significantly). The numbers are small but are in approximate proportion to the total numbers of male and female students per year.

#### ***1 (vi) Degree classification by gender***

The figures (in table 7) show that for both men and women the highest percentage on the 3 year UG course F300 get a 2.2 – and on the four year UG course F303 the class is approximately equality split for men between 1<sup>st</sup> and 2.1 degrees; whereas for the women there is a weighting towards 2.1 degrees. For the four-year – year in Europe course F309, where there are approximately equal numbers of men and women on the course, for the men there is a strong weighting to first class degrees and for the women there is a split between first class and 2.1 degrees with a slightly higher percentage getting 2.1 degrees.

#### ***1(vii) Length of time for postgraduate completion by gender***

Over the last two years the 8 “problem cases” have been male (see Table 5). Two years ago the Department conducted a survey of M/F differences on completion. Women were slightly more likely to complete ahead of the 48 month deadline. The Department’s completion statistics averaged over the last four years are 72% complete within 48 months and 97% complete within 60 months.

## **Staff data**

### **1 (viii) Number of male and female staff (academic and research) at each grade**

The Wakeham review of Physics (2008) identified that a feature of Physics departments in general is a significantly higher proportion of post docs than in other disciplines and that realistic career advice should be given to young researchers and more support on career opportunities. The Department has taken this advice seriously by creating an RA departmental committee and thereby creating a channel for communication. See [http://www3.imperial.ac.uk/physics/about/postdoc\\_staff](http://www3.imperial.ac.uk/physics/about/postdoc_staff)

The Department's gender statistics compare favourably with national figures (from IoP 2007 report), except that we have a slightly lower PG statistic. The percentage of women academics has remained around 10% over recent years as the department has grown from 90 to 120 staff. This implies a growth in the number of female academics in absolute number.

25% of the female staff are part time (table 16). There has been considerable growth in lecturer and senior lecturer grades in percentage terms over the monitoring period. Given women's percentage representation in the UK pipe-line we have focused on retention and support of the existing staff in the department. The **action plan** addresses improvements in the M/F balance at PG, RA and lecturer grades.

### **1 (ix) Job application and success rates by gender and grade –**

In the 2004-08 reporting period 9 Professorial, 1 Readership and 26 Lectureship appointments were made, of these 4 appointments were to women, all at the lectureship grade. There were many more permanent academic appointments to new positions than replacements of vacated positions, although the opposite is true for RAs.

Women who become permanent staff tend to be older than their male equivalents. The RA situation is different. Although female RAs are shortlisted similarly to the national average (22%), the appointment rate for new appointments is less (16%).

### **1 (x) Turnover by grade and gender**

For RAs the five year average annual turnover is 44 RA staff (of which on average 4 are female), out of an average total RA population of 169. This means a total population renewal approximately every five years, (see Table 11A)

Exit interviews are conducted with all staff. For academic staff the majority stay until retirement, once they are in the department (see Table 11B). All female staff are under 60.

28 (7F) academic (level C and above) staff left the Department between 2004-08: 9 moved to promotion posts (1F terminated fellowship to take up a permanent post in America; 3M to non promotional posts at other institutions and 2F (1 Professor and 1 Royal Society URF) for closer scientific interests; and 2F relocated for family reasons.

Most of these leavers continue to have an association with the Department as academic visitors or as Visiting Professor etc.

#### **1 (xi) Maternity return rate –**

Since 2004, all academic staff that have taken maternity leave have returned, so the Department has 100% return rate (see Table 12). One RA staff member did not return.

The statistics are representative of a long tradition starting with Lady Anne Thorne a member of the Physics Department who set up the College day nursery in the early 1960s through current HoD and Athena Ambassador.

It is one of the Departmental successes that academic women return after maternity leave, have no problem negotiating part time contracts for some early year period, have good access to child care through the Imperial College nursery and have celebrated career success stories. **The action plan** makes sure that the departmental success story is broadcast more widely.

#### **1 (xii) Paternity, adoption and parental leave uptake –**

The numbers of academic staff who have taken paternity and adoption leave are very small – please refer to Table 13 in the statistical annexe. The College practice is well set out and usually staff take up the statutory two weeks paid leave although they are entitled to up to four weeks additional unpaid leave (see <http://www3.imperial.ac.uk/hr/procedures/family/paternity>).

Many male staff are shared carers of child/elder care. Many of the RAs and academic male staff use the Imperial College nursery (including one male HoG), setting a good example to younger staff on work/life balance. **The action plan** includes writing up some case studies for the web.

#### **1 (xiii) Promotion application and success rates by gender and grade –**

Although there have been cases where promotion has been put forward by the group (division) that have not been approved, in the last five years there have been only four such cases (out of a total of 50 applications), all male (see Table 14).

One of the first issues the Juno committee tackled was drawing up a document to explain the early stages of the promotion process to make it more transparent. It was one of the points raised when the women academics in the department were

interviewed by the member of the Juno Committee who comes from College staff development.

The document was finalised with agreement from all the HoGs (head of groups) and is on the departmental web site, and see action plan.

<http://www3.imperial.ac.uk/physics/staff/promotioninformation>

#### **1 (xiv) Male and female representation on committees –**

Membership of Departmental Committees are filled by ex-officio roles and staff who are invited to serve for three years by the HoD.

The HoD ensures invited members cover representation across the Research Groups, gender, workload, grades – including when experience is helpful for promotion

There is at least 1F on every Committee- see table 15. The Juno Committee was formed from volunteers. Departmental representation on Faculty and College Committees is through ex-officio roles (e.g. HoD attends Faculty Research and Management Committees, DUGS and DPGS attend Senate).

#### **1 (xv) Numbers of applications and success rates for flexible working by gender and grade**

The informal flexible work policy works well throughout the department. Although there are formal procedure guidelines, these are not usually applied to permanent academic or research staff, although they are applied to administrative and technical staff. (See <http://www3.imperial.ac.uk/hr/procedures/family/flexibleworking>)

It has become easier to work effectively remotely from College and most academic staff take advantage of this around teaching timetable and supervision and administrative constraints. Most people who move to part time work do so because it buys them more flexibility, and the few percent of staff on part time work reflects this very positive attitude to work practice for academic staff.

#### **1 (xvi) Female: Male ratio of academic staff on fixed-term contracts and open-ended (permanent) contracts**

There is a total of 21 RAs (12% of the total number of RA staff) on open contract.

Those with more than 6 years of continuous service are automatically offered this. Of the total of 21, 4 are female. Of the number of RAs on open contract 19% are female which closely matches the total number of female RAs to the total number of RAs. We can conclude therefore that the female to male ratio on open contracts is similar to the ratio on short term contracts, which is appropriate.

## **2 Initiatives to advance and support women in the department**

### **2 (i) Promotion and career development –**

The HoD invites all academic staff to submit an annual “summary of achievement record”, which is in effect an appraisal. A review by the Juno committee suggested that women were less likely to respond to the invitation. Action will be taken in advance of the next promotion round to encourage more women to submit. See **action plan** to extend the achievement record activity to RAs to be reviewed by the Head of Group.

Within the last 12 months, the Juno Committee has attempted to make the promotion procedure more transparent by producing documentation on the informal initial activities that lead to the promotion procedure and putting this on the web. It is too early to say if this has made any impact. There is some confusion amongst level C research staff and fellowship holders about which staff group they belong to.

The achievement record is separate to the “personal review and development plan” (PRDP process). Nearly all staff participates in the PRDP process conducted by their ‘line manager’ [average 80% return for academics and 90% return for post docs].

However, amongst RAs the PRDP is considered ineffective (results of survey in 2008) because of the poor career structure for RAs, and because the majority of RAs were not aware that it might help inform the increment and bonus scheme, even though that is not its purpose. Many RAs are nominated for and receive increments and bonuses but this appears to not be widely discussed.

### **2 (ii) Support for staff at key career transition points**

The Athena Forum Report 2 (published April 2009) states clearly that the most important issues for women to maintain their career when returning to work after a childcare break are (1) the opportunity to work part-time and later flexi-time, (2) access to affordable and reliable child care.

SWAN has been useful in focussing on this for the Department because we have realised that although information was available on HR web sites, the Department has never publicised the many people in the department who have worked part time in the past, and are now in senior positions, eg HoD, HoG. This is now a priority.

### **2 (iii) Flexible working**

Academic staff are free to set their own hours of work within the Department and to work from home, provided they are able to discharge their teaching, research and administrative duties.

Part-time working, returning to full-time working and sabbatical leave have to be agreed first with the relevant Head of Group, then with the Head of Department and finally with the College. Provided the Head of Group can support a request for part-time working, or a return to full-time working, in general, the Head of Department will also support the request. The Head of Group will consider the request in the light of

the College Policy on Flexible Working. Less than 4% of academic staff are on part time contracts. It is not possible to gauge how many staff use the informal flexible work arrangements within the department.

Requests for sabbatical leave are made annually and considered first by a Departmental committee. The Departmental criteria for granting sabbatical leave are available on the web. Departmentally approved applications for sabbatical leave are then approved by Faculty, which applies widely publicised criteria.

A statement is posted on the web to remind staff that the Department recognises that there are many forms of flexible working which staff makes use of: part-time working, flexi-time, working from home, sabbatical leave and maternity/paternity leave and other caring leave. The web provides examples of part-time working and returning to full-time working, by members of academic staff. This informal arrangement works equally well for child care as it does for care of elderly relatives.

## **2 (iv) Culture**

There is a recognised need for transparency in Departmental management. There is a new JD for HoGs, initiated by the Juno committee. It describes the roles of HoGs. There always was a JD on the web but it needed updating and the link to it needed to be more prominent. The action was raised from the initial surveying of women academics in the department.

See <http://www3.imperial.ac.uk/physics/staff/jobdescriptions>

The Advisory Panel for Awards and Prizes (APAP) invites all members of academic staff to summarise lifetime achievements and top academic publications. The committee is very active putting forward more than 30 nominations per year for external prizes in consultation with HoGs and senior staff., with a small number of female women nominated per year – reflecting the small number of senior females.

A communications problem was identified through the recent staff opinion survey. People don't use College or departmental websites frequently although they use email, and attend regular departmental functions (several a term). See **action plan**.

Department communications are cascaded down and up through HoGs at group meetings. HoGs meet monthly in term time. They receive reports from e.g. Directors of undergraduate and post graduate studies and other section heads.

RAs felt they were not properly represented in the Department, which has now been addressed with the formation of the RA committee, another suggested action by the Juno committee. The RA and PG committees will be given more responsibility in future and HoGs will encourage RAs to get involved in the process. The RA committee had its first formal meeting in March. It will meet regularly and report at HoGs meetings.

There is an annual breakdown of space charges, income and expenditure (Morgan tables). It is disseminated at group meetings.

## **2 (v) Recruitment of staff**

In the 2004 – 08 period we made 9 professorial appointments, 1 readership appointment (where 10% of applicants were female), and 26 lectureships. For the

lectureships we do not have complete statistics on 6 (23%) of the appointments, and a further three were internal appointments with only one or two candidates applying. Of the 26 lectureships, four (15%) went to women. This is slightly below the national average. All four female appointees were older than their male counterparts.

Most appointment panels did not have women. In the majority of cases where women were shortlisted/appointed, there was at least one woman on the interview panel.

College recommended in August 2008 that every effort should be made to ensure that there is female representation on all panels.

In the past we have not kept information on the shortlisting panel. The College has recently reiterated its policy that the shortlisting and interview panels should be the same for all academic appointments at all levels.

There is a view that internal candidates for permanent positions are less likely to be successful, but the evidence shows the opposite. For example in the Experimental Solid State physics group (EXSS) there are 17 current academic staff, 9 of these (all appointed in the last 10 years) were post docs or fellowship holders in the group.

## **2 (vi) Representation on decision-making committees**

1 of the 9 HoGs, and the HoD, are females and they both attend Faculty Management Committee. There is good representation of females on all Departmental Committees (see table 15). Membership is a mix of ex-officio roles, (all rotate every 5 years and are open to all staff), and invited members. The HoD invites members for a three-year term and considers representation across the Research Groups, gender, workload, grades, need for experience.

Since 2008 the HoD has taken a more proactive gender approach and now all reviews/promotions panels have at least 1 invited female, see Table 15. The Teaching Committee has elected staff members for three-year terms, (student reps are elected by the students each year), and all are eligible to be nominated when a vacancy arises, this Committee in turn elects to the Staff-Student Committee.

There is good reporting between the Committees, e.g. DUGS/ DPGS have standing reports on the HoGs meetings' agenda. The establishment of the RA Committee in 2009 has already made a difference to RAs, e.g. in airing their concerns about teaching. It reports to the HoGs Committee and is represented at the Teaching Committee. Departmental representation on Faculty and College Committees is through ex-officio roles.

## **2 (vii) Workload model**

Workload allocation is well documented and is based on a points system. It is reasonably fair and transparent although some of the administrative burden is not always recognised.

There is certainly no gender inequality in terms of the total load, although some of the administratively heavy departmental academic posts (HoD, DPGS, HoG) are held by

women, there is a reasonable distribution (Assistant HoD, 8 HoGs, senior tutor, DUGS are men).

All staff are aware of the workload and its distribution as it is presented annually at staff meetings. A significant number of staff are bought out of teaching and administrative duties. Of 120 academic staff about 80 contribute to teaching and administration. This is a source of some dissatisfaction amongst staff.

The Department prides itself on a relatively light teaching load. However, RA staff carry a significant load (about 30% of an academic staff load). This has not been appropriately recognised in the past or clearly stated on job advertisements. The RA committee's first requests have initiated a review of the teaching load model and the wording on job adverts has been changed. The request for transparency on RA teaching load distribution has been accepted and the DUG will produce and circulate this document annually.

## ***2 (viii) Cover for maternity and adoption leave and support on return***

The current HoD, one female HoG have had children, and other female professors have had children, showing that children/career breaks/maternity leave do not prejudice promotion or career progression. But it is interesting in the recent lectureship appointments that the women, who are appointed are older than their male counterparts.

9 male and 3 female staff within the Department currently use the Imperial College nursery. It is popular with staff overall.

Elsie Widowson: There is only one staff member who has benefited from this scheme in the department because it has been brought in relatively recently.

The Department web-site gives examples of people who have taken part-time working and return to full-time working.

The provision of advice/information prior to maternity leave is mainly provided by HR.

Current cover arrangements during leave and the arrangements for keeping in touch with people whilst on leave are at the moment dealt with at group level, and the actions are variable. The action plan includes monitoring at Departmental level and the development of more specific guidance for HoGs.

## ***2 (ix) Timing of departmental meetings and social gatherings***

Departmental Colloquia begin at 4pm, group seminars begin at 2.30pm usually, inaugural lectures begin at 5.30pm usually – these are open to all staff and students. Departmental staff meetings begin at 1.15pm, group meetings are usually held at lunch times. In general business meetings are held between 10 and 4.

Christmas parties and summer social events are timed to allow people to bring small children.

## **2 (x) Outreach activities**

The Department organises a range of outreach activities (school visits, UCAS talks, Open Days, Undergraduate Project Open Day) coordinated by the Admissions Tutor and the School Liaison Officer.

An annual half-day Women in Science and Engineering (WISE) course for Year 10 girls includes experiments and presentations by women physicists. The annual "Big Day of Physics" is a major event for pupils and teachers, organised by the undergraduate Physics Society.

The Department encourages close interactions with secondary school teachers to share issues that arise as a result of national changes in education policy and to enable the Department to be responsive to specific problems that can arise. The links with schools will be further enhanced following our decision to participate in the ambassadors scheme for the next academic year. The new Doctoral Training Centres (DTCs) will be appointing a full time outreach officer from Oct 2009.

The school liaison officer and the admissions tutor have an equivalent teaching load allocation in respect of these activities. They are considered important activities within the department.

### **(xi) Induction and training**

Inductions tend to be carried out at Group level, with new academics meeting the HoD's Office.

All new staff are given a copy of the Department's Health and Safety booklet with their contract (it is also available on the Department's website - <http://www3.imperial.ac.uk/physics/about/safety/handbook>). Group Safety Co-ordinators publicise training courses.

The Department is preparing an induction information pack which will be supplemented by local Group information and College information when the College induction project has been completed. College has in 2009 produced an induction DVD which is sent out with contracts and published a new staff website which the Department links to (<http://www3.imperial.ac.uk/newstaff>).

Good training opportunities are available for all staff, including RAs. There are many training programmes available to all staff through the staff development unit, e.g. Development Centre for potential female HoDs, Development centre for non-professorial female staff, and the BME (Black and Minority Ethnic) Leadership Development Programme, which saw 2 post docs (1M, 1F) successfully complete the programme.

2 of the 7 non-professorial academics in the department have been on the College's women's development 3-day residential programme (for which professorial staff are ineligible). The feedback is extremely positive.

PG students are offered a wide range of transferable skills by the College.

## **2 (xii) Support for female students**

All female UGs are offered a female personal tutor, and two female academic staff act as UG welfare officers providing additional support.

The UGs have a four-year professional skills training alongside their academic coursework, which includes input from the Career office.

The UROP (undergraduate research opportunity programme) provides paid summer work to give UGs a taste of research. Local evidence shows that a considerable fraction of UROP students choose to stay in academia after their degree.

There is less specific support for the 1 year masters students at the moment.

Issues raised by female students about the uncomfortableness about certain elements of the graduate school professional skills program have been sorted on their behalf. PG students have a second supervisor scheme, a group PG advisor providing pastoral care, and Departmental PG welfare officer. Although there appears to be a lack of clarity by PGs re. the supervisory support structure.

A recent meeting with female PGs, at which the turn out was 14/46 (30%), showed they felt the Department was a supportive friendly environment and that having a female HoD has had a positive impact. They also thought that the PG rep system was a good reporting structure for generic issues. They requested a better communication link to female RAs and junior female academic staff (lectureship level) so that they could be better informed about career/family issues.

## **3 Case study: impacting on individuals**

### **Prof Lesley Cohen**

Undergraduate at Bedford College, London University and PhD at the Cavendish Laboratory in Cambridge. After four years post doc work in the USA, she returned to the UK to Imperial College in 1991 as an RA. Shortly after receiving a Royal Society URF she put together the "Voices from Women in Science" booklet as chair of the College AWISE committee. College responded by interviewing focus groups of academic women, but as an RA she was not involved. In 1998 she gave birth. In 2001 and became a permanent staff member and a Reader in 2003. From 2003 she went part-time (60%), with the start of junior school, which meant she left the department at 2.30pm every day. Her work flourished during this period and she became a professor in 2005 and head of group in 2008. She returned to full time work in 2007. She was invited to become the Athena Ambassador for the Faculty in 2007. The Physics HoD asked her to chair the Juno Committee.

### **Prof Gareth Parry**

Gareth started at Imperial as a Physics undergraduate in 1969. After many years at UCL and Oxford he returned in 1997 as a Professor of Applied Physics. In 2007 he decided to move to a 60% part-time arrangement. He continued his responsibilities as the departmental Admissions Tutor, but stepped down as HoG. As Deputy Head he is always on hand when advice is needed. The arrangement works well. As Admissions Tutor he is actively involved on the teaching side and enjoys the close interactions with schools. And he meets many talented students who apply to us – a

real pleasure. He has one main research project which is funded for the next four years and that keeps him busy when admissions duties are quieter. There are risks when moving to part-time work, either that one works nearly full time on a reduced salary or that one is left out of the day-to-day activities in the department. So far neither has happened and he is very pleased with the arrangement.

#### **Dr Juliet Pickering**

Undergraduate degree in Physics at Oxford ('87-'90), and PhD, Physics Department, Imperial College ('90-'93). Juliet continued as an RA at Imperial with some time at Harvard Smithsonian Center for Astrophysics Academic Scholar, and many research visits overseas. She was awarded a Royal Society URF in 1998, continuing at Imperial. During 2000 she was offered a future lectureship post and changed research group. In 2002 her daughter was born, and she enjoyed the superb maternity leave available, returning to work over 9 months later. She requested to work part-time, and after some discussion this was granted. For her, a balance between work and family life is essential. In 2004 she became a lecturer, taking on teaching as well as her research activities. 16 years after arriving at Imperial College, she became a permanent member of staff during 2007. In 2008 she was promoted to Reader.

#### **4 Further SET-specific initiatives**

Physics, with support from the College Learning and Development Centre, undertook a departmental staff survey. The majority of staff participated and the overall message was one of a positive and thriving department. Staff from the Development Centre who took the primary role developing the departmental survey will be providing help to develop the ASSET questionnaire, with HEFCE Leadership, Governance and Management funding.

93/129 (62%) academics responded of which 10/12 (83%) were women, and 70/202 (35%) RAs responded of which 19/70 (28%) were women. (Note that the 202 includes the research support staff who were included with the RAs).

**Key findings on M/F differences Academics:** A high percentage of female academics feel supported by the department and line manager but a significant number requested training and development in project management, research/group team leadership and influencing. Fewer Female Academics appear to have experienced informal mentoring and interest in participating in mentoring was high. Female Academics are more satisfied with their job security and pay although they feel less stimulated intellectually and are less satisfied with opportunities for taking on more ambitious projects and leadership roles.

**Some key findings on M/F differences among RAs:** A higher percentage of Female RAs take the PRDP seriously although their perception is that they do not have sufficient contact with their Line Manager and are inadequately informed of events within the Dept. A higher percentage of Female RAs feel speaking up might have negative consequences. More Female RAs are interested in developing skills than MRAs across the board. Fewer Female RAs appear to have experienced informal mentoring and a high percentage expressed an interest in mentoring. Satisfaction with recognition for achievement is lower for Female RAs.

## **5 The self-assessment process**

Since the Juno committee was formed in Nov 2007 we have been working to the Juno code which is not specifically about gender issues. Our approach is based on that of the RSC which is that “best practice for all” may be the best way to change culture and that the improved working environment will have a particularly strong positive impact on women and minority groups. Our experience is that “best practice” attracts widespread support and participation.

Our work really started with the IOP visit in 2005 and the response of the then HoD (Peter Knight). This was followed by the appointment of Lesley Cohen as Ambassador for Women in the Faculty in 2007, by which time Peter Knight was Principal of the Faculty and remaining extremely supportive, e.g. making the Ambassador a member of the Faculty Management Committee to report on these issues.

The Juno Committee was set up in Nov 2007 – membership includes:

Prof Adrian Sutton FRS (Head of Condensed Matter Theory, Director Doctoral Training Centre TSM, previously at Oxford, Royal Society URF holder 1983 - 1991).

Prof Lesley Cohen (Head of Solid State Physics, Director of PG studies, previously USA and Cambridge University, Royal Society URF holder 1993 - 2001).

Prof Gareth Parry FREng (previous Head of Solid State Physics, Departmental Admissions tutor, previously at Oxford and UCL).

Dr Fay Dowker (Reader Theoretical Physics group, Departmental Management committee member, on Admissions team).

Dr Terry Rudolph (Lecturer Quantum Optics and Laser Science, Advanced Fellowship EPSRC 2003-2007, previously in Australia, Canada, USA and Europe).

Dr Karen Yates (RA research in Solid State Physics, previously at Cambridge).

Dr Daniel Mortlock (RA researcher in Astrophysics, previously Melbourne and Cambridge).

Dr Mag Bak Maier (Internal Learning and Development Consultant within the HR Staff Development Unit, previously Staff Development Manager Bristol University, PhD - Caltech).

Christine Yates (HR Diversity and Equality Consultant).

Louise Hayward (Departmental Senior Administrator, previously Faculty Administrator).

Summarising the experience of the committee; it has senior professorial management (2 male and 1 female HoGs), one with experience of progressing within the department from RA to HoG; one who is also UG Admissions Tutor, one who is also DPGS, plus a Reader (F), a Lecturer (M), two RAs (1 male and 1 female); an HR staff development officer and an equalities and diversity officer and the Departmental Senior Administrator.

Their collective experience spans all staff and student groups, working part time, flexi-time and on short term contracts, being an academic working mother, being a fellowship holder, negotiating permanent employment contracts, working with the college unions and issues related to diversity (including sexual and gender equality).

The Juno committee reports to the departmental management meeting and to staff meetings. Heads of groups (HoGs) have engaged with all the actions requested by Juno committee.

The staff satisfaction and engagement survey (see 4 above) was the committee's main instrument for gathering qualitative evidence, developed from individual interviews with female staff. It was followed by the full WEB staff survey. The results of the survey were announced by HoD at a staff meeting in Feb 2009 and have been used by the Committee in developing the action plan.

One of the principal outcomes of the staff survey was the establishment of the RA committee. This has had an immediate and very positive impact on RAs by providing them with a mechanism to voice their concerns directly to the Departmental Management Committee.

**6 Action plan, See attached**

**7 Any other comments**