

## Institutional Context:

- Imperial College is a research intensive science and technology based institution with 13,473 full-time students (8,608 undergraduate) and an international reputation for excellence in teaching and research. Almost all academic staff are active in research and last year generated a total grant income of £286,812,000. (*Imperial College Statistics 2009-10*).
- Most undergraduate degrees are specialised, single subject degrees often to masters level with high practical content and considerable exposure to research equipment and staff. There is normally a significant (~30%) research project component.
- In addition to the research and enquiry based study that forms a part of the undergraduate curricula there are a number of opportunities for students to get involved with research (e.g iGem, Racing Green)... Perhaps the most significant of these is the long running UROP.



## Imperial UROP:

- Provides an opportunity for undergraduate students to participate in 'real' extra-curricula research.
- Started in 1980 - First of its kind in UK and based on the then experiences at MIT. - Hosted over 4000 students.
- Open to any taught Imperial student as an extra-curricula activity – most are in their 2<sup>nd</sup> or 3<sup>rd</sup> year of study.
- Now also open to any bachelor/masters student from the EEA (credit awarded by home institution).
- Selection of students is undertaken by host group – this can be competitive but is individually negotiated between students and potential supervisors.
- Participants are supported & mentored by their host research group/department.
- Typically placements are 6-12 weeks in the summer vacation, but this is flexible and some are much longer.
- Students can receive a bursary (typically £150-250 p/w) from departmental funds, research grants or specific third party sources (Research Councils, Imperial College, Alumni, Wellcome Trust).
- College funds staff for the UROP team and provides space as part of Registry.
- UROP team registers & formalises placements at college level therefore providing insurance cover, access to college services and a back-up for problems. It administers the payment of bursaries and arranges a summer party.
- Imperial UROP is well-established and sustainable, requiring only a light approach to facilitate and support it.



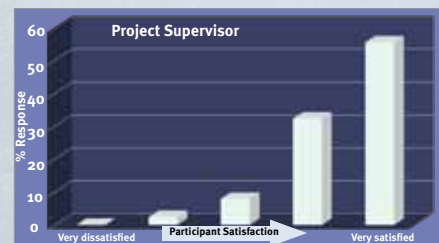
## Strengths of Imperial UROP:

### Participants:

- like UROP – 86% enjoyed the independence and responsibility.
- are satisfied with most aspects of UROP – 17% would like more money.
- ***'An amazing and insightful experience!' 'good fun and intellectually stimulating'***
- feel it helps their disciplinary understanding, & enhances their CV & career prospects.
- highly value the chance to do 'real' research.
- ***'UROP participation felt like the beginning of a research career'***

### Host Researchers:

- well motivated (& cheap) students who are low risk & often contribute significantly to research – bringing perspective & sometimes specific skills.
- build relationships with potential PhD students.
- allows more junior team members to have some experience of supervision.
- ***'We have UROP students to begin the process of fostering the next generation of research scientists ..... they often make novel & unexpected findings that lead us in new research directions.'***



## UROP - Challenges & Developments:

- Academic Credit – at the moment UROP is extra-curricular and provides extra and 'real' experience ... will this be diluted if the programme becomes a credit bearing part of a course?
- Quality – encouraging feedback and actively using it to improve the experience for both students and supervisors.
- Bursaries – finding and managing a complex array of schemes and funds.

