

## **AGP Chairman's Report 2009-2010**

### **A Personal View**

The Astronomy Grant's Panel has had a very testing year in the face of the financial problems besetting STFC. I record below my views of the process and outcomes that have recently been made public.

There were 84 standard grants and 20 rolling grants submitted and it was expected that the number of posts to be awarded would be similar if not slightly more than in 2008/09. It should be remembered that the previous review of most of this set of rolling grants took place in the first year of Full Economic Costing and these grants were awarded significant PDRA numbers in years 4 (2010-2011) and 5 (2011-2012) of their award.

The processes and guidelines for the grant reviews remained essentially unchanged from the year before and the timetable was constructed to complete the year's business in time for the grants to be announced before Christmas. The panel met during September and October to carry out the peer review and then assembled in plenary session on Nov 12<sup>th</sup> to take an overall view of the outcomes. Although at this stage not every financial detail in the successful grants had been resolved, it was clear that the panel was very close to the target spend profile in its recommendations. The outcome of the STFC prioritisation review was known to be imminent and the AGP discussed possible responses to various scenarios and set a date in January in case an additional meeting was necessary. Before the prioritisation review was implemented, the AGP was recommending 21 out of 84 standard grants with a total of 14 PDRA's and 75 PDRA's and technical posts in 18 rolling grants.

The prioritisation review outcomes were made available on December 18<sup>th</sup> and they, in themselves, made little impact on the programme of work to be recommended by the AGP. The AGP took the view that, even if a facility was to be withdrawn from the funded programmes in STFC, a scientifically excellent proposal could gather the data needed before the facility was closed and therefore should be funded despite the plans for closure. Only a very small number of proposals involved facilities due for closure and in every case the panel was confident that the proposed research would not be affected.

The chairs of the AGP sub-panels and the rolling grant panel met together on January 12<sup>th</sup> to discuss the impact of the prioritisation review on the financial envelope of the grants line itself. Whereas the STFC website implied a 10% cut in funds for grants an additional cut was made to represent the scaling down of the whole science programme due to the removal of facilities. The combined effect of these cuts reduced the first year spend target substantially and providing considerably less than the community expected.

Efforts were made within STFC to mitigate the effect of such a sharp reduction and an increased commitment of around £11.7M was secured for the first year only, with a smaller restoration in years 2 and 3 to enable a deliverable profile to be achieved for this years' awards. However, this did not address the sharp reduction in planned funds or the expected impact for future applicants of the new, lower baseline.

In the face of this financial situation the AGP agreed two basic principles. Firstly, work that was to be funded had to be funded at a level that would make its execution possible. Secondly, that scientific excellence should remain the objective of the funding decisions. The financial target meant that effectively 17 PDRA posts had to be removed from the recommendations made prior to the review.

The number of standard grants recommended was therefore reduced to 19 funding 12 PDRAs and the reduction in PDRA support for rolling grants was from 75 to 60. These reductions in rolling grant support were calculated to reflect the quality rating gained by the grant in the peer review process. High quality grants lost very little, those below them lost more. The reductions also reflected the size of the PDRA population being recommended. This was done in order that there would be no advantage gained from decisions to submit one or many rolling grants from large departments. Out of the 18 rolling grants found to be above the quality threshold necessary for funding, 6 were so reduced in size by the additional round of cuts that they were below the threshold for a rolling grant. This threshold is taken by the AGP to be 2 PDRA's. At this level and below it is statistically more effective for the academics to bid for standard grants than be constrained by a rolling grant which denies them the opportunity to bid for another three years. The final outcome then was that 12 grants were recommended as rolling grants. It should be made very clear that the grants that lost their rolling grant status as a result of these cuts were at high levels of international competitiveness and quality. In normal times STFC would have been pleased to fund them.

The reduction in PDRA numbers in many rolling grant groups will be severe. It was known at the start of the grants round that the numbers of PDRA awarded in 2006 continued in years 4 and 5 of those grants at levels which were not sustainable within the current financial envelope. If all these posts were continued, there would be very little flexibility for the AGP to adjust for the outcomes of the current review. The commitments could not be honoured. PPAN was made aware of this situation in May 2009 and accepted the implications. Nonetheless the additional cuts borne by the grants line will have devastating long term effects on the community. Standard grants are an excellent vehicle for some kinds of research programmes, especially where the problem is well defined and relatively modest in scale. Many UK research groups have achieved international prominence using standard grants as their funding base. Rolling grants on the other hand have given UK groups the opportunity to develop critical mass at the international level, maintain technical excellence and provide science management opportunities to train young staff. These grants have contributed directly to the exceptional performance of the UK in many branches of Astronomy, placing us second only to the US in measured outputs. It has taken decades to achieve such a position working with the modest budgets available to the UK Astronomy community. Few other areas of UK science can make a claim to such a high world position. There is no doubt that the grant funding levels now being considered will bring many rolling grant groups

below the level of critical mass needed to compete at the international level.. Simple modelling of the grant outcomes of recent rounds indicate that as many as 70% of the rolling grant groups will fall below the size threshold mentioned above. It is difficult to understand how STFC can deliver its science programme with such a reduced community. Science outcomes, facility design and fabrication, knowledge exchange and public outreach will all suffer dramatically as world class groups are reduced in size to a level at which they simply cannot compete- a level at which university interest in supporting them will atrophy.

The AGP as a body of independent scientists wrote to Lord Drayson as part of his structural review of STFC, to express our concerns at the increasing imbalance between the funds available for facilities and those available for their exploitation.

On January 27<sup>th</sup> the results of the AGP's work were presented to PPAN and the very serious impact of the funding cuts was made clear to them. The members of PPAN clearly accepted our concerns and our warnings about the future trends, and where they might lead, but they were not able to propose any remedies within the funding envelope at their disposal.

Following the presentation to PPAN the office made further efforts to soften the effects of the sudden reduction of rolling grant posts by offering extra short term support for a few posts at several groups and also managed to increase the number of standard grants funded from 19 to 20. Small those these changes are, they have been welcome. The STFC Executive have now implemented the AGP recommendations without alteration.

I have completed my three year tour of duty as AGP chair at a very sombre time, watching the loss of much excellent science and the increasing difficulties of some inspiring and world renown research groups. STFC has not yet managed to overcome the issues which beset its formation and the impact of the economic climate has yet to fall on us.

However, two factors have been a continual source of pleasure to me throughout my chairmanship. Firstly, I have been privileged to work with members of the astronomy community who have shown deep scientific knowledge, a capacity for much hard and under-rewarded work and an impressive integrity in their actions and judgements. They have had to make difficult and unpleasant decisions and have always acted in the best interests of the community. I thank them all and I am profoundly grateful for their hard work and patience.

Secondly, it has been a pleasure to witness at first hand the professionalism and commitment of the grants team at STFC ( Kim, Diane, Rachel and Andi ) who on every occasion have tried to maximise the benefit available to their scientific colleagues. They have been very thoughtfully guided by Colin Vincent who has conspicuously carried the interests of the astronomy programme as the highest priority. The task of Chairman would have been impossible without the support and encouragement of these excellent and knowledgeable STFC staff. The whole astronomical community benefits from their experience and engagement with our science.

Finally I would like to wish my successor, Andy Lawrence, well in the difficult tasks ahead.

Mike Cruise