Call for working group members:

Shaping the future of UK plant science

The UK Plant Sciences Federation (UKPSF) is calling for working group members to help shape the future of UK plant science, following the release of its recent report on the status of UK plant science.

Deadline for applications: Tuesday 22nd April 2014.

The report is the result of an extensive consultation with the scientific community, providing a robust analysis of activities across the UK's plant science sector. It identifies strategic priorities and makes recommendations to build on existing strengths, fill critical gaps and guarantee success in meeting important 21st century challenges.

To follow-up from the report, the UKPSF is forming working groups to take forward specific priorities and ensure the recommendations are implemented. Working groups will focus on the following five key areas, which are described in more detail on the next page:

1. **Training and skills**
2. **Translation**
3. **Funding**
4. **Regulation**
5. **Portfolio balance**

Each working group will be expected to develop an implementation plan for the UK plant science community, outlining clearly defined actions and associated time scales. Working groups will meet at least twice (in May and September/October 2014) and report at the UKPSF AGM in November 2014. Reasonable UK travel costs to attend meetings will be reimbursed.

To express an interest in taking part, individuals should send the following information to mimitanimoto@societyofbiology.org by **22nd April 2014**:

- Name
- Position
- Organisation
- Which group(s) they are applying to join
- An outline (in three to six sentences) of why they are applying to the group and what they hope to bring.

The report, *UK Plant Science: Current status and future challenges* can be downloaded from https://www.societyofbiology.org/policy/ukpsf/uk-plant-science-status-report

UKPSF working group topics

1. Training and skills

Key questions:

- How do we ensure that education and training meets the needs of industry and employers?
- How do we inspire a new generation of plant scientists?

Background: The report identifies skills shortages and the need for improved training in strategically important areas including crop science, horticultural science, plant pathology, taxonomy/identification, physiology, soil science and field studies. It also recognises an uneven distribution of expertise across UK research institutions whereby, in some specialist fields, the majority of skilled scientists are based at non-teaching organisations. These shortages can be addressed by more and better-targeted apprenticeships, employee training, industrial studentships, plant science degree content, further education and postgraduate courses.

Plant science is poorly represented in school biology curricula, providing teachers with little incentive to invest time in plant science education, and few opportunities to gain professional development in the subject. Consequently, most students beginning bioscience degree courses show little interest in, or knowledge of plant science.

2. Translation

Key question:

- How do we enable effective translation of plant science research into applications?

Background: UK plant scientists identified knowledge exchange as the biggest weakness in the UK's research and funding strategy. Although plant science research has led to a broad range of intellectual properties, there remains unlocked potential for translating basic scientific knowledge into useful applications. Routes and networks to facilitate public-private partnerships will help to strengthen the scientific community. However, mechanisms to support translational research must be simple, stable and readily accessible, to encourage the level of uptake necessary to maximise beneficial innovation.

3. Funding

Key question:

- How do we increase investment in plant science and create a stable funding strategy in the long term?

Background: Plant science currently receives less than 4% of UK public research funding. Total investment in UK plant science from Government, levy boards and charities is approximately £125m per year.

The withdrawal of Government funding from near-market research in the 1980s, followed by annual cuts to Defra's R&D budget since 2005, have led to a serious decline in applied plant science research and skills. BBSRC has been under pressure to fill the gap in applied research and resources are now spread more thinly.

Without sustained funding for fundamental plant science alongside financial support for applied and translational science, the research system risks fracture. The UKPSF report recommends that Government and industry must work together to build capacity by doubling current funding for plant science.

4. Regulation

Key question:

- How do we facilitate the creation of regulatory frameworks that are evidence- and risk-based, transparent and enabling of innovation?

Background: Plant scientists expressed concerns that the EU regulatory environment creates significant barriers to innovation in several areas. In particular, these were:

- High costs, long timescales and commercial uncertainty with bringing GM crops to market in Europe.
- Legislation on access and benefit-sharing arrangements relating to the use of plant genetic resources could discourage rather than encourage the use and exchange of such resources.
- The change from a risk- to hazard-based approach to decisions on approval or withdrawal of agrochemicals, threatens to reduce crop yields and increase production costs.

5. Portfolio balance

Key question:

- How do we create and maintain a balanced portfolio of research across the UK's plant science sector?

Background: Maintaining activities across the breadth of plant science research becomes increasingly difficult as funding priorities change and niche skills are eroded.

About the UK Plant Sciences Federation

The UK Plant Sciences Federation (UKPSF) is a special interest group of the Society of Biology that brings together the plant science community in the UK to:

- Increase understanding of the significance of plant science.
- Formulate a coordinated strategy and vision for plant science that will be used to inform policy.
- Improve the general funding environment for UK plant science research and education.
- Create a forum for debate that is independent and inclusive.
- Provide a focus and contact point for UK plant science.
- Support efforts to inspire, educate and train the next generation of plant scientists.

UKPSF Member Organisations

Agriculture and Horticulture Development Board
Association of Applied Biologists
BASIS Registration Ltd
Bayer
Biochemical Society
Biosciences KTN
British Crop Production Council
British Ecological Society
British Society for Plant Pathology
British Society of Plant Breeders
Food and Environment Research Agency
Forest Products Research Institute
GARNet – Arabidopsis Research Community
Gatsby Plant Science Summer School Project
Genetics Society
The Linnean Society of London
Monogram – Cereal and Grasses Research Community
Oxford University Press
Plant Bioscience Limited
The Rosaceae Network
Royal Botanical Gardens, Kew
Royal Microscopical Society
Science and Plants for Schools
SCI Horticulture Group
Society for Experimental Biology
Society for General Microbiology
Syngenta
UK-BRC – Brassica Research Community
UK-SOL – Solanaceae Research Community
Unilever
VeGIN – Vegetable Genetic Improvement Network
Wiley-Blackwell

www.plantsci.org.uk

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