Bacterial Plant Diseases

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Bacterial Plant Diseases – a multi-funder programme

• The Bacterial Plant Diseases (BPD) programme is being led by BBSRC, but is co-funded by Defra, NERC and the Scottish Government.

• The programme reflects the remits, missions and priorities of the four funders.

• The programme has been co-designed by the funders and all decisions are taken jointly.
The funders

• BBSRC – UK’s largest public funder of non-medical life sciences, our vision is to push back the frontiers of biology to deliver a healthy, prosperous and sustainable future.

• NERC – UK’s leading public funder of environmental science tackling complex problems, using a deep understanding of environmental science and a whole-systems approach

• Defra – UK government department responsible for safeguarding the natural environment, supporting the UK’s food and farming industry, and sustaining a thriving rural economy

• SG – has a range of responsibilities encompassing the economy, education, health, rural affairs and environment, including the implementation of plant health requirements, in Scotland.
Background – the Strategic Priorities Fund

• Strategic Priorities Fund (SPF) set up by BEIS to:
  – Drive an increase in high quality multi-disciplinary and inter-disciplinary research and innovation;
  – Ensure that UKRI’s investment links up effectively with cross-departmental research and innovation priorities and opportunities;
  – Ensure the system is able to respond to strategic priorities and opportunities.

• BBSRC and NERC bid for £18M for a programme on Bacterial Plant Diseases, with co-funding from Defra and SG, and were successful

• Funding from SPF is time-limited and there are constraints on when spend can start and finish on this programme

• Two phases of funding agreed by the funders…
Bacterial Plant Pathogens – Phase 1

The ‘BRIGIT’ *Xylella* project

• Led by Saskia Hogenhout at the John Innes Centre, with a variety of collaborative partners

• Focuses on *Xylella fastidiosa* and its interaction with plant hosts, insect vectors and the wider environment

• Seeks to understand the potential threat that *Xylella* poses to the UK’s crops and wild plants, and inform strategies for surveillance and prevention of its introduction and spread

https://www.jic.ac.uk/brigit/
Bacterial Plant Diseases – Phase 2

Call for proposals aimed at understanding bacterial diseases of plants

• Focus on the pathogen, host plant, vectors and/or wider environment
• Focus on threats to UK plant health
• Xylella not excluded but must complement Phase 1
• Multidisciplinary proposals welcomed
• Includes all bacteria affecting plants, plus phytoplasmas
Bacterial Plant Diseases – Phase 2

Applications should ideally address one of five themes:

• Effects of environmental change
• Transfer between hosts
• Factors affecting pathogenicity
• Effects of soils/soil microbiome
• Understanding host resistance and susceptibility

Diagnostics, detection, modelling, methods development etc. should be part of a wider research project.
What do the funders want?

• We want to fund a programme of high quality research to understand how bacterial diseases infect key crops, ornamentals and wild plants, and the threats they pose to the UK.

• To deliver this we are looking for:
  – Excellent research which is of use to stakeholders
  – Outputs which can be used to inform policy
  – Partnerships across disciplines and wider stakeholders to gain new knowledge and deliver solutions to bacterial diseases
What is excluded from the call?

- Post-harvest contamination of crops
  - This call is about understanding infection of the living plant and transmission of its bacterial pathogens
- Breeding resistant plants
  - Information generated through the grants funded may well inform breeding strategies in the future, but this is not the aim of this call
- Transmission of pathogens to humans via plants (particularly foods)
  - The call aims to understand the transmission of pathogens between plants
Importance of stakeholder engagement

- UKRI and its research community places value and importance on this to ensure science reaches beyond scientists.
- Science provides the ideas and understanding to open entirely new policy angles and businesses and improve the resilience and productivity of existing industries.
- Stakeholders include industry, land-owners, farmers, nurseries, charities, NGOs and organisations which have an interest in the outputs of this research.
## Timetable of activities

<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tr>
<td>Pre-announcement of the call</td>
<td>4 March 2019</td>
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<tr>
<td>Launch of the call</td>
<td>20 May 2019</td>
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<td>Town Meeting</td>
<td>21 June 2019</td>
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<td>Application deadline</td>
<td>25 July 2019</td>
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<td>Assessment meeting</td>
<td>December 2019 (tbc)</td>
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<td>Research grants awarded</td>
<td>February 2020 (tbc)</td>
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How to apply

• Full details on BBSRC website (call document)
• Check your eligibility in advance – not standard UKRI eligibility
• Ensure all of your Co-Is are eligible to apply
• If you’re not registered on Je-S, do it ASAP (it can take a while)
• Closing date is 4pm on 25th July and there is no flexibility in the system!
• If you have questions, please email us: plant.bacteria@bbsrc.ukri.org
Assessment process

• Applications sent to independent reviewers
• Applicants have the chance to comment on reviews
• Applications, reviews and rebuttals are sent to the assessment panel
• Panel members assess applications for scientific quality and strategic relevance
• Rank-ordered list produced to guide funding of proposals
Programme coordination

The funders hope to appoint a part-time coordinator to bring added value to the programme. Role of this person would be to:

• Derive synergy across the funded projects
• Assist with developing greater links with stakeholder groups
• Liaise with policy makers and the media

The funders hope that a coordinator will be in post by the time the grants are funded
Questions?
Breakout sessions

Breakout sessions are your opportunity to identify priorities for applications, discuss potential areas for grant applications, identify the expertise needed and identify potential collaborators.

We suggest four breakout groups. Two syndicate rooms are available, and there is room at each end of the plenary room.

We suggest you self-organise based on the themes in the call text, or any new ones you suggest.
Breakout sessions - 2

Over the lunchbreak:

• Sign up to ONE area to discuss
• We will pick the four most popular ones…
• People signed up to other areas will need to redistribute themselves

One of the funders will facilitate each group, and someone will need to volunteer to feed back to plenary.