

AGRI-SCIENCE CHEMICAL BIOLOGY NETWORK

Vehicle for translation:
Pioneering a cross-academic, industry
and -government network





MULTIDISCIPLINARY APPROACHES: DRIVING DEVELOPMENT OF TOOLS & TECHNOLOGIES FOR THE AGRISCIENCES COMMUNITY

VISION: The food, fibre and fuel requirements of our ever-increasing population are some of the major challenges facing society. This is resulting in a clear need for innovation and technology to increase crop productivity in a sustainable way. It is therefore vital that existing and new technologies be applied across the agri-sciences, (defined in this context as plant, fungal and insect sciences), with multidisciplinary approaches being the drivers enabling this. Chemical Biology through *physical science innovation* (in e.g. chemistry, physics, mathematics, engineering) is able to tackle biological problems on a molecular level and in so doing will lead to the development of novel technologies that will address future agri-science needs.

AIMS: AGRI-net will foster collaborations between leading cross-disciplinary groups and encourage partnerships with "end-users". This will provide opportunities to further develop high-impact multidisciplinary research targeted at one of the world's grand challenges, Crop Sustainability, and will strengthen the development of next-generation solutions for the agri-sciences. This type of cross fertilisation helps to provide realistic and accurate problemled pull for newer technologies and inserts an additional technical push into established technologies

Exemplars of potential challenges that could be addressed through translation of chemical biology tools and technologies

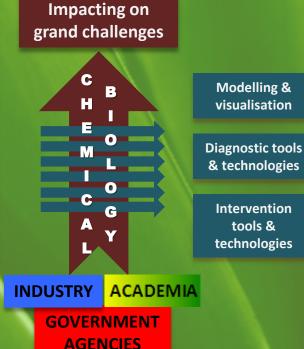
Control weeds, disease and pests

Minimise negative environmental impact – e.g. reduce greenhouse gas emissions

Improve water use efficiency

Increase photosynthetic efficiency

Improve chemical agronomic and agro-ecological control measures





UNLOCKING THE POTENTIAL OF THE AGRI-SCIENCE CHEMICAL BIOLOGY RESEARCH LANDSCAPE

AGRI-net MISSION:

- Provide a unique communication forum for academia, industry and government agencies whose interests are focused on tackling crop sustainability and protection using Chemical Biology tools and technologies.
- Enable both organically formed and focused collaborations between like minded researchers wanting to engage in multidisciplinary research addressing agriscience needs.

A MULTILEVEL PROGRAMME:

- Host showcase "show-&-tell" events, scientific creativity
 "sandpit" events, industrial based conferences and seminars.
- Provide access to a variety of web-based systems, including a state-of-the-art virtual networking environment, which can be used for meetings, discussions and collaboration between participants in real time without need for co-location.
- Fund feasibility studies based upon ideas and strategic themes arising from the network interactions.
- Provide a platform to steer future research and policy directions.
- Encourage external outreach to engage with the general public.
 This is essential given the societal impact of the global challenge that the network is addressing.







FORGING AN INTERNATIONAL COLLABORATIVE <u>AG</u>RI-SCIENCES <u>RESEARCH INFORMATION NETWORK</u>

Contact details:

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