

Five Alarm Bio and Babraham Institute collaborate on research into biology of aging

Cambridge, April 2024. Five Alarm Bio is pleased to announce the initiation of a collaboration with Dr. Ian McGough, group leader in the Signalling programme at the Babraham Institute, on the biology of aging, investigating how the cell's quality control apparatus changes as organisms age.

Our cells are constantly repairing the chemical damage that everyday living causes, but as we age this process becomes less efficient, resulting in accumulation of defects that can cause disability and disease. Five Alarm Bio is exploring new ways to slow or prevent this damage accumulation, to create new, safe drugs for the diseases of older people.

We are delighted to take this programme forward with a research collaboration with Dr. Ian McGough from the Babraham Institute. The McGough lab is researching ribosomopathies, a group of diseases in which ribosomes, the cell's protein-making machinery, malfunction. Changes in protein production lead to a number of different diseases in humans ranging from tissue-specific defects to cancer. Ian and his team use the fruit fly *Drosophila* as a model to study the effect of different ribosome misfunctions on a whole organism. By understanding the precise mechanisms that go wrong, they hope to identify targets for treatments for these diseases as part of the Institute's mission to improve lifelong health

Initial work has identified exciting synergies between the McGough lab's expertise and Five Alarm Bio's discovery programme, with Five Alarm's compounds showing significant effect on *Drosophila* cells. Future research will investigate whether these compounds can also help to 'cure' the flies, and potentially treat other fly models of diseases of old age in humans.

"This sort of collaboration is really valuable to both of us" said Five Alarm Bio's, CSO Dr. William Bains. "Our compounds provide Ian with unique probes for his research, and his flies provide us with a great test for our science in a living organism. It is science that neither of us could have done alone"

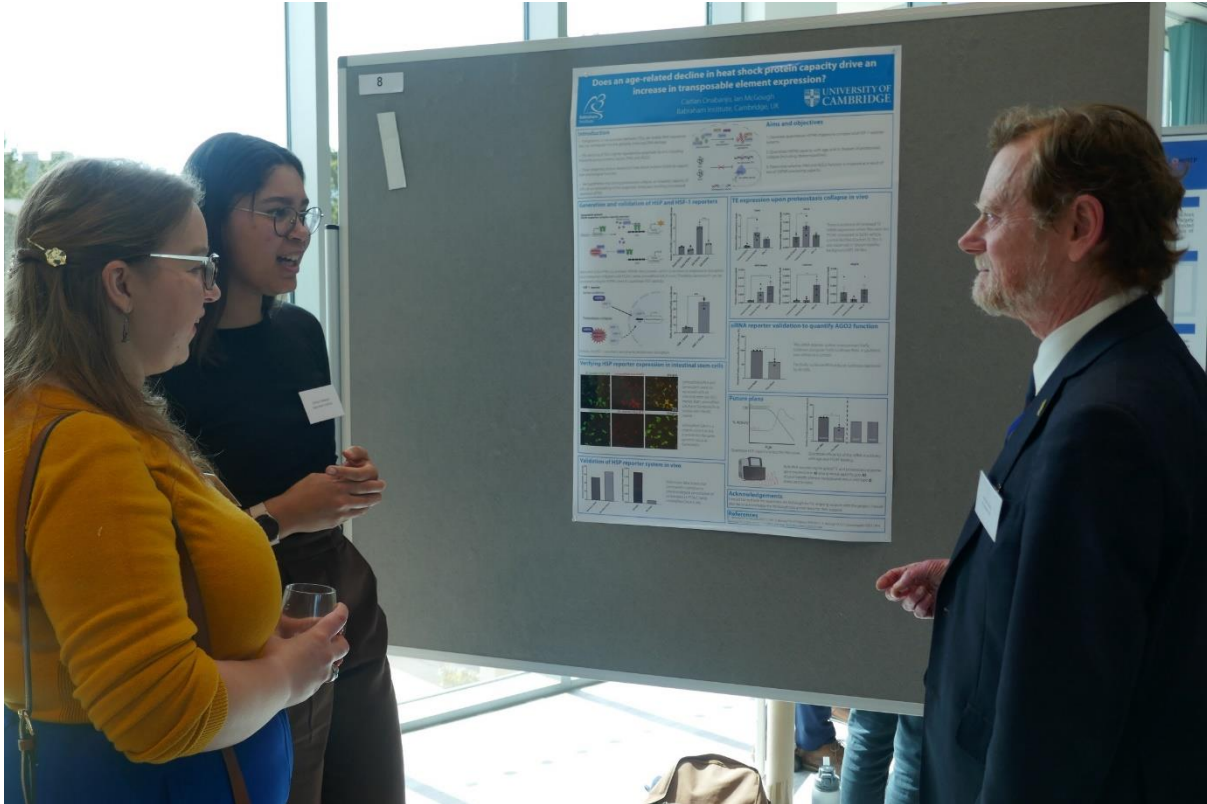
"Our group ordinarily does basic science" said Dr. Ian McGough. "This collaboration with Five Alarm Bio provides us an opportunity to take what we have learned from basic research and apply that in the development of solutions to medical problems, in this case the potential treatment of ribosomopathies.

This research was funded by the UKRI-BBSRC Campus Innovation Award (CIA) via the Babraham Research Campus Collaboration Fund. These awards support a wide range of collaborative engagements across the Babraham Research Campus, aiming to bridge the gap between different disciplines, groups, and between academia and industry.

"This is an amazing opportunity to leverage the world-class skills at the Babraham Institute to advance both basic science and our programmes." Said Five Alarm Bio CEO Dr. Janette Thomas.

“Our collaborative work with Ian, and the grant that supports it, is just one example of the value of siting Five Alarm Bio on the Babraham Research Campus.”

Additional material



Caption: "Dr Helen Mizen (left) and Dr. William Bains (right) from Five Alarm Bio discuss the McGough group project with McGough group PhD student Caitlan Onabanjo at the Proteostasis Conference at Babraham, May 2024"

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About Five Alarm Bio Ltd.

Five Alarm Bio is a drug discovery company deploying new understanding of the chemical damage associated with aging to discover treatments for serious illness. Our novel approach leverages well-known, inherently safe biology with broad potential therapeutic application. Our small molecules promise to be potential

treatments for a range of diseases and disabilities afflicting older people. For more information, please visit www.fivealarmbio.com

About the Babraham Institute

The Babraham Institute undertakes world-class life sciences research to generate new knowledge of biological mechanisms underpinning ageing, development and the maintenance of health. Our research focuses on cellular signalling, gene regulation and the impact of epigenetic regulation at different stages of life. By determining how the body reacts to dietary and environmental stimuli and manages microbial and viral interactions, we aim to improve wellbeing and support healthier ageing. The Institute is strategically funded by the Biotechnology and Biological Sciences Research Council (BBSRC), part of UK Research and Innovation, through Institute Strategic Programme Grants and an Institute Core Capability Grant and also receives funding from other UK research councils, charitable foundations, the EU and medical charities.

About Babraham Research Campus

Babraham Research Campus Ltd is responsible for the management and commercial development of the Babraham Research Campus. Babraham Research Campus is distinct in its co-location of 60 bioscience companies with the Babraham Institute, a world-renowned research organisation which receives strategic funding from the Biotechnology and Biological Sciences Research Council (BBSRC). The aim of the Campus is to support UK bioscience through academic research, but also with facilities and capabilities for early-stage and growing commercial organisations. The Campus provides companies laboratory and office space, networking and collaboration opportunities, together with access to outstanding scientific facilities in an ideal geographical location at the core of the Cambridge cluster.

About BBSRC-UKRI

The Biotechnology and Biological Sciences Research Council (BBSRC) is part of UK Research and Innovation, a non-departmental public body funded by a grant-in-aid from the UK government.

BBSRC invests in world-class bioscience research and training on behalf of the UK public. Our aim is to further scientific knowledge, to promote economic growth, wealth and job creation and to improve quality of life in the UK and beyond.

Funded by government, BBSRC invested £451 million in world-class bioscience in 2019-20. We support research and training in universities and strategically funded institutes. BBSRC research and the people we fund are helping society to meet major

challenges, including food security, green energy and healthier, longer lives. Our investments underpin important UK economic sectors, such as farming, food, industrial biotechnology and pharmaceuticals.