

PLANT SYNTHETIC BIOLOGY POSITIONS

BBSRC/EPSRC OpenPlant Synthetic Biology Research Centre, University of Cambridge



OpenPlant



OPENPLANT SYNTHETIC BIOLOGY RESEARCH CENTRE

OpenPlant is a BBSRC-EPSRC funded Synthetic Biology Research Centre. It is based in the United Kingdom and is a collaboration between the University of Cambridge and the John Innes Centre and The Sainsbury Laboratory, Norwich. The OpenPlant SBRC is focused on the development of open foundational technologies for plant synthetic biology and their application for engineering new traits in crop systems. OpenPlant (i) funds interdisciplinary efforts in plant Synthetic Biology, to explore novel foundational technologies and applications, build shared resources and provide a point of exchange for young scientists and entrepreneurs; (ii) promotes two-tier intellectual property models that will promote sharing of DNA components and freedom-to-operate for commercial applications of plant synthetic biology, and (iii) addresses responsible innovation, and explores the potential wider impacts of synthetic biology on sustainable practices in agriculture, bioproduction, land use and environmental conservation. (<http://www.openplant.org>).

POSTDOCTORAL RESEARCH MANAGER (FIXED TERM) Marchantia DNA Part Library and Engineering

Department of Plant Sciences, University of Cambridge (RA7, pt 46)
<http://www.jobs.cam.ac.uk/job/6995/> Closing date 11th June 2015

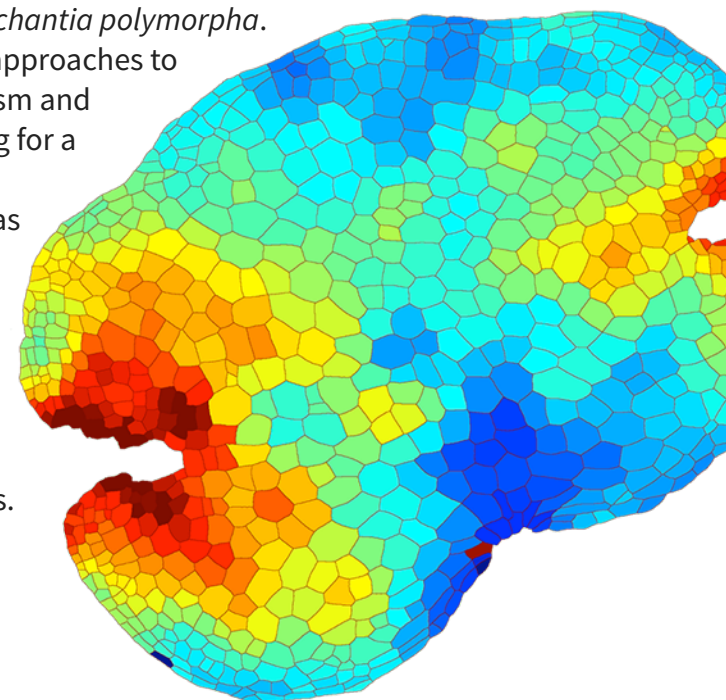
A position is open for a senior postdoctoral research associate to help manage the OpenPlant laboratory at the Department of Plant Sciences at the University of Cambridge. The OpenPlant Laboratory in Cambridge is directed by Dr. Jim Haseloff, and work there will focus on the development of foundational technologies for engineering of the model plant *Marchantia polymorpha*. The newly renovated laboratory houses equipment for automated DNA assembly, genome editing, plant transformation, cytometry and high throughput microscopy. As well as research activities, the appointee will help manage the laboratory, including supervision of a research technician and training and oversight of maintenance of instrumentation. The successful candidate will have a strong background in plant molecular biology or synthetic biology, including a PhD in a relevant area. Experience with synthetic biology techniques, DNA assembly, cytometry, microscopy and laboratory management will be advantageous. The position is funded until August 2019. For more information contact Jim Haseloff (jh295@cam.ac.uk).

POSTDOCTORAL RESEARCH ASSOCIATE (FIXED TERM) Plastid Modification and Transformation

Department of Plant Sciences, University of Cambridge (RA 7, pt 39)
<http://www.jobs.cam.ac.uk/job/7007/> Closing date 12 June 2015

A 2.5 year position is open for a postdoctoral research associate based at the OpenPlant Laboratory in Cambridge, based in the Department of Plant Sciences at the University of Cambridge, and directed by Dr. Jim Haseloff. The appointee will develop a research project based on the development of new synthetic biology tools for engineering the plastid genome in the model plant *Marchantia polymorpha*.

Work with *Marchantia* allows streamlined approaches to genome modification, secondary metabolism and morphogenetic engineering. We are looking for a highly motivated post-doctoral scientist to work in this area. The position is available as a full-time position for 2.5 years. The successful candidate will have a strong background in plant molecular biology or synthetic biology, including a PhD in a relevant area. Experience with synthetic biology, plant molecular biology and advanced microscopy will be advantageous. For more information contact Jim Haseloff (jh295@cam.ac.uk).



RESEARCH TECHNICIAN (FIXED TERM)

Marchantia Engineering

Department of Plant Sciences, University of Cambridge (Tech T4 pt29)

<http://www.jobs.cam.ac.uk/job/5637/> Closing date 10th June 2015

A position is open for a research technician in the OpenPlant Laboratory in Cambridge, based in the Department of Plant Sciences at the University of Cambridge, under the direction of Dr. Jim Haseloff. The appointee will provide technical support for the OpenPlant Laboratory in Cambridge. Work there will focus on the development of foundational technologies for engineering of the model plant *Marchantia polymorpha*. The newly renovated laboratory will house state of the art equipment for automated DNA assembly, genome editing, plant transformation, cytometry and high throughput microscopy. The appointee will provide technical support for plant transformation and culture work, microbiological and molecular biology experiments, as well as general laboratory support work. The successful candidate will have a background in molecular biology or synthetic biology, and demonstrate an ability to work independently. Experience with synthetic biology techniques, DNA assembly, cytometry, microscopy and laboratory management will be advantageous. The position is funded until August 2019. For more information contact Jim Haseloff (jh295@cam.ac.uk).

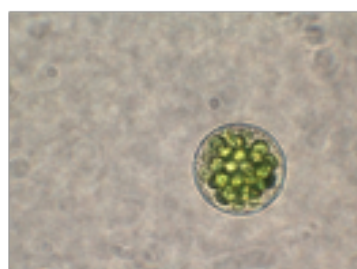
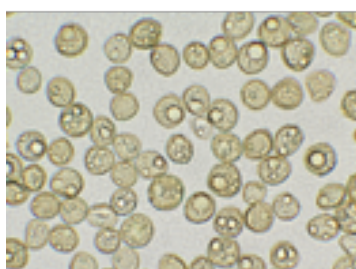
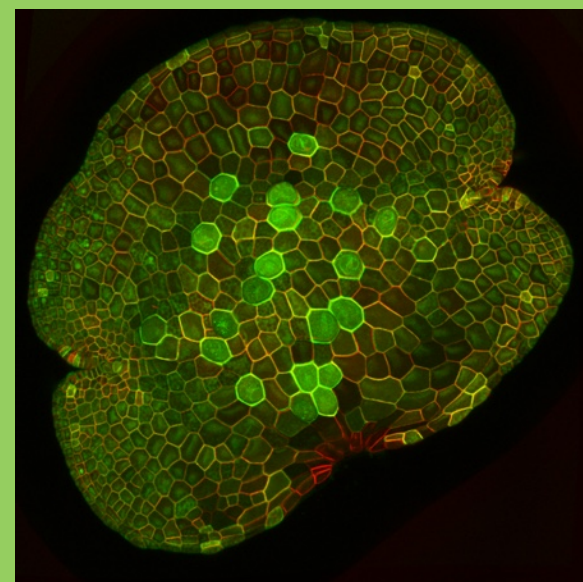
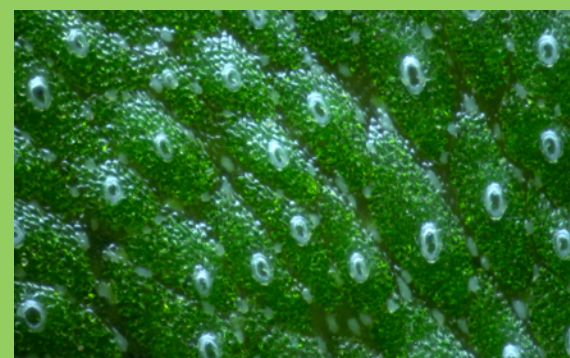
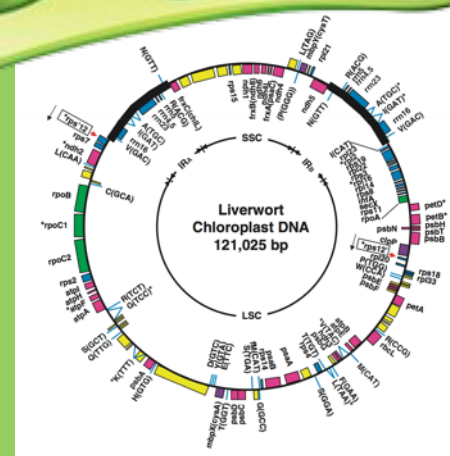
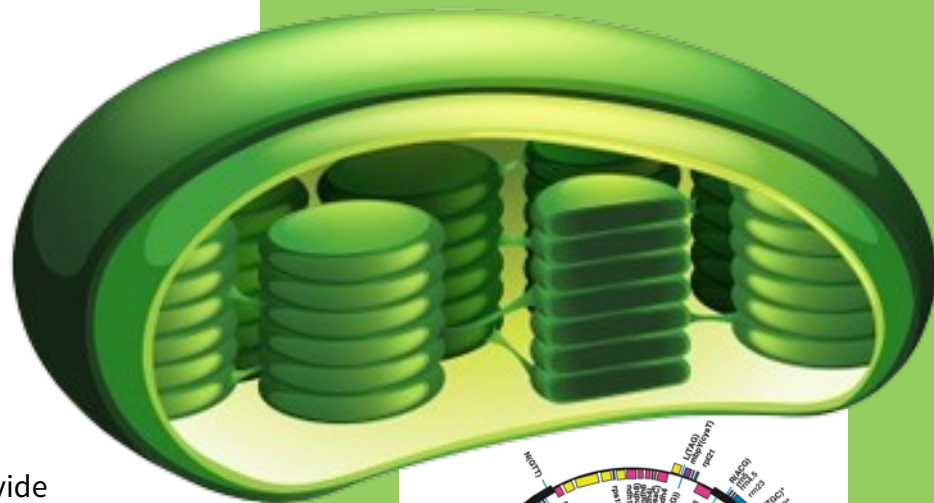
POSTDOCTORAL RESEARCH ASSOCIATE (FIXED TERM)

Plant Biotechnology in Liverworts

Sainsbury Laboratory, University of Cambridge

<http://www.jobs.cam.ac.uk/job/6972/> Closing date 10th June 2015

Applications are invited for a Post-doctoral Research Associate position in the group of Dr Sebastian Schornack at the Sainsbury Laboratory (SLCU), Cambridge University, to develop tools for manipulation of early descendant land plants. The successful candidate will develop new molecular biological and genetic resources (in particular TAL effector activators and repressors) to modulate gene expression in early descendant plants (e.g. Liverworts/hornworts) or to achieve genome editing (TALENs). Main model organisms will be the *Agrobacterium*-transformable liverwort *Marchantia polymorpha* and related species. Along with the Schornack group's general interest in understanding principles of plant colonisation by filamentous microbes, the candidate will have the opportunity to explore projects involving beneficial and/or detrimental plant-microbe interactions with liverworts and hornworts. The candidate will be provided with horticultural/technician support and will be able to team up with post docs studying plant-microbe interactions in angiosperms. Candidates must have or be close to finishing a PhD in a relevant discipline (e.g. plant biology, plant biotechnology). Knowledge of modular cloning strategies such as GoldenGate cloning is essential. Previous experience with synthetic biology or genome editing tools such as TAL effectors as well as handling of sterile plants, *Agrobacterium*-mediated plant transformation or knowledge on plant-microbe interactions is desirable. Proficiency in sequence analysis, general biological databases, qPCR analysis and confocal fluorescence microscopy is also required. For more information, contact Sebastian Schornack (Sebastian.Schornack@slcu.cam.ac.uk).



POSTDOCTORAL RESEARCH ASSOCIATE (FIXED TERM)

Plastid Genome Engineering

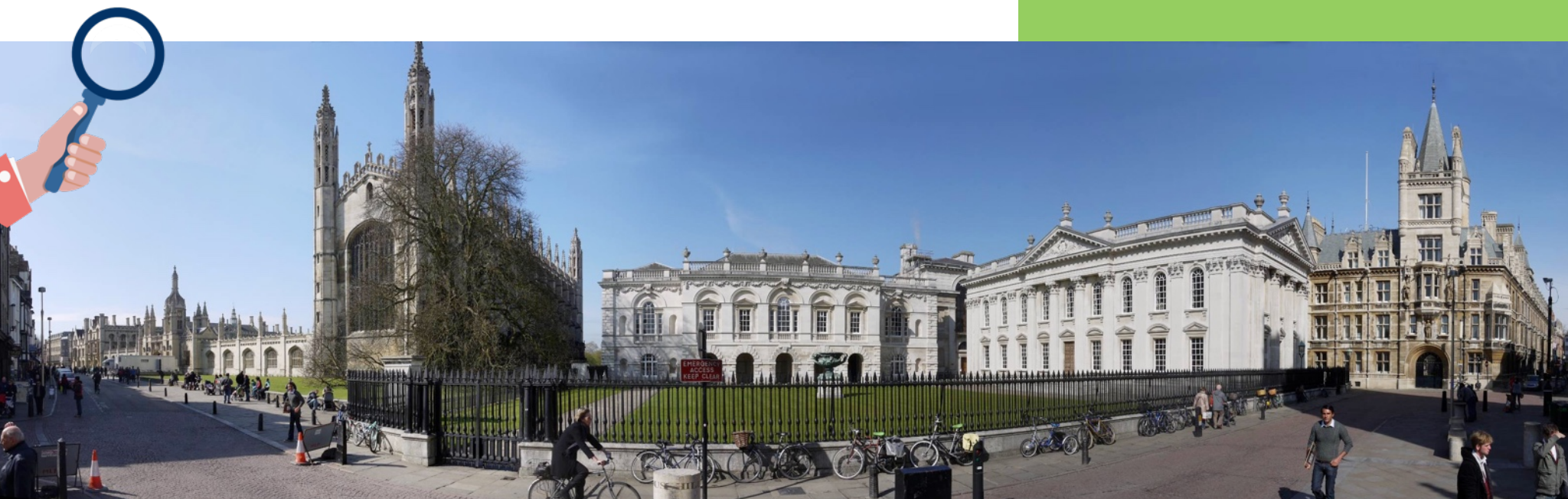
Department of Pathology, University of Cambridge (RA 7, pt 39)

<http://www.jobs.cam.ac.uk/job/6351/> Closing date 19th June 2015

A position is open for a postdoctoral research associate as part of the OpenPlant Synthetic Biology Research Centre in the Department of Pathology at the University of Cambridge, under the direction of Dr. Jim Ajioka. The appointee will develop a research project based on the development of new synthetic biology tools for engineering the plastid genome in the model plant *Marchantia polymorpha*. Work with *Marchantia* allows streamlined approaches to genome modification, secondary metabolism and morphogenetic engineering. We are looking for a highly motivated post-doctoral scientist to work in this area. The position is available as a full-time position for 2.5 years. The successful candidate will have a strong background in plant molecular biology, yeast genome engineering or synthetic biology, including a PhD in a relevant area. Experience with synthetic biology approaches, handling large DNAs, plant or yeast molecular biology will be advantageous. For more information contact Jim Ajioka (ja131@cam.ac.uk)



OpenPlant



UNIVERSITY OF CAMBRIDGE

The University of Cambridge is one of the world's oldest and most successful universities. It values diversity and is committed to equality of opportunity. More information about working at the University and living in Cambridge can be found at <http://www.cam.ac.uk/research> and <http://www.jobs.cam.ac.uk>

DEPARTMENT OF PLANT SCIENCES

The Department has been central to innovation and teaching in Plant Science for many years. Cambridge has been home to numerous famous botanists, including John Ray and Stephen Hales in the 17th and 18th centuries, Darwin's mentor JS Henslow in the 19th century, and Blackman, Tansley and Godwin in the 20th century (<http://www.plantsci.cam.ac.uk/about/history>). Their legacy continues today with vibrant research and teaching in the Department of Plant Sciences. These activities focus on three strategic areas: global food security, synthetic biology and biotechnology, and climate science and ecosystem conservation. More information can be found at <http://www.plantsci.cam.ac.uk> (Department) and <http://www.haseloff-lab.org> (Haseloff Lab)

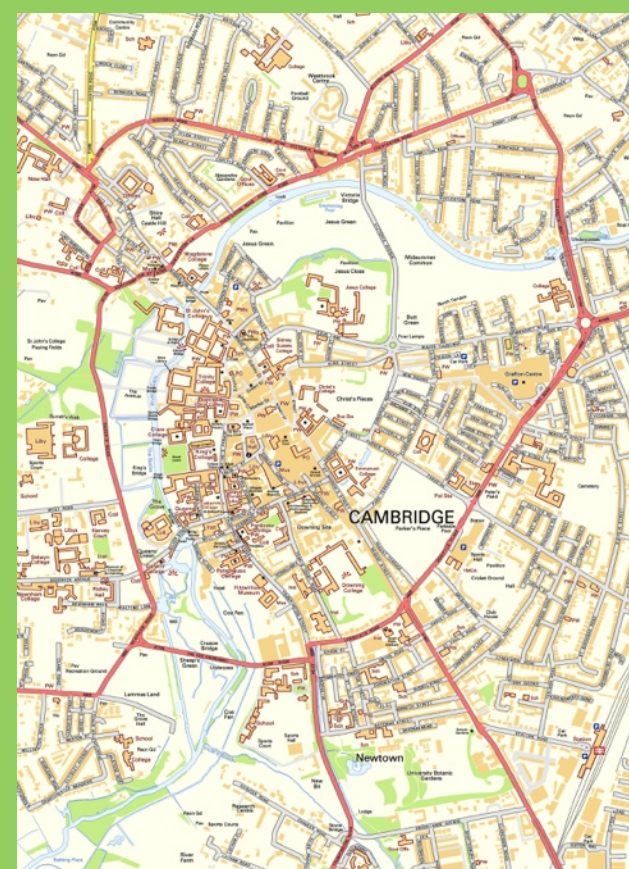
DEPARTMENT OF PATHOLOGY

The Department's research seeks to understand and so ultimately arrest and reverse disease processes. The Ajioka Lab has a long-standing interest in synthetic biology, biosensors and engineering of large DNAs. More information can be found at <http://www.path.cam.ac.uk> (Department) and <http://www.arsenicbiosensor.org> (biosensor project)

SAINSBURY LABORATORY

The Sainsbury Laboratory Cambridge University (SLCU) is a new research institute funded by the Gatsby Foundation. The aim of the Laboratory is to elucidate the regulatory systems underlying plant growth and development. SLCU is establishing a highly collaborative and interdisciplinary research environment to explore an integrated understanding of plant development that draws on molecular, cellular, whole plant, and population biology studies. More information can be found at <http://www.slcu.cam.ac.uk> (Institute) and Schornack Group (<http://www.slcu.cam.ac.uk/research/schornack-group>)

Credits: *Marchantia* images, Jim Haseloff & Nuri Purswani ; Plastid genome map, Ohyama *et al.* 2009; Cambridge panorama, Wikipedia.



**UNIVERSITY OF
CAMBRIDGE**