

Member News

Felix Franks Biotechnology Medal – 2019/2024

In the 2019 Newsletter, one of us (SH) as Chair of the Felix Franks Biotechnology Awards Committee described the inception and launch of the Felix Franks Biotechnology Medal. The award was set up by the RSC's Biotechnology Group to recognise outstanding achievement in the field of Chemical Biotechnology by Early Career Scientists, and in commemoration of Professor Felix Franks (1926-2016), distinguished former Chair of the Biotechnology Group, and is a result of the generosity of his family who have agreed to provide the medals.

Covid delayed the issue of a Newsletter, but here in the 2024 Newsletter we report the names of the winners of the six medals awarded in the period 2019 to 2024. Full details of the achievements of each is available on the Biotechnology Group's website, but here we provide a pen portrait of the winners in chronological order.

Winners

Felix Franks Biotechnology Medal – 2019 Winner

The recipient of the inaugural 2019 RSC Felix Franks Biotechnology Medal was **Professor Zhen Gu of the Department of Chemistry, Zhejiang University.**

Zhen Gu's key contribution is that he pioneered "programmed medications" that apply physiological signals-responsive materials/systems for precisely delivering therapeutics, especially for diabet

The award ceremony was broadcast live on Microsoft Teams and included an introduction by Prof Stephen Harding, Chair of the Award Committee, a short presentation by Prof Gu, and was concluded by Prof Harding, Prof Suzanne Franks and Professor Jianqing Gao, Vice Dean of the College of Pharmaceutical Sciences. You can watch the event here:

A recording of the lecture is available on

<https://www.youtube.com/watch?v=4s9C3IMiKlw&list=PLN1ANYZrIJ1zB5LkN8PHYL41kmTrE6JN&index=1>

Felix Franks Biotechnology Medal – 2020 Winner

The recipient of the 2021 RSC Felix Franks Biotechnology Medal was **Dr Jenny Zhang** of the

The recipient of the 2021 RSC Felix Franks Biotechnology Medal was **Dr Yuval Elani of the Chemical Engineering Department, Imperial College London.**

Yuval, a UKRI Future Leaders Fellow, has been a pioneer in the development and advancement of “bottom-up” synthetic biology, a step-change from traditional efforts, which have focused on the top-down modification of living cells. Yuval’s approach has been to develop a series of technologies that allow synthetic cells to be constructed from scratch using biomolecular building blocks.

Winner of the 2021 Felix Franks Biotechnology Medal: Dr Yuval Elani of the Chemical Engineering Department, Imperial College London Picture: Imperial College London
Yuval was presented with his award by Professor Steve Harding, Chair of the Award Committee after his lecture at the RSC MIBIO2022 meeting held at Downing College, Cambridge on 19 October 2022. [View details about MIBIO 2022.](#)

Felix Franks Biotechnology Medal – 2022 Winner

The recipient of the 2022 RSC Felix Franks Biotechnology Medal was **Dr Holly Reeve, of HydRegen Ltd., Oxford.**

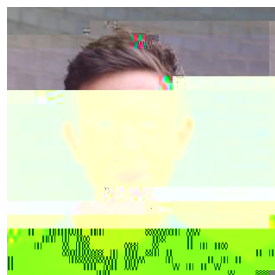
Holly received the award for her outstanding work in establishing a highly innovative approach – now patented – to decarbonising biocatalysis that addresses many of the requirements for net-zero manufacturing, taking it forward from proof-of-concept to commercialisation.

Holly was presented with the award by Professor Paul Race, Chair of the RSC Biotechnology Group Committee after her lecture *Biocatalytic hydrogenation: robust biotechnologies for sustainable chemical manufacturing*

Felix Franks Biotechnology Medal – 2024 Winner

The recipient of the 2024 Felix Franks Biotechnology Medal is **Dr Matthew Jenner, of the Department of Chemistry, University of Warwick.**

Matt Jenner receives the award for his internationally leading research into the discovery and biosynthesis of natural products through application of innovative mass spectrometry-based approaches.



Winner of the 2024 Felix Franks Biotechnology Medal: Dr Matthew Jenner of the Department of Chemistry, University of Warwick

Matt Jenner will be presented with the award at the RSC Directing Biosynthesis VII Meeting at the University of Birmingham 1-3 July 2024.

Prof Steve Harding, Chairman RSC Felix Franks Biotechnology Medal Committee

Dr Colin Bedford, Hon. Sec, Biotechnology Group

24 May 2024

Conference Reports

Advances in Isotope Ratio and related analyses for mapping migrations from Prehistory to the Viking Age
13 June 2022, London, United Kingdom

A one-day Discussion meeting was held at Burlington House on 13 June 2022 jointly by the RSC Biotechnology Group and the Society of Antiquaries. The meeting was held in honour of J.D. Bu'Lock (1928–1996), who was both founding Chairman of the RSC Biotechnology Group and a distinguished Viking Age antiquarian and Fellow of the Society of Antiquaries.

It was organised by Stephen Harding and Chas Jones (RSC) and Mark Pearce (Antiquaries Society) and was the first “hybrid” meeting run by the Group directly after the Covid pandemic with ~ 50 attendees.

Recent advances in analytical methods, in particular solid state mass spectroscopic analysis, have increased the potential of stable isotope ratio of biological (using principally carbon, oxygen, nitrogen and strontium isotopes) and non-biological (glass/metal) analysis, using principally strontium and lead isotopes. The meeting helped catalyse the establishment of international isotope ratio geo-databases of high resolution data (such as the lead isotope database GlobalID and similar to the highly successful protein data bank in molecular biology) which when sufficiently populated will ultimately allow the resolution of important questions regarding diet, historical movements, trade routes - and the provenance or origins of people and objects.

The meeting was opened by Prof Martin Millett (President of the Council, Society of Antiquaries) & Prof **Stephen Harding** (Royal Society of Chemistry) and was the first time the two Burlington House “Courtyard” Societies had held a joint meeting together. Both praised the work of Dr John Bu'Lock contrasting the contributions he had made to Chemical Biotechnology and Antiquaries (Viking Artefacts of NW England) before looking forward to the programme of presentations which followed.

In **Session I: Advances in Instrumentation & the need to create extensive isotope databases** (Chair: Mark Pearce) the presenters and their titles were: **Jane Evans** (British Geological Survey, Notts UK), *All models are wrong, but some are useful. Construction and use of spatially distributed multi isotope datasets*; **Till Sonnemann** (Otto-Friedrich-Universität Bamberg), *Isotopes, Isoscapes, and the Search for Geographic Origins: unrealized potential or unrealistic expectations?*; **Yiu-Kang K1c264d0EMCP MID BDC06457 5eWBT33312 Tf1 0 0 1 2018m01012915 r**

and **Stephen Merkel**

RSC Biotransformations II: From Science to Industrial Application

24th March 2023

RSC Burlington House, Piccadilly, London, UK.

This one-

10.00 **Opening Remarks, Paul Dalby**

Session I: *New advances in biocatalysis and biotransformation.* (Chair: **Paul Dalby**)

10.10 **Don Hilvert:** ETH Zurich

High-throughput engineering of biosynthetic assembly lines

10.45 **Ross Anderson:** University of Bristol

De novo proteins as blueprints for efficient enzymes and photocatalysts

11.20 **Sarah Barry:** Kings College London

New Chemistry Inspired by Natural Product Biosynthesis

11.55 **Liliana Oliveira:** Centre for Enzyme Innovation, University of Portsmouth

Investigating the emergence of poly(ethylene) terephthalate depolymerase activity through design and bioinformatics

12.15 **Sebastian Cosgrove:** Keele University

Adventures with oxidases and continuous flow biocatalysis

12.35 Lunch & Poster Session.

Session II: *Industrial and academic perspectives.* (Chair: **Paul Race**)

13.40 **Katja Zorn:** Astra Zeneca

Emerging biocatalytic transformations in early drug discovery

14.15 **Gideon Grogan:** University of York

Unspecific Peroxygenases: Expression, Application and Catalytic Promiscuity

14.50 **Helen Hailes:** UCL

Enzymatic single-step reactions and the construction of biocatalytic cascades

15.25 Tea, Posters & Networking.

Session III: Award Lecture (Chair: **Paul Race**)

16.00 **RSC 2022 Felix Franks Biotechnology Medal Lecture**

Holly Reeve: CEO HydRegen Ltd, Oxford, UK

Biocatalytic hydrogenation: robust biotechnologies for sustainable chemical manufacturing

16.50 **Closing Remarks - Paul Dalby**

Posters

A list of the titles of 16 poster presentations followed by 16 individual abstracts are available on the Group's website.

Committee Members