

EFB Bioengineering & Bioprocessing Section

Newsletter 2019 – Issue 1



Dear EBBS Member,

Hello, and welcome to our spring 2019 newsletter! Last year saw a lot of great biotechnology conferences, so in this issue we're looking back at a few of them with reports from our members. We'll also look forward to some of this year's exciting upcoming meetings, and remind you that it's never too early to start planning for the next EFB Congress!

We'd also like to extend a warm welcome to our new communications team volunteers, all of whom you can meet in the next issue. And remember, there's always room on the team for new members so if you would like to get involved as well then just [let us know](#). Any one-off contributions such as job adverts or a report on any aspect of our field would also be very welcome.

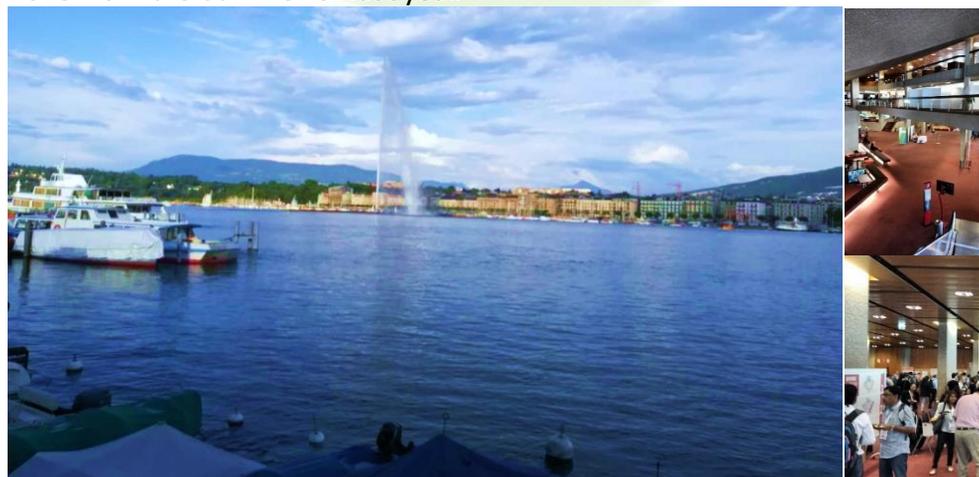
Enjoy the issue!

EBBS Comms Team , April 2019



Ian Eggington from the comms team attended the 4th Applied Synthetic Biology in Europe conference in October. We promise he's somewhere in this photo!

Michael Capeness from the University of Edinburgh gives his report on ECB 2018 from the summer of last year.



Section Co-chairs:



Dr. Louise Horsfall
[@lehorsfall](#)



Dr. Tim Overton
[@Overtonlab](#)

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Upcoming events



Designer Biology 2019

Newcastle University, UK; 31st July – 2nd August 2019



Registration is open now

Early bird rates available until the 30th of April

Students £200 --- Standard £250

Abstract submission available after completion of registration

A joint conference organised by The European Federation of Biotechnology Polymer Biotechnology Section and the Bioengineering and Bioprocessing Section, hosted by the Plant and Microbial Biology Group in the School of Natural and Environmental Sciences at Newcastle University 31st July – 2nd August 2019.

Building on the success of Designer Biology '17 held in Vienna, this meeting aims to bring together young and established scientists working in the field of bioengineering/synthetic biology. The scope is to discuss different applications, ranging from the engineering of organisms, proteins, and the engineering of functionalized bio-based and bio-inspired materials. While the specific aspects and scientific questions in these fields are different, the larger umbrella of methods used in these fields is similar. By bringing the different disciplines together in one meeting, we will strongly benefit the bioengineering community at large and give rise to synergies and opportunities for new collaborations.

Upcoming Conferences

PLANT BIOTECHNOLOGY: GREEN FOR GOOD V.

10 - 13 JUNE, 2019
OLOMOUC, CZECH REPUBLIC

Plant Biotechnology: Green for Good
10th-13th of June 2019
Olomouc, Czech Republic

Physiology of Yeasts and Filamentous Fungi
24th-27th June 2019
Milan, Italy

7th Conference on PHYSIOLOGY OF YEASTS & FILAMENTOUS FUNGI

24-27 JUNE 2019 | MILAN, ITALY



Maastricht • The Netherlands
28 June - 1 July 2020



ECB- European Congress on Biotechnology
28th June to 1st July 2020
Maastricht, Netherlands

Past events – ECB2018



Our man in the field
Michael
Capeness



Nestling on the shores of the crystal clear lake that bares its name and surrounded on three sides by mountains, Geneva was the beautiful setting for the European Congress of Biotechnology 2018. The bustling diplomatic capital of Switzerland and neighbour to the venerable CERN was the perfect place for the 40th anniversary congress to unfold, and that was before considering the glorious 30°C sunshine!

We were treated to a veritable tour de force of all things biotechnological, from Symposia covering the very small such as Nanomedicine and Novel Biotherapeutics, to the very large, including Molecular Farming and Biofortification of Crops, and everything in between.

While there were too many excellent talks to mention all of them here some of the highlights include Charlotte Green's presentation on ensuring genetic stability in culturing *E. coli*, and the talk by Marina Lotti on engineering Antarctic proteins was pretty cool to say the least!

Over the course of the congress we were introduced to the powerhouse that is Swiss Biotechnology, chaired by Laura Suter-Dick, highlighting how Switzerland is a thriving biotechnology hub in the heart of Europe and how it goes about applying Swiss values to the (bio)process.

The symposium on Nanobiotechnology was very well attended. It was chaired by Christophe Moreau and the Vice President of the AFoB, Tai Hyun Park, both of whom opened the session with keynote presentations telling us about nano-vesicles/discs and protein biosensors, respectively, with Tai Hyun Park showing us his lab's work towards a bioelectronic noses.

Throughout the congress, posters, flash presentations and workshops abounded; there was quite literally something of interest for everyone no matter their background or discipline. Sessions on "How not to write a Paper" and "How not to give a presentation" hosted by Jeff Cole and Patrycja Nowak-Sliwinska respectively, proved quite amusing as always!

Congratulations have to go to Dominik Jeschek, winner of the congress's Brian Clark award for Early Career Biotechnologists for his poster on phospholipid vesicles. Diana Santos and Dominik Kopp both picked up the Early Career prizes for best short talk and poster on biocatalysis or nanobiotechnology, sponsored by INOFEA. It seems if you want to win a prize, your name has to start with the letter 'D'.

To end the congress on a high, Kristala Jones Prather gave an inspirational plenary lecture on engineering metabolic pathway flux and not how everything goes to plan. With that, the congress was closed by EFB president Mathias Uhlen and we were warmly invited to Maastricht in 2020. We're already looking forward to it!

By Ian Eggington

October of 2018 saw the fourth successful Applied Synthetic Biology in Europe conference, held in Toulouse, France. It was hosted by EFB, and two subsections including Microbial Physiology and our very own Bioengineering and Bioprocessing section. This multidisciplinary meeting explored the wealth of synthetic biology research in Europe, covering a wide range of organisms and applications.

The speakers were divided into five sections: Genome Engineering and Synthetic Genomics; Bionanoscience and Bioengineering; Applied Protein Design and Evolution; Synthetic Pathways and Bio(Chemical) Manufacturing; and Synthetic Biology and Biotechnology Applications. This, in addition to the poster sessions and flash poster presentations, meant this was a wonderfully diverse and information-filled conference.

Each session had a wide range of speakers, from PhD students to professors. The Bionanoscience and bioengineering session had a key note talk from Dr Karen Polizzi from Imperial College London giving us an wonderful introduction to cell free synthesis in synthetic biology and the limitations of using such a system. Other key note speakers include Professor Lars Blank from RWTH Aachen University in Germany, who gave a very engaging talk about mismanaged plastics, the ways they can be up-cycled to reduce waste, and how his lab is working on achieving this, and Dr Pablo Nikel from the Novo Nordisk Foundation in Denmark, who walked us through his work with *Pseudomonas* adaptation for bio-based fluorination.

The talks, posters, and flash poster presentations made for a fun and informative conference, filled with cutting edge synthetic biology. This sense of fun and collaborative learning was epitomised by the gala dinner, full of hors d'oeuvre and French specialities, allowing us to indulge in the local cuisine while chatting and discussing all the presentations in more detail. There was also time to explore the vibrant city of Toulouse, which is now one of my favourite destinations in France.

If you were unable to attend the conference then a live tweeted rundown of each talk, and a handful of posters, can still be viewed on our twitter page [@EFB_EBBS](#) or by clicking [#ASBToulouse](#).

We also has a pre-conference short symposium for PhD students, including several oral presentations, posters, and workshops, one of which, Standards in Synthetic Biology, was chaired by our own Kostas Vavitsas. More details about this symposium can be found on PLOS synbio [here](#).

Do you want to get involved?

We welcome any and all contributions to the section. If you have an idea for a new meeting in an area of bioengineering or bioprocessing, or if you would like to assist in section activities, please contact the section co-chairs:

Louise Horsfall louise.Horsfall@ed.ac.uk Tim Overton t.w.overton@bham.ac.uk

Or if you have a meeting or conference you'd like us to promote or an article you'd like to write for the newsletter please contact

Matt Edmundson matt.edmundson@ed.ac.uk

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The Sound of Science

<p>Horoscopes are so hilariously generic. Go on, read mine, I'm a Capricorn.</p> 	<p>The planets align to block the rays from Saturn resulting in...</p> 	<p>continued failed ligations, expect some messy gels in your future.</p> 
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info@efb-ebbs.eu



Matt Edmundson,
Communications Officer
University of Edinburgh
matt.edmundson@ed.ac.uk
Twitter: [@Dr_Eddy_1](#)



Virginia Echavarrri-Bravo,
Communications Assistant
University of Edinburgh
virginia.echavarrri@ed.ac.uk



Ian Eggington,
Communications Assistant
University of Edinburgh
ian.eggington@ed.ac.uk
Twitter: [@IanEggington](#)



Konstantinos Vavitsas,
Communications Assistant
University of Queensland
k.vavitsas@uq.edu.au
Twitter: [@konvavitsas](#)

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