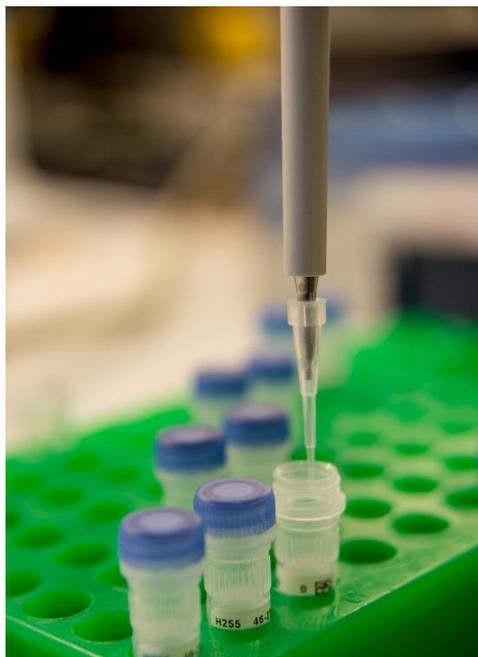




## Who Are We?

C1net is a BBSRC NIBB dedicated to the development and scalable production of C1 gas fermentation for the whole IB community. C1net provides a cross-sector forum with the goals to foster and enhance collaboration between industry and academia; develop skills and expertise; share best practice; define common research priorities; and target funding opportunities in C1 gas fermentation. The management board is currently 12 strong, with Professor Nigel Minton (University of Nottingham) as PI and Professor Davis Fell (Oxford Brookes) as Col.



## Progress

Membership currently stands at 406 with members from Europe, India, USA, Russia and Brazil and 368 followers on Twitter. A total of 12 POC awards of £50,000 have now been made.

## POC Awards 2017

The standard of this final round of POCs was very high, making decisions very difficult, but the management board members were delighted to see so much industrial collaboration. Congratulations go to the following 4 PIs:

**Kamelia Boodhoo** - Newcastle University

“Scalable engineering approaches for exploiting a novel biocomposite material applied to light-driven CO<sub>2</sub> absorption and utilization”  
7 month project

**Claudio Avignone-Rossa** - University of Surrey

“Electroautotrophic bacteria as chassis for electrofermentation of C1 gas”  
6 month project

**Martin Warren** - University of Kent

“Cofactor optimization for production of commodity chemical in *Acetobacterium woodii*”  
6 month project

**Ying Zhang** - University of Nottingham

“High value uses of waste methane from landfill and biogas methane from anaerobic digestion”  
7 month project



Jacque Minton Network Manager  
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[www.c1net.co.uk](http://www.c1net.co.uk)

## CALENDER (C1net Other)

### 28 September – 1 October 2017

C1net @ New Scientist live, Excel, London

[Read more](#)

### 9-11 October 2017

The European Forum for Industrial Biotechnology and the Bioeconomy  
The Square, Brussels

[Read more](#)

### 10-11 October 2017

BioProNET 4th Annual Science Meeting  
Warwick Slate Conference Centre

[Read more](#)

### 5-7 November 2017

C1net Conference 3, East Midlands Conference Centre, Nottingham

[Read more](#)

### 8-9 November 2017

Innovate 2017, NEC, Birmingham

[Read more](#)

### 27-28 November 2017

Synthetic Biology 2017  
Manchester Conference Centre

[Read more](#)

### 15 - 19 January 2018

Metabolic Modelling Workshop 4, Park Inn, Nottingham

[Read more](#)

## Horizon 2020 UK Information and Brokerage Events Oct - Nov 2017, various locations

Click on links below:

[Tue, 3 Oct, London](#)

[Tue, 10 Oct, London](#)

[Tue, 10 Oct, London](#)

[Wed, 11 Oct, Coventry](#)

[Tue, 31 Oct, London](#)

[Tue, 31 Oct, Birmingham](#)

[Tue, 7 Nov, Cardiff](#)

[Tue, 21 Nov, London](#)

[Wed, 22 Nov, London](#)



## C1net Metabolic Modelling Workshop 4 Nottingham, 15-19 January 2018

### About

Redirecting an organism's metabolism towards novel products raises a number of design issues and questions. Answering these questions needs tools that can compute and compare feasible routes through the cell's metabolic network, as well as methods for defining and representing the metabolic network in a way the tools can use. This is the domain of structural analysis of metabolism, and techniques such as elementary modes analysis and flux balance analysis. This combined theoretical and practical course will explain the theory and give hands-on experience of building metabolic network models and calculating feasible and optimal routes through them. It will be presented under the leadership of David Fell (OxBr). It covers the same area as the previous C1net Modelling Workshop 1 and 3, but is complementary to Workshop 2 on kinetic models.

### Details

**What:** Free participation, accommodation (for non-local delegates) and meals for C1NET/ other NIBB members.

**When:** Monday 15 Jan 2018, 13.30 - Friday 19 Jan 2018 13:30

**Where:** Park Inn, Nottingham, Notts, NG5 2BT

### Application

Attendance by invitation after submitting the application form. Application opens 1 Oct and closes 30 Nov 2017 (or earlier if full). Places are limited, so apply early to avoid disappointment. Successful applicants will be notified by 7 Dec 2017

FOR MORE DETAILS AND APPLICATION FORM  
<http://www.c1net.co.uk/Events-workshop-4.html>



## 2017 Summer Vacation Studentships

This year thanks to C1net funding, 5 undergraduate students were able to get a taste of life at the bench by winning summer vacation studentships.

These studentships were awarded to C1net members:

Jasper Taylor (PI Dr Claudio Avignone-Rossa, University of Surrey)  
Firdaus Bin Hamzah (PI Prof. Alex Conradie, University of Notts)  
Jia Xuan Leong (PI Professor Seth Davis, University of York)  
Alex Sowerby (PI Prof. Stephen Wilkinson, University of Chester)  
Laura Ballinger (PI Professor Nigel Minton, University of Notts)

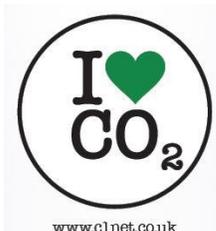
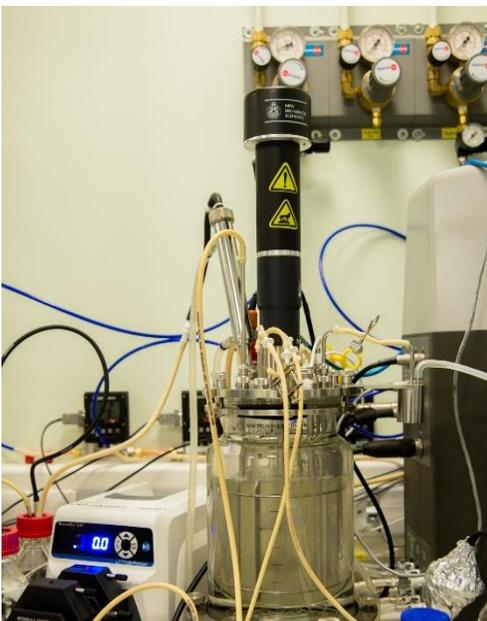
Second year Microbiology undergraduate student, Laura Ballinger (pictured left), talks about her experience.....

“I applied for the Studentship with BBSRC-NIBB C1net at SBRC-Nottingham to prepare me for my final year project: improve my organisational and planning skills, learn new techniques and develop realistic expectations of my results. The aim of my 10-week project was to design a recombinant *E. coli* strain, for DNA transfer into a *Clostridium* species. I worked under the guidance of a PhD student Beth Redfern and a lab technician Gina Bates, who were incredibly patient and great mentors.

I’m pleased to say that I’ve gotten what I wanted and much more. I’ve experienced lows of PCRs that refused to work (when it worked perfectly for someone else) and highs of finally seeing colonies on a plate from a troublesome transformation. What I didn’t expect was the invaluable insight into PhD work and life.

I had already been considering a PhD as my next step after my degree; it seems almost natural when you’re constantly surrounded by Doctors and PhD student. I knew that a PhD would be a (big) step up, but it’s hard to gauge the commitment and effort required when simply talking to PhD students. I was astonished by the hours they put in, both in and out of work, and I now have a new respect for their resilience and knowledge”.

**“I might still have a way to go on my journey into scientific research however, thanks to the amazing people and facilities at SBRC-Nottingham, I feel like I’m making good steps in the right direction”.**



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We wish all our young scientists good luck in their final year, and hope we have recruited a few more brain cells to our cause....

## Indian Oil and LanzaTech Sign a Statement of Intent to Construct World's First Refinery Off Gas-to-Ethanol Production Facility in India

Indian Oil Corporation will build the first refinery off gas to ethanol production facility utilizing the LanzaTech technology. The facility will produce approximately 40 million litres (11 million gallons) of ethanol from a variety of refinery gases. Just like in steel mills, refineries produce a variety of gases, which can be blended and utilized for the production of ethanol using gas fermentation.

This project will utilize a gas stream containing CO, H<sub>2</sub> and CO<sub>2</sub>. More than 50% of the C in the ethanol produced comes directly from the CO<sub>2</sub> in the feedstock.



[MORE HERE](#)



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### 2019 BIOCHEMICAL SOCIETY AWARDS

APPLY HERE -  
<http://www.biochemistry.org/Awards.aspx>

### Nominations are now open for the 2019 Biochemical Society Awards

The Biochemical Society Awards recognise early career researchers, scientists, educators and industry partners across 13 categories.

Nominate someone who deserves recognition for their work by 31 January 2018.

Further information is available [online](#).