



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 350 with members from Europe, India, USA, Russia and Brazil and 326 followers on Twitter. A total of 8 POC awards of £50,000 have now been made.

FINAL POC CALL OPENS 1 APRIL 2017– UP TO 4 X £50K CALL TITLE: ADVANCING THE EXPLOITATION OF C1 GAS FERMENTATION – CLOSES 30 JUNE 2017

Opportunity: We are seeking to fund the development of innovations that could facilitate new routes to high value chemicals through the engineering of a C1 chassis. Projects which could have application in future funding bids to the Global Challenge Research Fund (GCRF) will be welcomed.
APPLY HERE - <http://www.c1net.co.uk/Funding.html>

BIV CALL OPEN – NOW £10K

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C1net Conference 3 – Chemicals from C1 Gas Nottingham, 5-7 November 2017

Hosted by C1net this FREE, two-day conference will bring together academic and industrial partners to identify and address key challenges in the study of those organisms able to grow on C1 compounds and commercially exploit them as platforms for chemical manufacture.

What: Free participation and full board

When: Sunday 5 November - Tuesday 7 November 2017

**Where: East Midlands Conference Centre and Orchard Hotel,
The University of Nottingham, NG7 2RJ**

<http://www.c1net.co.uk/Events-conf-3.html>

MORE DETAILS SHORTLY



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CALENDER (C1net Other)

12 April 2017

Combined NIBB Industrial Biotechnology and Bioenergy Careers Fair, University of Sheffield <http://cbmnetnibb.group.shef.ac.uk/event/industrial-biotechnology-and-bioenergy-careers-fair/>

17 April 2017

Deadline public consultation period for [Green Paper](#) outlining its ambitions for the new Industrial Strategy. [Respond here](#)

25 April 2017

KTN event - Low Carbon Chemical Feedstocks for a Bioeconomy, Leeds [Read more](#)

26 April 2017

KTN event - Synthetic Biology for Bioprocessing of Next Generation Biologics, Manchester [Read More](#)

3 May 2017

KTN Briefing Day – European Funding for Biobased Industries, London [Read more](#)

22–23 May 2017

2nd International Advanced Biomanufacturing Conference. Royal Albert Hotel, Sheffield [Read more](#)

5-7 July 2017

9th European Symposium on Biopolymers (ESBP2017), Toulouse, France <https://esbp2017.sciencesconf.org/>

19–21 July 2017

7th International Conference on Biotechniques for Air Pollution Control and Bioenergy, La Coruna, Spain <http://bioengingroup.es/biotechniques2017/>

20-25 August 2017

International Biochar Conference, Italy [Read more](#)

9-11 October 2017

The European Forum for Industrial Biotechnology and the Bioeconomy The Square, Brussels www.efibforum.com

5 – 7 November 2017

C1net Conference 3, East Midlands Conference Centre, Nottingham <http://www.c1net.co.uk/Events-conf-3.html>



C1net Workshop 3 on Metabolic Modelling, Nottingham, 23rd - 27th January 2017 by C1net member and attendee Christian Gude

Scientists from all over the world, from Denmark to New Zealand, met in St James Hotel, Nottingham to gain insight in the building and use of structural metabolic models under the professional guidance of Prof. David Fell and Dr. Mark Poolman of Oxford Brookes University.

The computational representation of metabolic networks has been achieved through the program ScrumPy, a powerful tool in helping scientists represent and analyse complex metabolomes. With the aid of ScrumPy, scientists can import enzymatic databases of any organism and subsequently simulate changing growth conditions, gene knock-outs and projected yields of academically and industrially relevant metabolites.

The course taught the basics of the programming language Python, which is essential to manipulate data within ScrumPy. Interspersed by interesting talks on the mathematical background of network analysis, biotechnological applications of network analysis, flux balance analysis and how genome-scale models are built, we worked through practicals, which were designed to teach us not only how individual problems can be solved through ScrumPy, but also to show us its capabilities.

Most participants are not likely to be using ScrumPy in their research, but they might have to communicate efficiently with the bioinformaticians who do. The communication between the dry and the wet sides of the lab is greatly facilitated by workshops such as these. The workshop gave me not only insight in how structural models are made but also the ability to ask the right questions and an idea of what I can expect of our in-house bioinformatics experts. For example, I learned that I can anticipate very interesting findings towards interesting knock-out candidates in my system, but I can't expect kinetic enzymatic data to be taken into consideration in a mere structural model, which was one of the things I was previously unaware of. The workshop concluded with three field reports on successful examples of how ScrumPy was used and a stimulating QA session.

"I am looking forward to attending further meetings!"



Festival of Science and Technology Nottingham, 14 February 2017

“We love microbes” was the St Valentine’s day message that Louise Dynes, Jacque Minton and Tom Bailey took to ~50 school children and their carers at Wollaton Library, Nottingham on 14 February, as part of the “Festival of Science and Technology”. The outreach trio presented the “Game of Fuels” as C1net’s contribution to a week-long festival of events, bringing Science, Technology, Engineering and Maths to Nottingham during the half term holiday.

The Festival of Science and Curiosity is now in its third year and is delivered by STEM CITY, as a partnership of science organisations, educational institutions and Nottingham City Council. The belief is that Science is creative, and that it has to be part of our cultural lives – and not remote, hidden away, or only conducted in labs behind closed doors.

Though some of the concepts were challenging as the game was designed for an older age group, the children enjoyed playing the game and both adults and children reported learning something!!

“The game was good because it teaches you something and its fun”.

Science in the Park, 18 March 2017 Wollaton Park, Nottingham

March 10th-19th 2017 is British Science Week – a celebration of science, technology, engineering and maths across the UK, organised by the National British Science Association. In long standing tradition, the local branch of the BSA welcomed visitors to “Science in the Park” at Wollaton Park on 18 March. This annual event was free to enter and allowed the whole family to enjoy interactive activities and live demonstrations from all branches of Science. It is estimated that about 4000 attended the event, and at least 400 were engaged by the SBRC/C1net stand manned by C1net members Louise Dynes, Jacque Minton, Yanming Wang, Christopher Humphries and Pippa Strong.

The younger children enjoyed making model bacteria from plasticine and went away with a sticker “I ♥ Microbes” and the message that not all microbes are bad. Older children were engaged with our new table top poster and model bioreactor demonstration which was used to show how certain types of bacteria to help us make fuels from C1 gases. This was followed up with “making C1gases” using molemods” and worksheets to take home. The model anaerobic cabinet was also on display where children could wear a lab coat and goggles and try and isolate plasticine “bacteria” using forceps.



Professor Nigel Minton Calls for Gas Fermentation Scale-up on Radio and TV

A leading green energy scientist who uses bacteria to turn greenhouse gases into usable chemicals is calling for more investment from industry and government subsidies to scale up this newest of technologies.

Professor Nigel Minton from The University of Nottingham says there is significant potential for the industrial scaling up of the new process which uses 'gas-eating' bacteria to ferment polluting greenhouse gases from landfill and industry into useful products like biofuels and plastics.

A report, commissioned by Professor Minton's BBSRC-funded network of gas fermentation specialists C1net, says the UK should do more to increase the production of this new technology which could capture a large percentage of industrial waste gas from our factories and landfill.

[FULL PRESS RELEASE HERE](#)

[BBC WORLD SERVICE RADIO](#) (Broadcast 09 Feb 2017)

[BBC EAST MIDLANDS TODAY](#) (Broadcast 26 Feb 2017)



HELP SHAPE THE UK'S NEW INDUSTRIAL STRATEGY

Deadline 17 April 2017

Help shape the UK's new Industrial Strategy
On 23 January, the government published a [Green Paper](#)

outlining its ambitions for the new Industrial Strategy. This marked the beginning of a comprehensive public consultation period on the Industrial Strategy, and we would strongly encourage you to respond.

[RESPOND HERE](#)



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