



Who Are We?

C1net is the new 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 250 with members from Europe, India, USA and Russia and we have 200 followers on Twitter.

POC Awards 2015

Congratulations and £50,000 go to the following 5 POC teams:

Professor Richard Dinsdale, University of South Wales

Professor Nigel Minton, The University of Nottingham

Professor Frank Sargent, University of Dundee

Dr Klaus Winzer, The University of Nottingham

Professor Phillip Wright – University of Sheffield

SAVE THIS DATE

C1net Conference 2 24-26 July 2016, Nottingham

This two day conference will feature key speakers from academic and industry, showcase the work achieved by POC winners and provide a platform for networking.

FREE participation and full board for 2 days and 1 night. Attendance is by invitation after application. Limited spaces. Open to C1NET only.

FOR MORE DETAILS AND APPLICATION FORM

<http://www.c1net.co.uk/Events-conf-2.html>



Jacque Minton Network Manager
Centre for Biomolecular Sciences
University of Nottingham
University Park,
Nottingham, NG7 2RD
www.c1net.co.uk

CALENDER (C1net Other)

15 July – 23 October 2015

Newton Award Call

<http://www.c1net.co.uk/EventDocs/CONFAP-UK-Academies-Call-2015.pdf>

28 September – 2 October 2015

C1 net Workshop 2

<http://www.c1net.co.uk/Events-workshop-2.html>

20-21 October 2015

2nd Synthetic Biology Congress, London

21-22 October 2015

5th CO₂ Utilization Summit, Dresden

<http://www.wplgroup.com/aci/conferences/eu-cco5.asp>

23 October 2015

SYNPOL course on “Industrialization of Biotechnological Processes,” Murcia, Spain

www.synpol.org

27-29 October 2015

European Forum for IB, Brussels, Belgium

www.efibforum.com

28-30 October 2015

BioMicroWorld, Barcelona, Spain

<http://www.biomicroworld2015.org/>

9-10 November 2015

Innovate 2015, Old Billingsgate, London

<https://www.events.ukti.gov.uk/innovate-uk-2015/>

12 -13 November 2015

Metal Circuits, Synthetic Biology and C1 gases Scoping Workshop, Canterbury

c.harrison-560@kent.ac.uk

9-10 December 2015

[The 2015 European Biopolymer Summit](#)

London, UK

23-24 March 2016

Gasification 2016, Rotterdam, The Netherlands

<http://www.wplgroup.com/aci/event/gasification-conference/>

26-30 June 2016

Metabolic Engineering 11, Japan

<http://www.aiche.org/sbe/conferences/metabolic-engineering-conference/2016>



Canterbury Cathedral Lodge

Metal Circuits, Synthetic Biology and C1 gases Scoping Workshop – Canterbury, 12-13 November 2015

A scoping workshop jointly organised by the Metals in Biology and C1net. **FREE** participation and accommodation at Canterbury Cathedral Lodge <https://www.canterburycathedrallodge.org/>

SUMMARY

The cellular ‘circuitry’ that supplies metals to enzymes is a target for synthetic biology. Nearly a half of the enzymes in the protein databank contain metals at their active sites. Most of these enzymes will bind wrong metals more tightly than the ones needed for activity. Cells have ‘circuits’ — metallochaperones, metal-importers, -exporters, -sensors, storage proteins and cofactor-assembly pathways — to assist enzyme metalation. There is opportunity to manipulate these circuits to optimise the activities of enzymes in industrial biotechnology and to design novel bio-metallic cofactors. Key enzymes required for the utilisation of C1-gases have especially diverse (exotic) metal demands: The Ni-containing tetrapyrrole F430 in methyl CoM reductase, Cu or Fe in different methane monooxygenases, Co in vitamin B12 associated with various methyl donors enzymes, Fe and Ni hydrogenases, as just a few exemplars.

SCHEDULE

Day 1: 1pm; arrival, individual presentations and networking, dinner and overnight accommodation

Day 2: Round table discussions/ collaborations. Finish with lunch 1pm

REGISTRATION

If you would like to attend this **free** event please get in ASAP as there are a limited number of places available which include overnight accommodation: c.harrison-560@kent.ac.uk

WEBSITE http://prospect.rsc.org/MiB_NIBB/metals-synthetic-biology-c1-gas-scoping-workshop/

OUTREACH

Big Bang Near Me - 30 June 2015

“Big Bang Near Me” is all about inspiring young people from all backgrounds to study science, technology, engineering and maths. On 30th June, Outreach Officer and C1net member Louise Dynes ensured C1net had a presence at “The Big Bang East Midlands”, held at The Roundhouse, Derby and sponsored and supported by Derby City Council.

Louise headed a team on an Interactive Stand which combined all the STEM subjects. Among “Elephants Toothpaste” from Chemistry, “Balloon kebabs” from Physics and “Towers of Hanoi” from Maths, C1net demonstrated a model Anaerobic cabinet, showed how to make Biofuels with Molymods and encouraged pupils to make their own mini-Bioreactors at home.

About 2000 school children of all ages, plus members of the public, attended the event. The children seems excited and engaged by the activities on offer and several teachers enquired about the possibility of the team going into schools for a session.



Work Experience – 13-17 July 2015

From the 13th to 17th of July, the Synthetic Biology Research Centre Nottingham (SBRC) had the pleasure of offering insight into actual research on gas-fermenting bacteria to a sixth form student from the Friesland School in Derbyshire. During his Work Experience Placement, Rhys Denner has supported the Gaschem team in its efforts to study a candidate gene encoding for carbonic anhydrase in the industry-relevant bacterium *Clostridium autoethanogenum*. Under the expert supervision of C1net member Bart Pander, Rhys carried out laboratory experiments, to produce data which he subsequently analysed under the guidance of computer modeller Thomas Millat, also a C1net member. By the end of the week Rhys was able to conclude that the gene under investigation indeed encodes for an active carbonic anhydrase in *C. autoethanogenum*.

“At first I wanted to do something more real chemistry, now I might want to go for molecular biology or biochemistry” said Rhys.



“These few days
may have
changed my
life”



Mexico-UK Collaborative Industrial R&D Competition

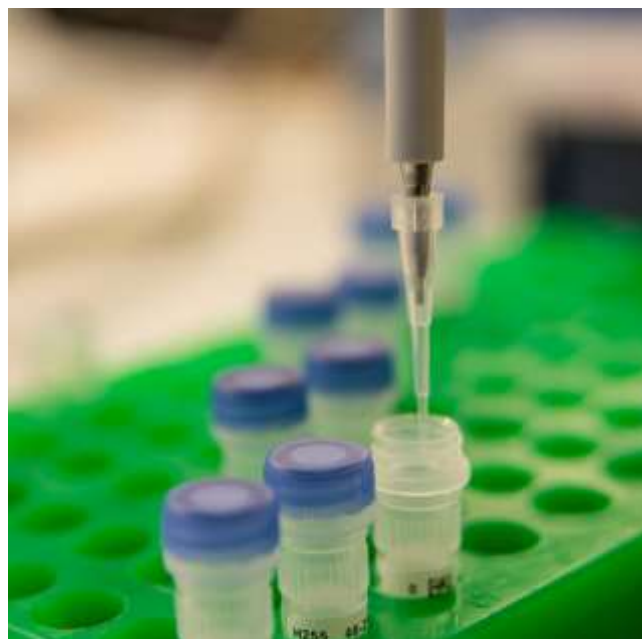
Deadline for Registration: noon 27 January 2016

Innovate UK and the National Council of Science and Technology of Mexico (CONACYT) are to invest up to £6 million in collaborative R & D projects to stimulate innovation across three sectors that underpin future Mexican growth:

AGROINDUSTRY ENERGY HEALTH

This investment from the UK has been made possible through the UK Department of Business, Innovation and Skills-managed Newton Fund: www.newtonfund.ac.uk. The aim of the competition is to bring together companies (small-to-medium-sized companies and/or larger, well established businesses), research organisations, academics and other collaborators from Mexico and the UK for the joint R&D of innovative products, processes or services that meet critical challenges existing within these three sectors.

[MORE DETAILS](#)



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Innovator of the Year

This competition recognises and rewards individuals and small teams who have harnessed the potential of their excellent research. There are three categories: Commercial, Social, Most promising and it is open to all BBSRC-funded scientists

Nomination deadline: 29 October 2015
Application deadline: 19 January 2016

MORE DETAILS
<http://ht.ly/RDvRU>