



Biotechnology and
Biological Sciences
Research Council



Engineering and
Physical Sciences
Research Council



Image of Lough Neagh shoreline in late August 2025 courtesy of **Dr Les Gornall**

EBNet Newsletter - August 2025

New

Stay connected to keep current with the latest in Environmental Biotechnology. Help us by keeping your contact details and preferences up-to-date - see links at the end of this Newsletter to update details or unsubscribe.

[Exploring Environmental Biotech as a field - video presentation](#)

A new video presents results from a small study by our Environmental Biotechnology and Social Sciences WG ([EBSS](#)), led by Prof Adrian Ely of the University of Sussex. The work explores the past, present and future of environmental biotechnology as a field, drawing on documentary evidence, bibliometric analysis and 12 interviews. The presentation is adapted from one at the UK-AsSIT [Reflexions](#) conference in Edinburgh in June 2025. A report on the work is available [here](#), with an Executive Summary. And watch this space for journal papers on the topic - currently in preparation and in review!

PFAS update and survey - seeking inputs

EBNet's PFAS WG has had a busy few months, with a [Position Statement](#), an [international workshop](#) co-sponsored by EBNet and [EBIC](#), presentations at [Aquaconsoil 2025](#) and the [European Wastewater Management conference](#), and an [animation](#) based on its POC project results - not to mention [responding](#) to a range of initiatives and news items. Now the WG is planning to update its Position Statement before the end of the year, and is seeking input. If you have comments on key issues or points to expand, please contact Dr Tao Lyu of Cranfield University, who coordinates the [PFAS WG](#).

BES webinars

The latest webinar from the Bioelectrochemical Systems WG is now available: Dr Sovik Das of IIT Delhi presents his group's work on [Microbial electrolysis cells for H₂ production](#). The next webinar in this series is on 28 October. The speaker will be Prof Claudio Avignone Rossa of the University of Surrey: watch out for more details and joining instructions [online](#), scan the QR code on the [WG webpage](#), or contact WG Lead Dr Sharon Velasquez Orta.

Waste feedstocks - advances and issues

The [Anaerobic Fermentation WG](#) has been commenting on new initiatives and publications, including reports from IEA Bioenergy's Task 43 on [waste feedstocks](#), and a CIWM Insights piece on [The Ick](#). The group also wants to draw attention to current international consultations on [regulation for nutrient management and recovery](#), a key function in waste-based biorefineries.

New publication - Food waste and Soft OR

A new paper applies systems thinking and Soft Operational Research methods to food waste reduction and recovery on a University campus. The paper is one output from a small project supported by EBNet's [AD WG](#) and many others, including staff and students at Royal Holloway, Manchester Metropolitan University and the University of West London; and Rokiah Yaman of [LEAP Micro-AD](#). The work is also a great example of EBNet's Theme 3 on interaction of technological with societal and environmental factors, and of the tools and approaches needed to address some key Sustainable Development Goals. To access the paper, see link in Publications section below. A short report on the EBNet project is available [here](#).

Microbes Audiobook

This month's recommendations from our **Green Stories: Microbes to the Rescue** audiobook and ebook are highlighted [here](#), two with a futuristic theme and one maybe for kids...? Let us know what you think!

'I am an Environmental Biotechnologist...'

I am an Environmental Biotechnologist because I care about a liveable world for our children and grandchildren.

Amin Zarei,
University of Surrey

I am a researcher in Organic chemistry, working on a greener approach of biomolecules derivative synthesis.

Rituparna Saha,
University of Hull

I study environmental engineering, and I chose reduction of anti-microbial resistance in river catchments as my research topic.

Xiaoqi Yu,
Newcastle University

We invited our Early Career Researchers to write a sentence on the theme 'I am an Environmental Biotechnologist...'. Some examples of their responses are shown here and in other Newsletters. (NB EBNNet has now been running for 6 years - so some of them are no longer ECRs, but senior academics and industrialists!).

Spotlight On...

*Do you have news to share with other members?
Email us details if you want a shout-out in next month's newsletter. We can also post News items on the website.*



Wastewater biosolids - the next big issue?

As if the UK water industry needed another major headache, there are clear signs that disposal of wastewater biosolids (and indeed other types of digestate) is set to hit the headlines. This is not a new problem: doubts have long been raised on whether land application regulations are fit for purpose, but the questions are now gaining urgency due to concern over emerging pollutants not considered in previous guidance. The issue is not going to disappear, and EBNNet will continue to comment directly and through its WG, alongside other professional and scientific bodies.

Lough Neagh algal blooms

A piece in the CIWEM Newsletter looks at how blue-green algae are disrupting ecosystems and threatening public health in the UK's largest freshwater body. Dr Les Gornall, a keen supporter of EBNNet and an expert in Anaerobic Digestion and animal slurries, has also been campaigning on this issue for some time - most recently a few days ago on BBC Radio Ulster; and see our Header image above. What solutions does Environmental Biotech have to offer - or

as so often, is the best answer prevention at source?

GCSB visits

The Global Center for Sustainable Bioproducts ([GCSB](#)) aims to develop environmentally and economically sustainable bio-derived composites and plastics from waste biomass. It is one of 6 Global Bioeconomy Centers that will run for 5 years, funded by the [NSF](#), UKRI and others. The Center includes teams from the US, Canada, UK, Finland, Japan and Korea. The UK Lead is EBNet Co-I [Prof Jhuma Sadhukhan](#), with primary responsibility for life cycle analysis (LCA) and techno-economic assessment (TEA). As part of her new role as GCSB UK Manager, former Network Co-manager [Angela Bywater](#) recently visited the University of Alberta to meet the groups and tour the labs. See [here](#) for more about the teams involved.

BiofuelAi shortlisted

BiofuelAi, a start-up from the University of Surrey, is one of ten finalists shortlisted for the £1 million Manchester Prize. The Prize, funded by the Department for Science and Technology (DSIT), aims to reward UK-led artificial intelligence innovations such as those within the fields of energy, environment, infrastructure and net zero. The start-up is working with UK biogas companies to optimise anaerobic digester operations using machine learning.

Efficient CO2 recovery with microbubbles

EBNet received a request to help publicise a survey on microbubbles for CO2 recovery. A team at the University of Sheffield is seeking feedback on potential applications in the Anaerobic Digestion sector and elsewhere. The background to the survey can be found [here](#). EBNet has a longstanding interest in microbubbles: they play a starring role in our [animation](#), and also featured at the joint EBNet/Carbon Recycling Network workshop on *Gas Fermentation Technologies* - see [here](#) for reports. Help to support work in this area by [completing the survey](#) before 30 September, and circulating details to others.

RSC Sustainable Laboratory Practice survey

The Royal Society of Chemistry ([RSC](#)) wished to talk to lab users and managers to learn more about current sustainability practices. This may include 30–40 minute interviews to explore the topic and get feedback on ideas that are under development. To find out more see [here](#). More people are turning to EBNet for speedy access to events, reports, jobs, PhD/Postdoc positions etc.

Join us on [LinkedIn](#) or [X](#) (formerly Twitter)



Forthcoming Events

Find selected upcoming events below.

Find more at: [KTN events](#)

Online events

NEW [Amazing Science- Unlocking Methane Removal](#) - 17 Sept 2025 14-15:00 UK

NEW [When Experiments don't go as planned](#) - 6 Oct 2025 16-17:00 UK

In person events

NEW [Biofilm Alliance Conference](#) - 21 Oct 2025, Birmingham

NEW [Amazing Science- Unlocking Methane Removal](#) - 24-27 May 2026 Bologna, Italy.

Abstracts 31 Oct 2026

[IWA Membrane Technology](#) - 13-18 Sept 2025, Daegu, South Korea

[GapSummit 2025](#) - 15-17 Sept 2025, University of Cambridge

[Contamination & Land Remediation Expo](#) - 17-18 Sept 2025, NEC Birmingham

[Resource & Waste Management Expo 2025](#) - 17-18 Sept 2025, Birmingham

[Euro-MIC Closing workshop](#) - 17-19 Sept, Horsens, Denmark and online.

[IWA 1st Photogranules](#) - 17-19 Sept 2025, Delft, Netherlands

[CIWEM Early Career Conference 2025](#) - 23 Sept 2025, London

[ADBA Northern Ireland Conference](#) - 23 Sept 2025, Belfast

[RETASTE](#) - 24-27 Sept, Athens, Greece

[4th BBNet conference](#) - 15-17 Oct 2025, Sheffield

[IWA Sludge Management 19](#) - 21-24 Oct 2025, Kyoto, Japan

[ISWA 2025 Re-imagine Waste](#) - 27-29 Oct 2025, Buenos Aires, Argentina

[ICGEB Conference - Bacterial communication](#) - 28-30 Oct 2025, Trieste, Italy

[Ecomondo Green Technology](#) - 4-7 Nov 2025, Rimini, Italy

Funding

Selected funding opportunities for academia and industry are highlighted below.

Find more at: [UKRI funding](#)



NEW [Engineering Biology ICURe Discover programme](#) - 23 Sept 2025

NEW [Unlocking the full potential of nature-based engineering](#) - 23 Oct 2025

[Knowledge Transfer Partnership 2025-6](#) (Round 3) - 17 Sept 2025

[CBE JU 2023 calls](#) - 18 Sept 2025

[BBSRC Standard research grant 2025 round 3](#) - 24 Sept 2025

[BBSRC New Investigator award 2025 round 3](#) - 24 Sept 2025

[JSPS/Royal Society Bilateral projects](#) - 25 Sept 2025

[Elemental Hub Business Interaction Vouchers](#) Round 1 - 30 Oct 2025 (or when all funding allocated)

[Pushing the Frontiers of Environmental Research](#) - 21 Jan 2026

[BBNet Collaborate and Innovate](#) - open

[EPSRC Programme grant full proposal](#) - open

[EPSRC Network Grant](#) - open

[Daphne Jackson Fellowship](#) - open

[BBSRC Brazil pump-priming](#) - open

Travel and related awards

[BBSRC International Travel Award](#) - 30 Sept 2025

[ECR Travel Award - Processes](#) - 31 Oct 2024

[EPSRC Overseas Travel Grant](#) - open

[NBIC Flexible Talent Mobility Account](#) - until 2027



Jobs, Training, Awards & PhDs

We still have funding available for Share-with-a-peer (SWAP) exchanges - for details see EBNet website

Jobs (see also [FindAPostDoc](#) & [Jobs.ac.uk](#))

NEW [Research Associate in Bioprocess Modelling and Optimisation](#) - 5 Oct 2025, University of Manchester

NEW [Research Associate in Microbiome Ecology](#) - 11 Oct 2025, University of Manchester

NEW [Professor/Assoc Prof/Senior Lecturer/Lecturer in Engineering](#) - 14 Oct 2025, University of Exeter

NEW [Assoc Prof/Asst Prof Lecturer in Biological and Biotech Wastewater Treatment](#) - 15 Oct 2025, Technical University of Denmark

PhDs (see also [FindaPhD](#) and similar sites)

[Resource at source: Bio-based platforms for transitioning to a Net Zero Chemical Industry](#) -

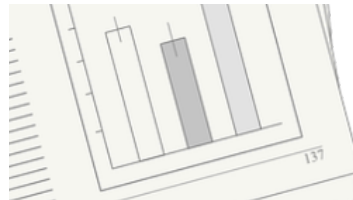
Training

[Optimising AS Plants](#) - 16 Sept 2025, Aquaenviro online

[Optimising AD of sewage sludge](#) - 24 Sept 2025, Aquaenviro online

Publications

Have you seen something, or published anything recently, that you would like us to highlight?



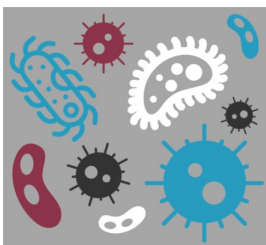
A critical systems thinking methodology to explore circularity of food waste in a university campus. Córdoba-Pachón, J.R., Paucar-Caceres, A., Burrowes-Cromwell, T., Bywater, A., Shah, R., Walker, M. and Behzadian, K., 2025. Journal of the Operational Research Society, pp.1-20. [See Food Waste item in New].

Bioelectrosynthesis of polyhydroxybutyrate and surfactants in microbial fuel cells: a preliminary study. Nastro, R.A., Kuppam, C., Toscanesi, M., Trifuoggi, M., Pietrelli, A., Pasquale, V. and Avignone-Rossa, C., 2025. Frontiers in microbiology, 16, p.1372302. p.2500100. [Our speaker for BES webinar Oct 2025]

Metagenomic analysis of heavy water-adapted bacterial communities. Rivas-Santisteban, J., Martínez, J.M., Escudero, C., Hernández-Antolín, R., Cid-Barrio, L., Ellis, G.J., Domingo, E., Sánchez, C., Sobrino, F. and Amils, R., 2025. Microbial Genomics, 11(5), p.001414. [See 'Still here?' below]

Still here?

At the extremes



Scientists have reported bacteria capable of proliferating in very pure heavy water (>99% D₂O), in sealed plastic containers for over 30 years, with no external nutrient source. Heavy water is severely detrimental to key metabolic functions, and there are no natural environments in which such high concentrations can be found.

EBNet loves learning about extremophiles, if only because they teach us humility with respect to the limits of our current understanding of individual organisms; never mind that of the complex microbial communities which we harness for environmental protection and remediation. Our congratulations to Rivas-Santisteban et al. (2025) and to the microbes for their achievements.

Where else to look?

There is a growing range of UK Networks and Hubs related to Environmental Biotechnology. Our sister-NIBB, [BBNet](#), runs to January 2026. [NBIC](#) continues to support research into biofilms. The 6 [Engineering Biology Mission Hubs](#) include the [Environmental Biotechnology Innovation Centre](#), which builds on and expands some of the themes in EBNet. Two more Mission Hubs have an environmental theme: [Elemental](#) and [P3EB](#), and the new TERC **[Better Water For All](#)** Network is launching shortly. Sign up for EBIC's Newsletter [here](#).



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