



Biotechnology and
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Engineering and
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Photo of University of York laboratories courtesy of **Dr Matthew Reilly**

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.

[TERC+ Water Network Launches](#)

The EPSRC-funded *Better Water for All* Network+, which takes forward some key areas explored

in EBNNet, was officially launched on 3 Oct 2025. The Network+ is one of six supported by [Tomorrow's Engineering Research Challenges](#), and is led by [Dr Bing Guo](#) of the University of Surrey. Its goal is to develop comprehensive and effective frameworks to reduce risks from emerging chemical and biological micropollutants in water and wastewater systems. EBNNet Co-I and [N2O WG](#) Lead Prof Tom Curtis and [Water Biofilms](#) WG Lead Dr Francis Hassard are co-investigators, and we have just heard the [PFAS WG](#) will continue in the new Network+. Join the new Network+ [here](#) to collaborate and shape the future of water research and innovation!

Managing the microbiome

[Bioinformatics WG](#) co-Lead Prof James Chong is a co-author on a [perspective paper](#) coordinated by [Dr Miao Guo](#), with an impressive string of international authors. The paper aims to examine so-called 'lock-in' – historical, technological and microbiological – in today's WWTPs, and to propose more coherent integrated approaches. The ideas put forward may ruffle a few feathers: but EBNNet hosts a range of views, and our role is to promote debate on the most effective strategies, even when they may be disruptive.

Meanwhile [Dr Yumechris Amekan](#) and colleagues at York have published a [paper assessing powerful new tools](#) for investigating complex microbiomes: the work builds on ideas he first presented way back at the EBNNet's 2020 ECR conference. For details of these two papers see Publications section below.

BES webinars

The most recent webinar from our Bioelectrochemical Systems WG is now available: Dr Cristina Cordas from NOVA School of Science and Technology in Portugal presents her work on [Interfacial Bioelectrochemistry: Enzymatic NO and CO₂ reduction and H₂ evolution](#).

The next webinar, on 28 October, will feature Prof Claudio Avignone Rossa of the University of Surrey talking about *Electroactivity of microbial communities in MFC for bioremediation*: for more details and joining instructions scan the QR code on the [WG webpage](#), or contact WG Lead Dr Sharon Velasquez Orta.

AF or AD? Feedstock may matter

The [Anaerobic Fermentation WG](#) is preparing for BBNNet's [4th Annual Conference](#) on 15-16 Oct 2025, where co-Lead Dr Yue Zhang will present a brief summary of findings from the joint EBNNet/BBNNet workshop earlier this year. Meanwhile group members have been assessing recent studies of some potential feedstocks, including an [UKWIR report on water treatment sludges](#) and a [review of tannery wastes](#). Both materials present challenges, but may also have characteristics that make them especially suited to anaerobic fermentation. To find out more about the approach watch our short [AF animation](#), and see Publications (below) for details of the tannery paper co-authored by WG co-Lead Dr Luca Alibardi.

Prof Pathik Pathak

EBNNet notes with sorrow the recent death of Prof Pathik Pathak of the University of Southampton.

Pathak was one of our original core members, a generous contributor of ideas and a champion of social entrepreneurship, equity and justice. Our condolences to family and colleagues.

Microbes Audiobook

October's recommendations from our **Green Stories: Microbes to the Rescue** audiobook and ebook are highlighted [here](#). This month's authors are both from Australia, but with rather different stories to tell. Tell us what you think!

'I am an Environmental Biotechnologist...'

I am an Environmental Biotechnologist because I am fascinated by the phylogenetic and functional diversity of environmental microorganisms

Lauren Messer,
University of Stirling

My research focuses on developing proof-of-concept bioelectrochemical systems as potential sustainable treatment processes for industrial wastewater.

Radwa Ibrahim,
University of Westminster

I am an Environmental Biotechnologist because I believe in the power of microbes and genetics to develop environmentally friendly products.

Mingaile Jackson,
Northumbria 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 previous Newsletters. (NB EBNet 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.*



BBSRC Initiatives on Eng Biol and Microbiome Networking

BBSRC has announced its *Engineering Biology Scale-up Infrastructure - Preliminary Activity* to scope and develop a national infrastructure plan. A [webinar](#) on 16 Oct 2025 will be followed by an in-person workshop in November for selected community members to appoint a project team.

Meanwhile the BBSRC-funded [Microbiome-Net](#) officially launched on 15 Sept 2025 and is inviting [expressions of interest](#) from those wanting to share ideas and get involved.

CIWM - Let's Not Waste the Next Four Years

The Chartered Institution of Wastes Management ([CIWM](#)) has launched a [Report](#) with 10 key recommendations for the sector. The report is based on an [independent review](#) commissioned by CIWM's Policy & Innovation Forum, looking at the UK's policy landscape from a waste and

resources viewpoint. While the report covers the wider sector, its principles are central to all areas effective waste and resource management, including those in EBNet's remit. Recommendations broadening the focus of [Skills England](#) to incentivise green skills initiatives. The sector also needs to work more closely with regulators, as highlighted in a [Review of Defra's Regulatory Landscape](#).

EBNet welcomes the report, and hopes for further opportunities to develop proposals and recommendations on bioprocessing and organic wastes.

More PFAS developments

The Contaminated Land: Applications in Real Environments group (CL:AIRE) has now set up a [PFAS Webpage](#) compiling key information from around the world. Non-commercial news items and publications can be submitted to the [Helpdesk](#). CL:AIRE was one of EBNet's original supporters and we are delighted to publicise this new resource, which is just one of many excellent initiatives from this group. And don't forget EBNet's [PFAS WG](#) is seeking comment on its current Position Statement. Please contact WG Lead [Dr Tao Lyu](#) of Cranfield University to have your say.

EBIC Hub - Barcodes podcast and New Scientist Live

The next episode in [EBIC's podcast series](#) features a discussion of pioneering work in Newcastle University at the intersection of computer science and engineering biology, with a focus on innovative use of barcodes in engineered microbes. EBIC team members will also be at the [New Scientist Live](#) event in London on 18-19 Oct 2025 - meet them at Stand N27 to learn more about current research and activities.

BBIA initiatives

A webinar hosted by the Bio-Based and Biodegradable Industries Association ([BBIA](#)) features EBNet's Prof Jhuma Sadhukhan speaking on Bioplastics from Biomass and the Global Center for Sustainable Bioproducts ([GCSB](#)), for which she is the UK Lead. BBIA has kindly made this available to EBNet members. Meanwhile it is also hosting 3 free online sessions introducing key concepts in Bio-based and Biodegradable Materials, on [Demystifying the Bioeconomy: Key Terms and Concepts](#), [From Biomass to Biorefinery: Creating a Truly Circular Economy](#) and [Bio-Based Breakthroughs: Emerging Markets and Materials](#). All sessions include time for discussion, helping participants apply these concepts in their own work.

Microbubbles survey - reminder

Thanks to all those who completed the University of Sheffield's [survey](#) on applications of microbubbles for CO2 recovery. Responses can still be submitted until end October 2025. And if you wonder what the fuss is about, don't forget EBNet's microbubble [animation](#).

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 [BBSRC Engineering Biology Scale-up Infrastructure - Preliminary Activity](#) - 16 Oct 2025 15-17:00 UK

NEW [NBIC Women in Science: Building Careers, Shaping Futures](#) - 25 Nov 2025 14-15:30 UK

In person events

NEW [European Biosolids & Bioresources](#) - 11-22 Nov 2025, Manchester.

NEW [EUBCE 2026](#) - 19-22 May 2026, The Hague, Netherlands. **Abstracts 31 Oct 2025**

NEW [IWA 11th Sewer Processes and Networks](#) - 19-21 May 2026, Trondheim, Norway. **Abstracts 31 Nov 2025**

NEW [IWA 14th Micropoll & EcoHazard](#) - 31 May to 4 June 2026, Toronto, Canada. **Abstracts 15 Dec 2025**

NEW [IWA 19th World Conference on AD](#) - 9-13 June 2026, Valencia, Spain. **Abstracts 1 Dec 2025**

NEW [Water in Industry 2026](#) - 27 June to 3 July 2026, Delft, Netherlands. **Abstracts 15 Dec 2025**

NEW [WasteEng 2026](#) - 7-10 July 2026, A Coruña, Spain. **Abstracts 18 Oct 2025**

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

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

[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

[Amazing Science- Unlocking Methane Removal](#) - 24-27 May 2026 Bologna, Italy. **Abstracts 31 Oct 2025**

Funding

Selected funding opportunities for academia and industry are highlighted below.

Find more at: [UKRI funding](#)



- *NEW* [Royal Society Short Industry Fellowship](#) - 23 Oct 2025
- *NEW* [Royal Society Dorothy Hodgkin Fellowship](#) - 28 Oct 2025
- *NEW* [Leverhulme Trust Research Fellowship](#) - 6 Nov 2025
- *NEW* [Royal Society Leverhulme Trust Senior Research Fellowship](#) - 12 Nov 2025
- *NEW* [Royal Society Career Development Fellowship](#) - 19 Nov 2025

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

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

NEW [Elemental Hub Critical Minerals Travel/Exchange Grants](#) - 15 Oct 2025

NEW [JSPS Summer Programme Fellowship 2026](#) - 22 Oct 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 Fellow - Quantitative Ecology](#) - 15 Oct 2025, University College London

NEW [Lecturer in Public Health and Global Public Health](#) (fixed term) - 20 Oct 2025, Canterbury Christ Church University

NEW [Research Fellow in Synthetic Biology](#) - 27 Oct 2025, University College London

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

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

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

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

NEW [CDT in Water Infrastructure and Resilience \(WIRe\)](#) - start 2025, Cranfield/Newcastle/Sheffield

NEW [CDT in Resilient Chemistry - 4 themes](#) - start 2025/2026, Universities for Nottingham

NEW [Optimising sustainable bioplastic supply chains: modelling nanocellulose production in the UK](#) - 19 Dec 2025, University of Manchester

[Resource at source: Bio-based platforms for transitioning to a Net Zero Chemical Industry](#) - 18 Dec, University of Manchester

Training

NEW [Reducing Risk in Process Scale-up with Modelling and Simulation](#) - 15 Oct 2025 14:00 UK, online

NEW [Pilot Plant Protocol and Scale-Up](#) - 18 Nov 2025 13:00 UK, online (*free to IChemE members*)

NEW BBIA Series on key concepts:

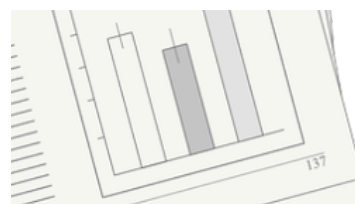
[Demystifying the Bioeconomy: Key Terms and Concepts](#) - 28 Oct 2025 12-13:00 UK

[From Biomass to Biorefinery: Creating a Truly Circular Economy](#) - 31 Oct 2025 12 13:00 UK

[Bio-Based Breakthroughs: Emerging Markets and Materials](#) - 5 Nov 2025 12-13:00 UK

Publications

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



[Escaping Historical Lock-in – Redesigning Wastewater Treatment Plants and Their Microbiomes for the 21st Century](#). Verstraete, W., Strubbe, L., Pikaar, I., Vinestock, T.W., Lee, P.H., Matassa, S., **Chong, J.**, Zhou, J., Daigger, G.T. and **Guo, M.**, 2025. *Environmental science & technology*, 59(29), pp.14862-14869.

[Innovative chemical biology tools for monitoring activity in complex microbiomes](#). Amekan, Y., Redeker, K.R. and **Chong, J.P.**, 2025. *Current Research in Biotechnology*, p.100334.

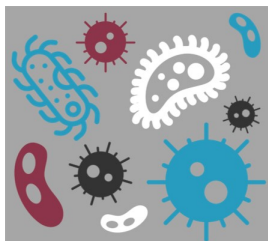
[Anaerobic digestion of tannery sludge and tannery waste: a systematic review](#). Bresolin, B.M., Valentino, F., Gottardo, M., Tuci, G.A. and **Alibardi, L.**, 2025. *Environmental Technology Reviews*, 14(1), pp.839-862.

[Microbial resuscitation and growth rates in deep permafrost: Lipid stable isotope probing results from the permafrost research tunnel in Fox, Alaska](#). Caro, T.A., McFarlin,

J.M., Maloney, A.E., Jech, S.D., Barker, A.J., Douglas, T.A., Barbato, R.A. and Kopf, S.H., 2025. Journal of Geophysical Research: Biogeosciences, 130(9), p.e2025JG008759.

Still here?

Frozen friends



A recent paper (above) looked at revival rates of microorganisms from ancient permafrost, and related rates of growth to changes in microbial community structure. Re-awakening was initially slow, but within 6 months a dramatically different community emerged, distinct from both the ancient and overlying surface communities.

The researchers also noted that subsurface microbes preferentially produce glycolipids over phospholipids, suggesting a role in cryotolerance. Congratulations to Caro 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. The [Better Water for All](#) Network+ has now launched. Our sister-NIBBs [BBNet](#) and [HVB](#) run to end 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 EBNet's themes. Two more Mission Hubs, [Elemental](#) and [P3EB](#), have an environmental focus. Sign up for EBIC's Newsletter [here](#).



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