Dr Gus Cameron
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Summary

Biography

My main job is to make sure our undergraduates learn science, real science. This means that we have to convey clear and high expectations and our students need to take ownership of their studies. To support these aspiraitons I developed (and still direct) eBiolabs, a Dynamic Laboratory Manual that allows us to make full use of the teaching laboratories in a way that aligns with our aspirations for our students in a research-intensive department.

I trained as an industrial biologist and biochemical engineer and spent a year working on large-scale fermentation systems at PHLS CAMR at Porton Down before, like many others, downsizing to focus on the molecular stuff: protein characterisation, enzymology and reaction mechanisms. Time spent in Iris Lindberg's lab when it was in New Orleans (pre-Katrina) allowed me to expand into mammalian cell work before moving to Bristol to help manage a large project funded by Bill Gates and the Medicines for Malaria venture, where we used structure-based drug discovery techniques - "rational design" – to develop novel anti-malarials.

Pre-steady state kinetics with the remarkable Professor Tony Clarke helped to generate data which, together with non-linear modelling and Monte Carlo simulations, helped determine kinetic mechanisms of various protein-based systems.

Most of these activities are notoriously unintuitive and in my teaching I've had to think terrifically hard about how to engage students, this training has had its own rewards as I now apply these findings within all my work with great success.

Dr Cameron is a Fellow of the Royal Society of Biology, a Senior Fellow of the Higher Education Academy and winner of multiple awards for teaching.

Teaching

Biochemistry: Cellular Composition

Biochemistry: Cellular Processes

Biological Chemistry 1A

Molecular Cell Biology

Recombinant DNA Technology

Biomedical Research, Employability and Enterprise Skills

Health Sciences: Biochemistry - Bristol Dental School

Memberships

Organisations

School of Biochemistry

School of Biochemistry staff

- Biochemistry academic staff

Recent publications

- Watkins, DW, Jenkins, JMX, Grayson, KJ, Wood, N, Steventon, JW, Le Vay, K, Goodwin, MI, Mullen, AS, Bailey, HJ, Crump, MP, MacMillan, F, Mulholland, AJ, Cameron, G, Sessions, RB, Mann, S & Anderson, JLR, 2017, 'Construction and in vivo assembly of a catalytically proficient and hyperthermostable de novo enzyme'. *Nature Communications*, vol 8.
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