

## BioProNET member profile



### Michael Plevin University of York

*Michael is a Lecturer in molecular biophysics in the Department of Biology at the University of York. He joined BioProNET in November 2015.*

#### Why did you decide to join BioProNET?

One of my colleagues in the Chemistry Department at York was awarded Proof of Concept (PoC) funding from BioProNET and told me about the funding opportunities available.

#### How has BioProNET facilitated your research?

In February 2016, I was awarded a Business Interaction Voucher (BIV) from BioProNET for a collaborative project working with Oxford Nanopore Technologies (ONT), a biotechnology company that is the world leader in hand-held nanopore-based sequencing devices.

Our collaborative work provided the first evidence that a specific family of archaeal DNA motor protein enzymes can function as the motor protein component of a hand-held nanopore-based DNA sequencer. **Critically, the BIV allowed us to generate the important preliminary data that we needed for subsequent funding applications.**

#### What happened next?

The outputs from the BIV enabled us to successfully apply for a BBSRC-funded iCASE PhD studentship. The student will spend the next 4 years working with ONT to develop tools for assaying helicase activity at the single molecule level.

Moreover, we were then awarded PoC funding from BioProNET to investigate if a family of archaeal helicases can enhance the performance of a nanopore sequencer. These awards allowed myself and a colleague, James Chong, to strengthen our collaboration with ONT with projects that will run through the end of 2021.

#### What are your future plans for this work?

Over the next year, we'll use our PoC funding to develop a pipeline that will allow us to produce 20-40 new helicase proteins for testing in nanopore sequencing experiments. The outcome of these experiments will determine where the project goes next. We will continue to work with ONT on any interesting findings, including considering joint applications to the BBSRC or other funders for follow-up funding.

#### What have you gained from BioProNET science meetings?

I presented findings from the BIV project at BioProNET's 2016 Meeting. This was a great opportunity to talk to scientists who were experienced in academic/industry collaborations, and to learn about the type of data that would be needed to apply for the future funding opportunities. And I really appreciated the wide-range of talks at the 4<sup>th</sup> Annual Science Meeting in 2017; there were many useful things that I could take away.

