



## Overview

Dr. Nathan J. Kenny, a postdoctoral fellow at Oxford Brookes University's Department of Biological and Medical Sciences, is part of a team researching how animals can regenerate parts of their bodies after injury. The project focuses on the regenerative power of the cells of different species of worms, using single-cell sequencing techniques.



RESEARCHER  
Dr. Nathan J. Kenny

ORGANISATION  
Oxford Brookes University

FIELD OF STUDY  
Medical & Health Sciences

LOCATION  
United Kingdom

OCRE RESOURCES USED  
Cloud IaaS Voucher

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The reason why we're interested is that worms can regenerate almost any part of their body, including their head. So you can see the obvious medical benefits that would come out of our research.

Dr. Nathan J. Kenny  
Postdoctoral Fellow, Oxford Brookes University,  
Department of Biological and Medical Sciences

## CHALLENGE

### Sharing resources with other university scientists

In the beginning, the scientists faced several challenges. At first they could use only local computational resources. However, the project required large amounts of storage and CPU-intensive processing, so the computational resources quickly became a limiting factor. The possibility to take advantage of a cloud-based solution became very attractive.

In addition to this, as this is a university-funded project, the researchers had to use server resources that were shared with other users. This caused friction with other researchers, who had to compete for the resources which were being taken up by the sizable files used in this single-cell sequencing project. As such, one of the biggest bottlenecks the team faced was getting access to the resources that other people were needing to use at the same time.

## SOLUTION

### OCRE's CloudSigma cloud resources vouchers

Thanks to OCRE's vouchers for CloudSigma's powerful and agile cloud solution, the research project was able to progress much more quickly and efficiently. The vouchers solved the issue of limited local computational resources.

Having a cloud solution in their hands not only allowed the scientists to have the resources exactly when they needed them, but also gave them technical assistance through a helpful personal account manager and 24/7 free technical support for any possible issues faced along the way.

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Before moving to the cloud, we encountered bottlenecks in terms of access to resources that other scientists wanted to use at the same time. Having CloudSigma's scalability, being able to spin up multiple instances simultaneously, helped us solve that problem in a really efficient way.

Dr. Nathan J. Kenny  
Postdoctoral Fellow, Oxford Brookes University,  
Department of Biological and Medical Sciences

## IMPACT

### Improved research outcomes

Ever since working with cloud solutions, the research team has been able to carry on with their research more efficiently. Currently, their deployment is relatively stable. Generally it is hard to predict when project results and data sets will get delivered in a lab setting, but having access to cloud resources enabled the scientists manage their research and lab work effectively.



There is no doubt that adopting cloud solutions enabled the researchers to conduct their experiments with more agility and flexibility. At the same time, they received faster and vastly improved outcomes.

Furthermore, working with the OCRE voucher program made it easier for the team to plan and get adequate funding for their research.

“Working with the cloud vouchers allows us to plan better. We were able to deal with the issues of the university’s administration and purchasing process, which can sometimes be frustrating. With the vouchers, you can buy them in advance, then you can use them when you need to, which makes things much easier.

Dr. Nathan J. Kenny  
Postdoctoral Fellow, Oxford Brookes University,  
Department of Biological and Medical Sciences