

What is BaBE?

Become a Biological Engineer (BaBE) aims to provide a range of activities to help members of the public better understanding how cells work and the emerging technologies that allow us to engineer their behaviours in new ways. It also offers a space to ask experts about this type of research and discuss the sorts of impact it could have – both good and bad. As a focus, we consider the hidden microbial world that lives in the soil and use DNA sequencing to search for useful biological parts. But what happens if we find something valuable, who would own it?

Facts & Figures

4 school visits

2 local events

1 festival

18 volunteers

38 student scientists

20 soil samples

22 hours of live DNA sequencing

~800 attendees (4–70 years old)

After attending more than 85% of participants felt they better understood what bioengineering was and how nanopore sequencing worked and 70% thought it should be used to help cure disease and produce sustainable materials. However, 45% wanted closer links between the public and scientists when exploring possible applications of new bioengineering methods.

This project would not have been possible without the help, dedication and support of the following people and organisations:

Core Team



Thomas
Gorochowski



Matthew
Tarnowski



Jim
Scown



Gilda
Varliero

Volunteers & Support

Celine Petitjean
Daniel Ward
Ellie Cripps
Emily Phelps
Gareth Coleman
Hannah Langlands
Joanne Boden
Katy Chapman

Mireia Bes Garcia
Roksana Wilson
Rosie Maddock
Sarah Dodd
Sim Castle
Ulrike Obst
Veronica Greco
Vittorio Bartoli

Schools & Events

Holly Jenkins, Students & Teachers at
Bristol Brunel Academy

Julie Parks, Student & Teachers at
Merchant's Academy

Justin Quinnell
Discover Light Primary School Event

Diane Thorne
Festival of Nature 2019
Tasmin Head
Fun Palaces, St Pauls

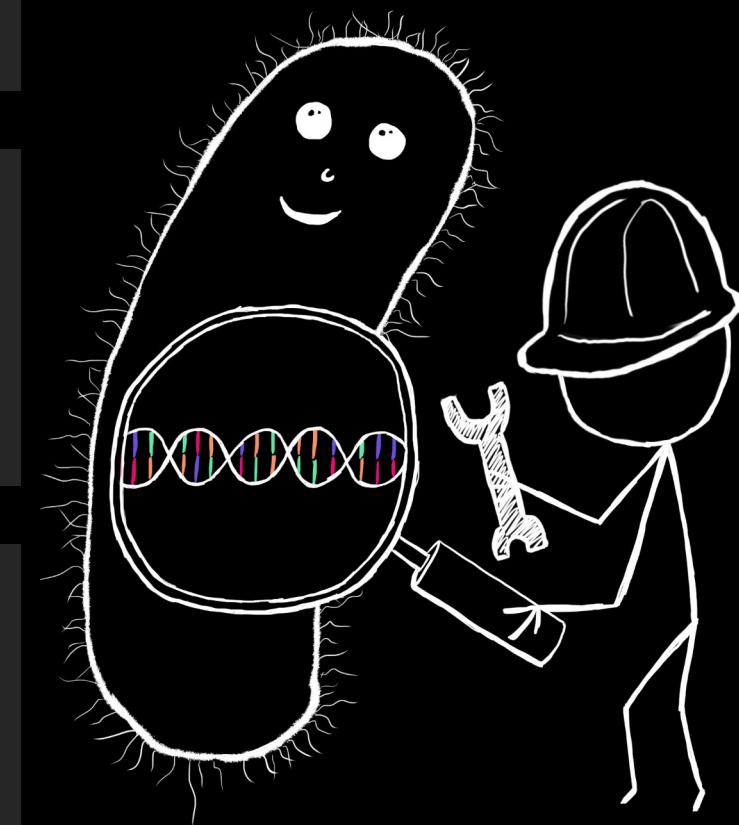


University of
BRISTOL
Bristol BioDesign Institute



Become a Biological Engineer

January – December 2019



Explore engineering the invisible microbial world that surrounds us

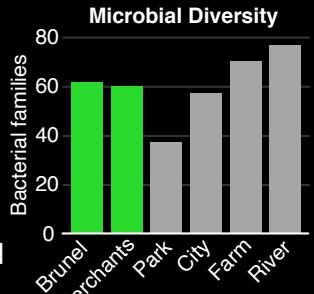
Made possible by a Royal Society Public Engagement Award (PEF2_180019)

School Visits

Two schools in Bristol were visited to recruit young scientists to sample soils and search for valuable biological parts to engineer new bacteria from. We showed them the MinION DNA sequencer we use in the lab and discussed how bioengineering works.



A second visit took place after sequencing their soil samples. We discussed their data and then wondered what would happen if a valuable bacterium had been found. Students took on the roles of possible interested parties to debate and vote on the best way forward.



Ashton Court Deer Park 1 Queens Square (City) 2



Fenwood Farm 3 Avon River Bank 4



Festivals & Events

Learn about the invisible world of microbes in soil and how we can engineer these organisms • See live DNA sequencing demos • Become a nanopore sequencer • Decode the DNA code • Tell us what you think and where we should sequence next.



FESTIVAL OF NATURE 2019

Sampling Locations



Preparing Samples

