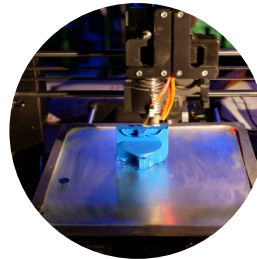


# Aegis Professor Undergraduate Competition

Launch event - 8 February 2023



[bristol.ac.uk](http://bristol.ac.uk)

Science  
Partnership  
Office



**CHAOS**

Matrix



**FUSION**  
CHEMISTRY SOCIETY

# Launch of the Aegis Professor UG Competition

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- Who we are and why we're here
- Background on the competition
- How the competition will run
- Support and training
  
- Have some fun and pizza
- Ask questions, meet people





# Launch of the Aegis Professor UG Competition

## Who we are

- University offices and staff involved
- Faculty Research Director – Prof Craig Butts
- Faculty Business Fellow – Prof Annela Seddon
- Assoc. Prof Dave Jarman – Centre for Innovation & Entrepreneurship
- Martha Cooper-Thorne – Bristol PLUS
- Student societies



This activity counts towards

Bristol PLUS Award

University of BRISTOL  
Careers Service



Science Partnership Office

# A Competition by Students for Students

Alongside the SPO, a team of student representatives from CHAOS, BUGGS, GEOGSOC, Fusion and Matrix have been supporting the design and organisation of the competition.

Do get in touch with anyone if you have any questions after the event:

- Giacomo Rosetti - CHAOS
- Arianna Margetts - CHAOS
- Eden Simkins - CHAOS
- Maddy Parker - Fusion
- Jess Bassett - BUGGS
- Seb Grey - GEOGSOC
- Carys Cronin - GEOGSOC
- Sage Horley - GEOGSOC
- Harleen Gulati - Matrix



**CHAOS**



**FUSION**  
CHEMISTRY SOCIETY

# Why and What?



# Aegis Professor Scheme - making connections with external expertise



**Andrew Humphris:** Aegis Professorship as Honorary Professor of NanoEngineering. May 2020.



**John Thompson:** Aegis Professorship of Sustainable Resources. January 2021.



**Michael Cuthbert:** Aegis Professorship in quantum technologies. Sept. 2021



**Albert Klein Tank:** Aegis Professorship in Climate Science. May 2022



**Rowena Innocent:** Aegis Professorship as Honorary Professor of Technology, Innovation and Equality. Dec 2021



**Anike Te:** Aegis Prof Engineering Biology. Sept 2022







# Professor Andy Humphris

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- Over to Professor Humphris.....Aegis Professor of NanoEngineering
  - Chief technical officer (CTO) of Infinitesima



# Aegis Professor Undergraduate Competition

Andrew Humphris

Founder & CTO, Infinitesima Ltd.

8<sup>th</sup> February 2023



# Prof. Andrew Humphris

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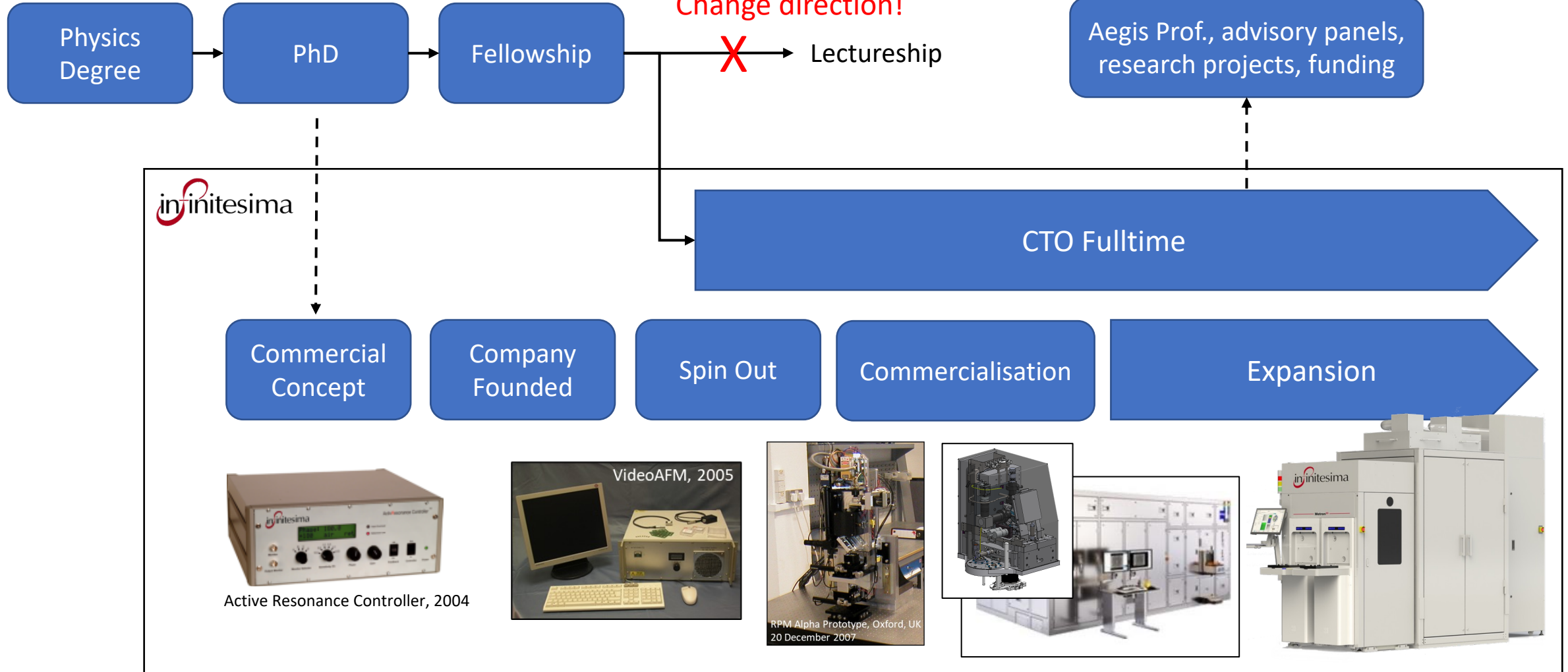
- Founder and CTO, Infinitesima Ltd.



- Aegis Professor, University of Bristol



# Journey to CTO at Infinesima



# Infinitesima Today

## Company

- Spin-out from University of Bristol
- Centrally located in Science Vale UK (South Oxfordshire)
- 50+ employees, >50% PhDs or MSc
- 720 m<sup>2</sup> offices and facility
- Class 100 cleanroom facility
- Application & R&D facility

## Technology

- Revolutionary high speed probe microscope
- Protected by >30 patent families
- Integrated leading Semiconductor equipment manufacturers
- Installed base at leading semiconductor manufacturers
- Strong Innovation Network

Research Network	OEM Equipment Customers	Standalone HVM	Leading IC Manufacturers
			
			
			
Research & Development Projects	Integrated in industry leading Mask repair system	Integrated in advanced Wafer Defect Review SEM	300mm High Volume Manufacturing
			Production of Advanced IC Masks and Wafers

# Aegis Professorship

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- Through Aegis Professorship:
  - Support and build relationships with partners outside University
  - Attended panel discussions and workshops
  - Work with undergraduate projects
  - Share my experience of commercialising technology
  - Placements and visitors at Infinitesima
- Explore applications outside semiconductors
- Identify new solutions to semiconductor problems
- and much more.....



# Aegis Professor Undergraduate Completion

## Aegis Professor Undergraduate Competition



### How can an organisation reduce its environmental footprint?

Proposed by Andy Humphris



#### Overview

There are a number of reasons why large companies are interested in their carbon emissions. Firstly, UK companies must comply with 2013 legislation and report on C-emissions. Secondly, companies are also aware that their customers care about the environment and they do not want to lose customers to other "greener" rivals. Thirdly, a good reputation in this context can also enhance company value - as investors are increasingly guided by environmental performance. For companies to win bid contracts with government organisations this has become very important.

#### Challenge

What are the contributing factors to a company's environmental footprint in different sectors? How does the product, and usage of that product, impact the environment? The team could focus on one element, e.g. waste reduction, energy reduction, changes in working practices etc. within a specific industry - for example, the ICT (information and communication technology) industries or the clothing industry.

Alternatively, the team could target behaviours that impact all industries. How could the team support industries, organisations and individuals to calculate and monitor their environmental footprint?

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Thank you!

# Launch of the Aegis Professor UG Competiton

- What is the competition about? How will it run?
  - <https://apuc.blogs.bristol.ac.uk/>
  - Not part of your assessed work, it's a competition with a cash prize
  - Inviting undergraduate students across the [Faculty of Science](#) to work in multidisciplinary teams to apply their knowledge to real-world scientific problems to raise awareness of how science research can be applied and commercialised

# Launch of the Aegis Professor UG Competition

- Support and Training
- Centre for Innovation and Entrepreneurship
- Bristol PLUS Award – Martha Cooper-Thorne





# Dave Jarman

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- Centre for Innovation and Entrepreneurship



# Challenge Support: Half-day event 5<sup>th</sup> June

- Where do good ideas come from?
- How do you evaluate if ideas are worth pursuing?
- Who are your beneficiaries, users, and customers and how are they best researched and later messaged about your product or service?
- How will you make it financially sustainable – is there a business model?

The Centre for Innovation and Entrepreneurship is the University's multi-award-winning centre supporting would-be designers, entrepreneurs, and innovators.



# Martha Cooper-Thorne

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Bristol PLUS.....over to Martha

This activity  
counts towards

Bristol  
PLUS  
Award

 University of  
BRISTOL  
Careers Service







Careers Service

# The Bristol PLUS Award

[bristol.ac.uk/careers](http://bristol.ac.uk/careers)





# Maximise your year with the Bristol PLUS Award!

- **Get rewarded** for developing extracurricular skills
- Bring your learning to life and apply your skills to real life situations
- Gain knowledge of career paths, **learn how to succeed at interview** and enhance your CV
- Enhance your university experience, build connections and support your positive wellbeing.
- Unlock the opportunity to take part in the **Outstanding PLUS Awards**
- Stand out to employers by developing skills and increasing your employability
- Recommended by students, endorsed by employers and **recorded on your degree transcript!**





**Katie Ingram-King**  
Year 2 Sociology UG

**'The Bristol PLUS Award experience has allowed me to take a new approach to my employability, and to fully understand myself and my current transferable skills as well as what I want in a career.'**

- Interview skills workshop
- Safeguarding certified course
- Online Leadership course
- Get Hired! Careers Fair

Introductory talk

- Health Care Assistant part time job (700 hours)
- Course Rep (10 hours)
- Chief Residency Officer (120 hours)

4 workshops or courses

+

70 hours experience

+

Bristol Futures online course

Reflective report

Global Citizenship, Autumn round

# Challenge accepted?

- Registration for this year's Bristol PLUS Award closes on **12 Feb 2023**
- **The last introductory talk for this year is Friday 10 February**
- You can register and complete your PLUS in any year of your studies
- Experience from any year of your studies can be used towards your Award
- Registration will open again in Welcome Week for next academic year
- Visit the [website](#) to find out more





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