



EDESIA: Plants, Food and Health: a Cross-Disciplinary PhD Programme from Crop to Clinic

- **Wellcome Trust-funded four-year PhD programme**
- **£5.3M**
- **5 students a year for 5 years (starting 2020 entry)**
- **Including 2 international students per year**
- **Ian Clark, UEA (Director); Cathie Martin, JIC (Co-Director)**





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- **Student application deadline: 13th January 2020**
- **Supervisor application deadline: 9th December 2019**
- **www.uea.ac.uk/phd/edesia**



- **Metabolic engineering of plants which enhance or optimize concentrations of specific nutrients**
- State of the art approaches to breeding and genome editing of crops
- **The function of the gut microbiome in the absorption of plant-based foods and their further metabolism by human tissues**
- Use of the latest 'omics' technologies to measure changes in metabolism and gene expression
- **Biochemical, genetic, cell biological and functional analysis of plant metabolites**
- In vitro analysis of the biological activity of key metabolites in model tissues and cell cultures
- **Investigation of mechanisms of action in animal models of disease**
- Innovative approaches to bioinformatics, mathematical biology and metagenomics
- **Complex statistical analyses of large prospective cohort datasets**
- Human intervention studies

YEAR 1

Induction

3 x rotations across NRP

TNA

PPD Mandatory training

YEAR 2

YEAR 3

YEAR 4

YEAR 5

Doctoral research project

Short visit to international collaborator

Attendance national conference

Attendance international conference

PPD Optional modules

EDESIA Journal Club

EDESIA Seminars

EDESIA Conference

EDESIA Conference

PhD to Professional / Career placement preparation

Career placement

Changes to promote a positive research culture

Publications

We'll encourage programmes and supervisors to support students to submit their research to platforms such as Wellcome Open Research, or to preprint servers like bioRxiv. This will allow trainees to get credit for their work in a timely manner.

Wellcome assesses researchers based on the work they have done, and does not use journal names or Journal Impact Factors as proxies for quality.

Diversity and inclusion

Institutions must think creatively about how to use the increased flexibility of the scheme to attract a broader diversity of candidates from a wide range of backgrounds and disciplines.

Diversity and inclusion is one of Wellcome's strategic priority areas. We are committed to creating an inclusive research culture and we expect our funded institutions to play their part in this.

Mental health

We'll ask our PhD programmes to take innovative approaches to protect students' mental health, and to commit to sharing best practice.

We've recently published a new policy on bullying and harassment in which we set out what we expect from researchers and the organisations we fund. It sits alongside our policies on good research practice and research misconduct.

Funded programmes:

- **The HDRUK/Turing Wellcome PhD Programme in Health Data Science - Peter Diggle et al Health Data Research UK**
- **Neuro-Immune Interactions in Health and Disease – Leonie Taams et al, Kings College London**
- **Advanced Therapies for Regenerative Medicine – Francesca Spagnoli et al Kings College London**
- **ImmunoMatrix in Complex Disease – Tracey Hussell et al , Manchester**
- **Health Data in Practice: Human-centred Science – Carol Dezateux et al QMUL**
- **UCL Wellcome 4-year PhD in Mental Health Science – Jonathan Roiser et al UCL**
- **Optical Biology – Michael Hausser et al, UCL**
- **Dynamic Molecular Cell Biology – Peter Cullen et al Bristol**
- **Molecular, Genetic and Lifecourse Epidemiology- Caroline Relton et al Bristol**
- **Stem Cell Biology and Medicine – Brian Hendrich et al Cambridge**
- **Molecular and Cellular Biology, Ronald Hay et al Dundee**
- **Hosts, Pathogens and Global Health, - Keith Matthews et al Edinburgh**
- **Integrative Cell Mechanisms - Robin Allshire et al Edinburgh**
- **One Health Models of Disease: Science, Ethics and Society – Ross Fitzgerald et al Edinburgh**
- **Translational Neuroscience 2 – Stephen Laurie et al Edinburgh**
- **Integrative Infection Biology – Mechanisms and Control of Disease – Matthias Marti et al Glasgow**
- **Genomic Epidemiology and Public Health Genomics – Martin Tobin et al Leicester**
- **Drug Discovery and Team Science – Jeanette Woolard et al Nottingham**
- **Cellular Structural Biology – Higgins et al Oxford**
- **Genomic Medicine and Statistics – Julian Knight et al Oxford**
- **Chemistry in Cells – Stuart Conway et al Oxford**
- **Public Health Economics and Decision Science – Mark Strong et al Sheffield**