

Applicant Guidance

2025 Cohort

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Timeline for applications and selection

Action	Date
Projects advertised on FoodBioSystems website	Thursday 19 December 2024
Online application system opens	Friday 20 December 2024
Closing date for requesting a mentor (eligible applicants only)	Friday 17 January 2025 (09:00 GMT)
Closing date for student applications	Monday 3 February 2025 (10:00 GMT)
Student interview window (shortlisted candidates will be contacted by project supervisors between 3 – 14 March 2025)	10 – 21 March 2025
Candidates not shortlisted notified by email	6 - 14 March 2025
Award/rejection letters sent to shortlisted applicants	11 April 2025

Available studentships

The FoodBioSystems Doctoral Training Partnership (DTP) is advertising 39 PhD projects. We are looking for candidates from a broad range of scientific backgrounds including: agricultural sciences; analytical chemistry; arable farming; artificial intelligence; biochemistry; bioinformatics; biological science; biotechnology; data science; ecology, entomology, environmental chemistry and geography; food production and science; genomics; livestock farming, health and welfare; machine learning; mathematical modelling; microbiology; nutrition; and soil science.

We will be awarding around 22 salaried studentships through a competitive process (a maximum of 6 studentships will be available to students who require a visa to study in the UK). Studentships will be for four years full-time and will start in autumn 2025. Studentship opportunities are available at Aberystwyth University, Brunel University, Cranfield University, University of Lincoln, Queen's University Belfast, University of Reading and University of Surrey.

[Project titles](#) and supervisors are listed at the end of this document and project descriptions can be [viewed](#) on the FoodBioSystems DTP website.

How to apply

ALL applications to FoodBioSystems DTP are made via the [DTP's online application form](#), irrespective of the location of the specific project (Surrey, Reading, Queen's, Lincoln, Cranfield, Brunel or Aberystwyth). You can apply to a maximum of TWO PhD projects.

Project details are available on the [FoodBioSystems DTP website](#). Each project description indicates the name and institution of the lead supervisor and has a project ID number. You are welcome and encouraged to email the lead supervisors of projects to ask them any questions you may have or to discuss the project.

You will need the following documents to support your application:

- Official transcripts of your higher education qualifications, inclusive of grades
- Evidence of your proficiency in English if English is not your first language (you can provide this later if you have not completed an IELTS test before the application closing date).

You must also provide the name and email address of someone who will provide a confidential academic reference letter. The DTP office will request the letter from your referee directly if you are shortlisted for interview.

Application closing date

Applications must be submitted via the [online application form](#) by 10:00 am (GMT) on Monday 3 February 2025.

Being a FoodBioSystems DTP funded student

As a fully funded FoodBioSystems postgraduate research student you will undertake training that leads towards a PhD and equips you with extra skills and knowledge to support your future career. Your research project will be co-supervised across two institutes within our academic partnership, and you will take part in our training programme

to gain a core understanding of food systems, data analysis and modelling. You will also follow a programme of subject-specific learning, depending on your needs. In addition, you will conduct a professional internship (generally not related to the research project).

Please explore our website to find out more about the [DTP training programme](#) and [current projects](#) at the six partner universities, and meet some of our [researchers](#) to see what they have said about their research and training experiences.

Equality, Diversity and Inclusion

The FoodBioSystems DTP is committed to equality, diversity and inclusion (EDI). We want to build a doctoral researcher and staff body that reflects the diversity of society, and to encourage applications from under-represented and disadvantaged groups.

Applicants with disabilities and/or specific learning differences

Applicants can choose to disclose a disability or specific learning difference on the application form. The DTP office will contact shortlisted applicants who have made this disclosure so we can offer reasonable adjustments to interviews. This information is kept confidential unless the applicant chooses to share it with the interview panels.

Guaranteed interview scheme

FoodBioSystems DTP offers a guaranteed interview scheme (GIS) for home student candidates from eligible under-represented ethnic groups. This is an opt-in process. Applicants can participate in this scheme if they meet the following criteria:

1. Hold UK home student fee status for 2025 entry
2. Identify as:
 - a. Black, African, Caribbean or Black British
 - b. Asian or Asian British
 - c. Belonging to mixed or multiple ethnic groups
3. Hold or expect to obtain a minimum of a 2.1 undergraduate degree in a relevant subject, or equivalent qualification

Candidates with a guaranteed interview must also provide full written answers to all questions about research and transferable skills in the application form. Assessment of written answers and interview performance are both considered when awarding studentships (see [assessment criteria](#)).

Applicant mentoring scheme

We offer applicants, who meet GIS criteria, an opportunity to apply to our applicant mentoring programme. Applicants who are accepted onto the mentoring programme will receive four mentoring sessions, with a current DTP student with mentor training, during the application process.

- **Meeting one:** (early in week of 20 January 2025) A brief pre-application discussion with the mentor
- **Meeting two:** (later in week of 20 January 2025) An application writing support session
- **Meeting three:** (mid-late February 2025) An interview preparation session
- **Meeting four:** (after 14 April 2025) A post application outcome reflection session

To be eligible to receive mentoring, applicants must:

1. Identify as:
 - a. Black, African, Caribbean or Black British
 - b. Asian or Asian British
 - c. Belonging to mixed or multiple ethnic groups
2. Hold or expect to obtain a minimum of a 2.1 undergraduate degree in a relevant subject, or equivalent qualification
3. Hold UK home student fee status for 2025 entry

Priority will be given to applicants who meet the above criteria and also identify with one of the following:

- Have ever been in receipt of free school meals
- Are the first in their family to attend higher education
- Have completed/are completing their undergraduate studies at a non-Russell Group university

How to request a mentor

If you are eligible to apply to the guaranteed interview scheme and would like to meet with a mentor, please complete the personal details and equality, diversity and inclusion sections of the [online application form](#). You must do this before 09:00 (GMT) on Friday 17 January 2025.

If you are eligible for the scheme, we will contact you shortly after 20 January with details of your proposed mentor. Please note: We will only share your name and email address with mentors. Other personal information will be kept confidential and used by the DTP office if we need to prioritise applications according to the eligibility scheme criteria.

Please do not request a mentor after the closing date for this scheme (09:00 on 17 January 2024). We will not be able to assign you a mentor after this date.

Part-time registration

In addition to full-time registration, our studentships are offered on a part-time basis. The minimum registration is 50% FT, and the studentship end date will be extended to reflect the part-time registration. We recommend that if part-time studentships are combined with paid employment, the overall time commitment does not exceed 35-40 hours per week. If the demands of a particular research project include defined periods of longer working hours, we expect that the student should not be required to work more than an average of 48 hours per week measured over a 17 week period. This is in line with UK law on maximum working hours.

Most partner universities require part-time students to register at 0.5 FTE over a maximum period of eight years. At University of Reading, DTP funded students can register either full-time or at 0.67 FTE over a maximum period of six years. Candidates who are awarded a studentship, and wish to register part-time, must discuss arrangements with the project supervisor and DTP office before enrolment.

About the studentships

Funding information

FoodBioSystems DTP students receive a tax-free stipend (salary) for four years so that they can benefit from the DTP training programme in addition to completing their research and submitting the thesis within 4 years registration period. The stipend is set by UK Research and Innovation (UKRI) and in 2024/25 is £19,237 (or £21,237 for a studentship based at Brunel University). The pay increases slightly each year at rate determined by UKRI.

The DTP also pays tuition fees at the standard UK rate and contributes to the research project costs.

We anticipate that DTP partner universities will cover the difference in the UK/Ireland fees and international fees for international UKRI funded students. For further information on this, please refer to the individual university websites. However, please note that the studentship does not cover the following costs: visa fees, healthcare surcharge, relocation costs and guarantor services.

Academic Eligibility

An upper 2nd class honours degree (or equivalent) is required in a subject appropriate to the PhD project applied for (see the [project descriptions](#) for more information). Candidates with a lower class of bachelor's degree, but good performance at master's level (merit or above) will also be considered. If you have an international qualification, please check the degree course eligibility information provided by the host universities before you apply to the DTP: [Aberystwyth University](#), [Brunel University](#), [Cranfield University](#), [University of Lincoln](#), [Queen's University Belfast](#), [University of Reading](#), and [University of Surrey](#). To support accessibility to PhD training opportunities, these

studentships are only available to applicants that have not previously obtained, or are about to obtain, a PhD degree (or equivalent).

Funding Eligibility

Home students

The majority of our funding (minimum 70%) is available to students with UK/home fees status. To be classed as a home student, candidates must meet the following criteria:

- Be a UK or Irish National (meeting residency requirements), or
- Have settled status in the UK (under EU Settlement Scheme), or
- Have pre-settled status in the UK and meet residency requirements (under EU Settlement Scheme) or
- Have indefinite leave to remain or enter.

Further information about eligibility for UK home fees status

UK National

The UK includes the United Kingdom and Islands (i.e. the Channel Islands and the Isle of Man). In terms of residency requirements for UK and Irish nationals, for courses starting from 1 August 2021, candidates will continue to be eligible for home fee status as long as:

- They were living in the EEA or Switzerland on 31 December 2020, and have lived in the EEA, Switzerland, the UK or Gibraltar for at least the last 3 years before starting a course in the UK
- Have lived continuously in the EEA, Switzerland, the UK or Gibraltar between 31 December 2020 and the start of the course
- The course starts before 1 January 2028

EU Settlement Scheme

EU, EEA or Swiss citizens can apply to the [EU Settlement Scheme](#) to continue living in the UK after 30 June 2021. If successful, applicants will get either settled or pre-settled status. Those with pre-settled status will qualify as a home student if they have 3 years residency in the UK/EEA/Gibraltar/Switzerland immediately before the start of their course.

Indefinite leave to remain (ILR) or Indefinite leave to enter (ILE)

Candidates with ILR or ILE can continue to live in the UK without applying to the EU Settlement Scheme.

International students

We welcome applications from international students (candidates who do not meet the above criteria for UK home fees status and require a visa to study in the UK). However, UKRI funding conditions mean that the DTP can only offer a maximum of 30% of the total number of studentships to international students. Between 2022 and 2024 approximately 1/100 international student applicants were successful (see Table 1).

Fees for international students funded by FoodBioSystems DTP

Further funding eligibility information

Funding for PhD studentships from BBSRC is only available to successful candidates who meet the eligibility criteria set out in the UKRI harmonised [training conditions](#). Offers of studentships to successful candidates will be conditional on acceptance onto PhD programmes at the host universities.

Language proficiency

Candidates must demonstrate the level of English proficiency required by the university that will be hosting the PhD studentship (the university where the project's lead supervisor works). If you have completed a degree or higher degree in a course that was taught in English, this may be sufficient evidence of your language proficiency. Please check the relevant university website, or contact the relevant university admissions office, for further details:

[Aberystwyth University](#), [Brunel University](#), [Cranfield University](#), [University of Lincoln](#), [Queen's University Belfast](#), [University of Reading](#), [University of Surrey](#).

Previous applicant success rates

Success rates for home and international student applicants to the DTP (2022-24) are outlined in Table 1 below:

Cohort	Number of international student applicants	% international applicants awarded a studentship	Number of home student applicants	% home applicants awarded a studentship
2022	501	1.4%	86	23%
2023	774	0.9%	90	26%
2024	1176	0.9%	87	24%

How we select students

Applications received before the closing date and time are considered in two stages:

Shortlisting

Applications are checked for academic and funding eligibility. Eligible applications are anonymised and then considered by the PhD project supervisors. They mark the application answers against the [assessment criteria](#). At this stage supervisors do not know the name, contact details or degree-awarding university of applicants. The four highest scoring candidates for each project will be invited to interview.

Interviews and selection panel assessment

Interviews

If your application is shortlisted you will receive an invitation to an online interview (on Skype, Teams or Zoom). As part of the interview, you will be asked to give a short (maximum five minutes) presentation on a piece of research that you have conducted previously. This will be followed by five minutes for questions about the presentation topic. During the remainder of the interview, additional questions will explore:

- How your skills and experience prepare you for the specific project
- Other questions about potential impact of the proposed research project, problem-solving skills, and how a PhD fits into your career plans

Selection panel assessment

If you are selected for an interview, a panel of reviewers from the DTP Selection Committee will also assess the written answers from your application form. They will not know your name, contact details or degree-awarding university at this stage.

Assessment criteria

We ask applicants to provide information about their academic qualifications, research experience and transferable skills. It is essential that all applicants (including those applying for a guaranteed interview) provide full answers in their written application, as these are assessed at least once during the selection process.

The table below shows what essential criteria the DTP looks for in our PhD student candidates and where in the selection process we assess those criteria.

Essential Selection Criteria	Stage Assessed		
	Shortlisting	Interview	Selection Panel review of application form answers
Suitability of academic qualifications and background for the project	x	x	
Academic and technical understanding of the research topic presented during the interview		x	
Suitability of project specific research experience and technical skills	x	x	
Suitability of general research experience and technical skills for doing a FoodBioSystems DTP PhD	x		x
Ability to relate own skills to the proposed PhD project	x	x	
Transferable skills/competencies (organisation, problem solving, team-working, and interpersonal/communication)	x	x	x
Understanding of the proposed PhD project in context of the UK agri-food sector		x	
Motivation for undertaking PhD research with the FoodBioSystems DTP			x
Awareness of how the PhD project fits into own career plans		x	

The selection panel will make the final decision on project allocation, considering applicants' performance at interview and reviewer assessments of written answers.

Contacts

If you have any questions that are not answered by this document, please contact [the DTP office](#). Enquiries about advertised projects should be directed to the relevant project supervisor.

Please contact project supervisors with enquiries about individual projects. Email addresses are available in the adverts listed on the [DTP website](#).

Proposed projects for 2025 DTP cohort

Available projects are listed below; they are grouped by research areas (stated in the left-hand column). Project outlines are available in the adverts on the [DTP website](#).

Research area	Project number	Project title	Lead Supervisor / University	Co-Supervisor / University
biotechnology for health	FBS25-60-Adams-ab	SALternatives from seaweed: salt reduction in foods through seaweed extracts	Jessica Adams, Aberystwyth University	Ximena Schmidt, Brunel University
biotechnology for health	FBS25-56-Cramer-ra	TB or not TB – developing the next generation technology for rapid bovine tuberculosis detection	Rainer Cramer, University of Reading	Amanda Gibson, Aberystwyth University
combatting antimicrobial resistance	FBS25-14-Wheatley-qa	Mapping the farmscape of antibiotic resistance: metagenomes, antibiotic resistance genes, and mobile genetic elements	Rachel Wheatley, Queen's University Belfast	Arwyn Edwards, Aberystwyth University
crop health	FBS25-30-Whitworth-ac	Genome editing enhanced myxobacterial predators for biological control of diverse crop pathogens	David Whitworth, Aberystwyth University	Zoltan Kevei, Cranfield University
farmed animal health and welfare	FBS25-78-Bamford-qs	VIROWORM: Characterising the Interplay between Parasitic Nematodes, Viruses and their Hosts	Connor Bamford, Queen's University Belfast	Martha Betson, University of Surrey
farmed animal health and welfare	FBS25-65-Gibson-as	Unravelling Bovine Tuberculosis: Novel Biomarker Discovery and Host-Pathogen Interaction Insights through Transcriptomic Analysis	Amanda Gibson, Aberystwyth University	Suzie Hingley-Wilson, University of Surrey

Research area	Project number	Project title	Lead Supervisor / University	Co-Supervisor / University
farmed animal health and welfare	FBS25-35-Dutta-sq	AI Powered Multi-modal Approaches for Animal Behaviour Analysis and Welfare Monitoring using Unannotated Data	Anjan Dutta, University of Surrey	Ilias Kyriazakis, Queen's University Belfast
farmed animal health and welfare	FBS25-52-Wilcockson-al	Chronobiological changes in behaviour, development and immunity of salmon lice larvae (ChronoLice)	David Wilcockson, Aberystwyth University	Sheena Cotter, University of Lincoln
farmed animal health and welfare	FBS25-02-Prada-sq	Future-proofing livestock health by quantifying the burden of disease and benefits of sustainable interventions	Joaquin Prada, University of Surrey	Eric Morgan, Queen's University Belfast
farmed animal health and welfare	FBS25-68-Morphew-aq	Protein-protein interactions for control of the ruminant parasite the liver fluke	Russ Morphew, Aberystwyth University	Aaron Maule, Queen's University Belfast
food safety (microbial)	FBS25-21-Troisi-bs	Antimicrobial Resistant Genes (ARG) & Pollutants – from Seabed to Seafood Platter	Gera Troisi, Brunel University	Roberto La Ragione, University of Surrey
food safety (other)	FBS25-36-Anastasiadi-cq	From hive to home: A holistic approach to honey authentication	Maria Anastasiadi, Cranfield University	Katrina Campbell, Queen's University Belfast

Research area	Project number	Project title	Lead Supervisor / University	Co-Supervisor / University
food safety (other)	FBS25-63-Felipe-Sotelo-sr	Translocation pathways of gadolinium from wastewater into the food chain: accumulation, distribution and speciation in crops	Monica Felipe-Sotelo	Tom Sizmur, University of Reading
lifelong health	FBS25-15-Tocmo-rq	Designing next-generation plant-dairy hybrid ingredients to support gut health and immunity	Restituto Tocmo, University of Reading	Qiaozhu Su, Queen's University Belfast
nutrition	FBS25-20-Elliott-sr	Beyond bone health: How does vitamin D protect our DNA?	Ruan Elliott, University of Surrey	Marcus Tindall, University of Reading
nutrition	FBS25-70-Ozen-rs	Exploring the sensory and appetite-regulating potential of edible insects in adults with obesity	Ezgi Ozen, University of Reading	Ralph Manders, University of Surrey
one health	FBS25-20-Elliott-sr	Beyond bone health: How does vitamin D protect our DNA?	Ruan Elliott, University of Surrey	Marcus Tindall, University of Reading
one health	FBS25-82-McVeigh-qa	Validating circulating biomarkers for liver fluke diagnostics	Paul McVeigh, Queen's University Belfast	Russ Morphew, Aberystwyth University

Research area	Project number	Project title	Lead Supervisor / University	Co-Supervisor / University
precision agriculture and smart technologies	FBS25-25-Doonan-ac	AI-mazing Agriculture: Mitigating Seasonality Effects in UK Controlled Environments	John Doonan, Aberystwyth University	Sofia Kourmpetli, Cranfield University
precision agriculture and smart technologies	FBS25-05-Oni-sr	AI-Based Acoustic Monitoring in Turkey Poults for Productivity, Health and Welfare	Oluwole Oni, University of Surrey	Caroline Rymer, University of Reading
precision agriculture and smart technologies	FBS25-73-Parsons-lr	Using AI to manage multi-species grassland for livestock farming	Simon Parsons, University of Lincoln	Zoe Barker, University of Reading
reducing waste	FBS25-17-McCarthy-bc	Engineering Bacteria for Enhanced Degradation of Food-Associated Plastic Waste.	Ronan McCarthy, Brunel University	Francis Hassard, Cranfield University
reducing waste	FBS25-76-Rampelos-lc	ValueWaste: Revealing the potential of Organo-Mineral Fertilisers to enhance crop productivity, as well as improve soil health and sustainability.	Leonidas Rempelos, University of Lincoln	Ruben Sakrabani, Cranfield University
sustainable agricultural systems	FBS25-03-KeveiZ-ca	Genomic Selection to accelerate raspberry breeding	Zoltan Kevei, Cranfield University	Gancho Slavov, Aberystwyth University

Research area	Project number	Project title	Lead Supervisor / University	Co-Supervisor / University
sustainable agricultural systems	FBS25-24-Edwards-aq	Awakening the dormant soil microbiome	Arwyn Edwards, Aberystwyth University	Rachel Wheatley, Queen's University Belfast
sustainable agricultural systems	FBS25-26-Garratt-rc	Optimising above and belowground ecosystem services for sustainable crop production	Michael Garratt, University of Reading	Alice Johnston, Cranfield University
sustainable agricultural systems	FBS25-34-Larionov-cr	Multi-omics analysis of nitrogen metabolism by the soil microbial community	Alexey Larionov, Cranfield University	Tom Sizmur, University of Reading
sustainable agricultural systems	FBS25-37-Oyama-qa	Exploring the North Ronaldsay Sheep Microbiome: Unlocking Enzymes for Sustainable Agriculture and Biotechnology	Linda Oyama, Queen's University Belfast	Jessica Adams, Aberystwyth University
sustainable agricultural systems	FBS25-39-Harrison-rc	Application of an optimality-based crop model to predict future cereal yields	Sandy Harrison, University of Reading	Paul Burgess, Cranfield University
sustainable agricultural systems	FBS25-41-Sakrabani-cq	Evaluating suitability of graphitic carbon from methane cracking to improve soil nutrient retention for crop uptake	Ruben Sakrabani, Cranfield University	Paul Williams, Queen's University Belfast
sustainable agricultural systems	FBS25-74-Kirk-cr	Greenhouse gas removal using plants and soil: enhanced rock weathering on land	Guy Kirk, Cranfield University	John Hammond, University of Reading
sustainable agricultural systems	FBS25-49-Stergiadis-rq	AI-based discovery of methane mitigation additives for ruminants	Sokratis Stergiadis, University of Reading	Katerina Theodoridou, Queen's University Belfast

Research area	Project number	Project title	Lead Supervisor / University	Co-Supervisor / University
sustainable agricultural systems	FBS25-57-Lukac-rs	Novel pathways to transition complex supply chains to regenerative agriculture	Martin Lukac, University of Reading	Stelvia Matos, University of Surrey
sustainable agricultural systems	FBS25-71-Williams-qr	Biochar Interventions to Improve Soil Health Under Oil Palm : Ensuring Agronomic and Environmental Sustainability of the Fastest Expanding Equatorial Crop	Paul Williams, Queen's University Belfast	Tom Sizmur, University of Reading
sustainable agricultural systems	FBS25-42-Shaw-rc	Beyond nitrogen and the nodule: How rhizobial trait diversity enhances crops, soil and environmental health	Liz Shaw, University of Reading	Mark Pawlett, Cranfield University
sustainable agricultural systems	FBS25-50-Theodoridou-qr	Climate-Friendly Beef: Long-Term Assessment of Methane Inhibitors	Katerina Theodoridou, Queen's University Belfast	Sokratis Stergiadis, University of Reading
sustainable agricultural systems	FBS25-69-Wright-qr	Rethinking Animal Farming for Healthy Diets and a Healthy Planet	David Wright, Queen's University Belfast	Julie Lovegrove, University of Reading
sustainable agricultural systems	FBS25-81-Lloyd-ac	Decoding Heat Tolerance At Flowering: Using Multi-omics Approaches to Unlock Crop Resilience	Andrew Lloyd, Aberystwyth University	Fady Mohareb, Cranfield University
understanding and exploiting genomics	FBS25-45-Stephens-ra	A receptor-ligand module with practical applications to improve food production	Gary Stephens, University of Reading	Maurice Bosch, Aberystwyth University

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