

Job Description

Research Fellow in Conservation Genomics

Salary:	Grade 8, pt 38.
Contract:	Full time, fixed term, 3.5 years.
School/Department:	School of Natural Sciences
Location:	Canterbury Campus
Responsible to:	Prof Jim Groombridge, DICE
Start date:	1 st January 2026

Job purpose

To play a leading role in delivering on a NERC-funded project entitled '*Genomic signatures of host resistance to virus infection in birds*' (Principle Investigator: [Prof Jim Groombridge](#)). This exciting project on avian host-pathogen genomic systems aims to develop Deep Learning models to predict host resistance to circovirus infection in parrots. Available for the project will be ecological and life-history data sets and archived samples collected during the restoration of the Mauritius (echo) parakeet. Transcriptomic and genomic approaches will build upon existing whole genome datasets across multiple avian systems that have experienced circovirus outbreaks. You will join a collaborative team of evolutionary geneticists, bioinformaticians, virologists, AI modellers and conservation scientists co-led by [Prof Jim Groombridge](#) at Kent, [Prof C. van Oosterhout](#) at the University of East Anglia and [Asst. Prof. Hernan Morales](#) at the University of Copenhagen,.

You will have very strong hands-on expertise in bioinformatics and designing and using Deep Neural Network / Artificial Intelligence (AI) models to analyse genomic data. You will have excellent time management skills, be able to deliver innovative research against deadlines, and have a proven track record of successful collaborative research with external organisations. You will be expected to perform high-quality research, produce impactful publications, and present your work at conferences, ensuring your research has influence both within academia and beyond. You will have an opportunity to supervise and mentor postgraduate students, fostering an environment of academic excellence. You will also have an opportunity to contribute to teaching and learning within the School, helping to ensure students benefit from the latest research insights.

About DICE

DICE is a world-leading institute, ranked 1st in the UK for the quality of our outputs in the REF21 Geography and Environmental Studies unit of assessment, and was awarded a Queen's Anniversary Prize in 2019 in recognition of our 'pioneering education, capacity building and research in global nature conservation'. DICE was recently awarded >£10 million of research investment from Research England's prestigious Expanding Excellence in England (E3) scheme, alongside >£2 million funding from the Leverhulme Trust to support a cohort of doctoral scholars over the next 7 years, confirming the University of Kent as the UK's leading interdisciplinary research training centre in conservation.

We are very open to applications from candidates from diverse backgrounds and career paths, irrespective of geographical, sectoral and inter-organisational mobility. Career breaks will not be penalised. We also particularly welcome candidates who identify as other than male and from non-white ethnicities.

Key accountabilities and Duties

- **Plan, coordinate and implement** NERC research project '*Genomic signatures of host resistance to virus infection in birds*', by **taking lead responsibility for**; (i) Supporting field-sampling activities and perform transcriptome/gene expression and genomic analyses; (ii) Building, training and applying Deep Neural

Network / AI models to a range of datasets; (iii) Testing model performance on a range of avian genomic and disease databases.

- **Publish research findings** in high-quality, peer-reviewed journals, present at conferences and disseminate knowledge through various academic and public engagement channels.
- **Develop productive working relationships with external collaborators and project partners**, support and build external research networks, and engage with wider policy and academic partners.
- **Monitor research budget, identify sources of funding and contribute to process of securing additional funds.**
- Support and mentor **postgraduate research students in developing their research techniques** and in their academic and professional development.
- **Routinely communicate complex and conceptual ideas** to both specialist and non-specialist audiences, using appropriate media and platforms.
- **Ensure research is conducted to high ethical and professional standards**, including adherence to health and safety, risk assessment and governance requirements.

Internal & external relationships

Internal: The appointed individual will report to the grant holder, Prof Jim Groombridge, as a member of his research group. In addition, they will engage where appropriate with other staff based within the Durrell Institute of Conservation and Ecology (DICE) and the wide School of Natural Sciences.

External: The appointed individual will work closely with a network of project partners in UK and internationally, including key partners at UEA, University of Copenhagen, the Mauritian Wildlife Foundation and the National Parks and Conservation Service in Mauritius.

Health, safety & wellbeing considerations

This job involves undertaking duties which include the following health, safety and wellbeing considerations:

- Regular use of Screen Display Equipment
- Repetitive limb movements
- Working with chemicals (inc. requirement to wear latex gloves and inc. work with CO₂ or N₂ gasses)
- Exposure to animals
- Pressure to meet important deadlines such as might be inherent in high profile projects
- Overseas travel is a requirement of the role

Person specification

The person specification details the necessary skills, qualifications, experience or other attributes needed to carry out the job. Applications will be measured against the criteria published below.

Selection panels will be looking for clear evidence and examples in an application, or cover letter (where applicable), which back-up any assertions made in relation to each criterion.

Essential Criteria:

- A PhD or equivalent in a natural sciences subject within the field of genomics and Artificial Intelligence/Deep learning (A)
- Strong bioinformatics expertise across a range of genomic applications (A)
- Specialist hands-on expertise in designing, building and using Deep Neural Network / Artificial Intelligence models to analyse genomic/bioinformatic data (A,I)
- Strong verbal and written communication skills, with the ability to convey complex information clearly to diverse audiences (I)
- Ability to show initiative and carry out research independently (I)

- Ability to build and maintain research collaborations with academic and external partners, including industry, policy, or community organisations (I)
- Commitment to research integrity, ethical practices, and adherence to governance and health and safety regulations (I)
- Firm commitment to achieving the University's vision and values, with a passion for multidisciplinary, impactful research (I)
- Commitment to delivering equality, diversity and inclusivity in the day-to-day work of the role (I)

Desirable Criteria:

- Extensive working knowledge of Artificial Intelligence / Deep Learning models and their application to genomic and associated datasets in environmental sciences (A, I)
- Experience of applying Artificial Intelligence / Deep Learning models in the context of population extinction risk (A, I)
- Strong track record of disseminating research through conferences, presentations, and external engagement activities (A,I)
- Ability to provide high-quality supervision and mentoring to postgraduate students and other researchers (I)

Assessment stage: A - Application; I - Interview; T - Test/presentation at interview stage