



University of  
St Andrews

School of Biology

Post-doctoral Research Fellow  
– AR3112LS





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# Introduction

Founded in the 15th century, St Andrews is Scotland's first university and the third oldest in the English-speaking world. The University of St Andrews is one of Europe's most research intensive seats of learning. It is one of the top-rated universities in Europe for research, teaching quality, and student satisfaction. Today, under the leadership of Principal and Vice-Chancellor Professor Dame Sally Mapstone FRSE, the University's strategy is to broaden its global influence, with a focus on diversity, building a culture of entrepreneurship, research excellence, and social responsibility.

The University of St Andrews is world-leading, with a responsibility to integrate sustainability within our University strategy. From climate science and sustainable development to energy ethics and grass-roots level action across all our communities in which we operate, sustainability is at the heart of all we do. World-leading research on sustainability is taking place across the breadth of the University with researchers addressing key questions on the defining issue of our generation.

St Andrews is ranked as the top university in the UK in The Guardian Guide 2024, and The Times and Sunday Times University Guide 2024. The Complete University Guide 2024 ranks St Andrews as the top university in Scotland, and fourth in the UK. The University is top in the UK for Teaching Quality in the Daily Mail Guide 2024.





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# The Scottish Oceans Institute

The Scottish Oceans Institute (SOI) (<http://soi.st-andrews.ac.uk/>), formed in 2009, represents a wider effort to promote the kind of interdisciplinary research that can thrive in a relatively small institution. It has brought together the marine infrastructure of St Andrews with more than 60 cognate principal investigators in the Schools of Biology, Chemistry, Geography & Sustainable Development, Earth and Environmental Sciences and Mathematics and Statistics. The SOI provides a focus for national and international leadership in marine biology. It hosts the Directorate of the Marine Alliance for Science & Technology Scotland (MASTS), a pooling initiative of the Scottish Higher Education Funding Council. To support its expansion in marine science, the University has invested more than £16 million in a new SOI building with a state-of-the-art aquarium and experimental facilities, which was officially opened by the Scottish First Minister in 2019. The advertised positions are strategic appointments to strengthen the expansion of our marine sciences.





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# The School of Biology

The School of Biology is the largest School in the University with over 60 principal investigators with a combined complement of 120 PhD students, 100 postdoctoral research fellows and 50 technical and administrative support staff. There are three Research Centre's within Biology: The Biomedical Sciences Research Centre (BSRC), the Centre for Biological Diversity (CBD), and the Scottish Oceans Institute (SOI). There is much overlap between the research carried out at the three Centre's as well as strong interdisciplinary links with other Schools in the University. The BSRC involves principal investigators from the Schools of Chemistry, Medicine and Physics in addition to Biology. The CBD works with PIs from the Schools of Psychology, Geography and Sustainable Development and Management, and the SOI includes PIs from the Schools of Geography & Sustainable Development, Earth and Environmental Sciences and Mathematics and Statistics.

The School prides itself on its research-led teaching, providing a broad curriculum to around 450 FTE undergraduates who now enter the University typically with straight A's at A-level or in Scottish Highers. All academic staff are expected to be involved in teaching, which is strongly supported by six dedicated teaching fellows. There are also around 40 taught MRes students, in our Masters programs in Marine Mammal Science, Marine Ecosystem Management and Animal Behaviour in addition to our postgraduate students in our research Masters and PhD programs.

The University of St Andrews School of Biology was awarded the Athena SWAN Gold award in 2021 for its sustained progression, achievement and beacon activity in advancing equality and representation. The School particularly welcomes applications from those suitably qualified from all genders, all races, ethnicities and nationalities, LGBT+, all or no religion, all social class backgrounds, and all family structures. The School values equality and diversity across its workforce and offers a family friendly and supportive environment in which flexible working is encouraged; we strive to hold important meetings/seminars within core hours of 09.15 to 14.45. In addition, a broad variety of measures are currently being introduced to ensure effective career progression for everyone and to eradicate the historical lack of diversity at higher professional levels.





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# Job Description

**Job Title: Post-doctoral Research Fellow**

**School: School of Biology**

**Reporting to: Lecturer in Marine Biology**

**Location: St Andrews**

**Job Family: Academic Research**

**Working Hours: 36.25**

**Grade/Salary Range: Grade 6 / £38,249 - £45,413 per annum**

**Reference Number: AR3112LS**

**Start Date: As soon as possible (must be prior to the 10 August 2025)**

**Interview Date: To be confirmed**

**Duration of post: 3 Years**



## Main Purpose of the Role

The employee will be the primary researcher on a BBSRC-funded project to investigate links between molluscan allorecognition and the evolution of bivalve transmissible cancers, led by Dr Carmel McDougall (University of St Andrews) and Dr Tim Regan (The Roslin Institute). They will plan and conduct research activities within the project to meet deadlines and deliverables in collaboration with the PI. This will include conducting tissue culture and in-vivo experiments in the mussel *Mytilus edulis*, in addition to other bivalve species, to investigate recognition responses. Responses will be assessed through cell-based assays, transcriptomics, and quantitative PCR. The project will also have a significant bioinformatic component to evaluate differential gene expression within experiments and to identify candidate allorecognition genes within molluscan genomes. In addition, the appointee will help to write scientific papers and present results at scientific conferences, assist with supervision of undergraduate and postgraduate students, contribute to laboratory management, and participate in outreach activities



# Key Responsibilities

1. Plan and conduct own research activities within the project to meet deadlines and deliverables. This includes:
  - i. In-vitro and in-vivo analyses of allorecognition responses in several bivalve species, including histology and immunohistochemistry
  - ii. Analysis of gene expression during allorecognition responses via transcriptomics and quantitative PCR
  - iii. Bioinformatic analyses to identify candidate allorecognition genes in bivalves by searching transcriptomes and genomes for genes that contain hallmarks of allorecognition genes found in other species.
2. Understand and convey material of a specialist or highly technical nature to the team and, where applicable, the funding body/sponsor through presentations, discussions and progress reports.
3. Write up research work for publication in peer-reviewed journals (as principal or co-author).
4. Write and present research papers (and, where applicable, posters) at conferences, seminars and workshops.
5. Engage in networking activities to make internal and external contacts, to develop knowledge and to form relationships for future research collaboration.
6. Participation in outreach via press releases, social media, blogs and talks at public events.
7. Develop specialist knowledge in the research area to deal with problems affecting the achievement of research objectives and deadlines, devising solutions to unexpected challenges in collaboration with the PI.



## Key Responsibilities

8. Read the relevant literature and keep up to date with developments in the field.
9. Plan and manage own administrative activities.
10. Proactively engage with other members of the research group and engage with the research environment within the School.
11. Supervise and provide support and guidance to research team members and assigned project student(s) as appropriate.
12. Assist with laboratory management.
13. Use initiative and creativity to identify areas for research, develop new research methods and extend the research portfolio.
14. Ensure compliance with all legal and regulatory requirements including equality and diversity, data protection, copyright and licensing, security, financial, health and safety and other University policies, procedures and codes as appropriate.

### Special Requirements:

The employee will be expected to travel to the Roslin Institute from time to time for meetings and to conduct experiments. Other national/international travel and short periods away from St Andrews may also be required (e.g., for conference attendance). Occasional evening or weekend working may be required in order to run time sensitive experiments.

*Please note that this job description is not exhaustive, and the role holder may be required to undertake other relevant duties commensurate with the grading of the post. Activities may be subject to amendment over time as the role develops and/or priorities and requirements evolve.*





# Person Specification

Attributes	Essential	Desirable	Means of Assessment (i.e. application form, interview, test, presentation etc.)
<p>Education &amp; Qualifications</p> <p><i>(technical, professional, academic qualifications and training required)</i></p>	<p>Good first degree in relevant subject</p> <p>Hold or be close to submission of PhD in relevant subject</p>		<p>Application/ Certificates</p>
<p>Experience &amp; Knowledge</p> <p><i>(examples of specific experience and knowledge sought)</i></p>	<p>Experience of applying relevant analytical skills, techniques and methods including:</p> <p>Bioinformatic analysis (particularly differential gene expression) and ability to design and conduct new bioinformatic workflows</p> <p>Molecular biology techniques (e.g. nucleic acid extraction, PCR)</p> <p>Developing research track record commensurate with stage in career</p>	<p>Knowledge of one or more of:</p> <p>Advanced molecular biology techniques (e.g. immunocytochemistry, quantitative PCR, adaptation of protocols to new systems)</p> <p>Cellular biology experience (e.g. Cell culture)</p> <p>Experience in working with non-model organisms</p> <p>Marine fieldwork/aquarium culture of marine invertebrates</p>	<p>Application/ Interview/ Presentation</p>



# Person Specification

Attributes	Essential	Desirable	Means of Assessment (i.e. application form, interview, test, presentation etc.)
<p>Experience &amp; Knowledge</p> <p><i>(examples of specific experience and knowledge sought)</i></p>		<p>Demonstrate clear potential for high quality research publications</p> <p>Credible plans for the active pursuit of external research funding</p> <p>Project management experience</p> <p>Experience of organising activities for scholarly or public audiences</p>	<p>Application/ Interview/ Presentation</p>
<p>Competencies &amp; Skills</p> <p><i>(e.g. effective communication skills, initiative, flexibility, leadership etc)</i></p>	<p>Effective communicator (orally and in writing)</p> <p>Well developed presentation skills including ability to communicate complex, theoretical and technical material in an engaging and intelligible way to a range of audiences including non-specialists</p>	<p>Impact and engagement evidence of disseminating research to constituencies beyond the academic community</p>	<p>Application/ Interview</p> <p>Interview/ Presentation</p>



# Person Specification

Attributes	Essential	Desirable	Means of Assessment (i.e. application form, interview, test, presentation etc.)
<p>Competencies &amp; Skills</p> <p>(e.g. <i>effective communication skills, initiative, flexibility, leadership etc</i>)</p>	<p>Collegiality/ willingness to work in a collaborative environment</p> <p>Ability to work autonomously and to be proactive in identifying and resolving issues</p> <p>Administrative and IT skills appropriate for the efficient and effective delivery of research</p> <p>Well developed time management skills with the ability to meet deadlines</p>		<p>Interview/ References</p> <p>Interview/ References</p> <p>Application</p> <p>Interview/ References</p>
<p>Other Attributes/Abilities</p> <p>(if applicable)</p>	<p>Evidence of keeping up to date with new developments in relevant knowledge and techniques</p>	<p>Evidence of participation in relevant academic and professional associations/bodies and external research networks</p> <p>Some knowledge of issues and challenges facing universities in attaining research</p>	<p>Application/ Interview</p>



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## Benefits

In addition to the salary on offer for this position, there are a wide range of benefits for staff working at the University of St Andrews. The package for the Post- doctoral research fellow includes:

- Grade 6 £38,249 - £45,413 per annum
- Membership of the USS Pension Scheme with a generous employer contribution of 14.5%
- A hybrid working environment, including partial homeworking where appropriate and a range of family friendly policies
- Staff discount scheme for local and national goods and services
- Free staff parking, employee Carshare and Cycle to Work Schemes and subsidised local bus travel
- Subsidised sports membership, reduced tuition fees on degree programmes for staff, access to training and development opportunities including LinkedIn Learning, access to library facilities, salary sacrifice scheme
- A range of wellbeing initiatives including membership of Peppy, a health application that connects staff to expert practitioners and personalized support on health matters
- 34 Days Annual Leave plus 5 Public Holidays





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# How to Apply

We encourage applicants to apply online at [www.vacancies.st-andrews.ac.uk/welcome.aspx](http://www.vacancies.st-andrews.ac.uk/welcome.aspx)

If you have difficulties in completing the online application form, please call +44 (0)1334 461990 or contact [vacancies@st-andrews.ac.uk](mailto:vacancies@st-andrews.ac.uk) for an application pack.

Applications should consist

- Letter of application describing how you fulfil the person specification
- CV
- Names and contacts of three referees

For all applications, please quote ref: AR3112LS

The University of St Andrews is a charity registered in Scotland (No SC013532).





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# Equality, Diversity & Inclusion

Equality, diversity and inclusion are at the heart of the St Andrews experience and form a central pillar of the University Strategy. We strive to create a fair and inclusive culture demonstrated through our commitment to diversity awards (Athena Swan, Carer Positive, Race Charters). We celebrate diversity by promoting profiles of BAME, LGBTIQ+ Disabled and Neurodiverse staff and supporting networks including the Staff BAME Network; Staff with Disabilities or Neurodiversity Network; Staff LGBTIQ+ Network; and the Staff Parents & Carers Network. Full details available online: <https://www.st-andrews.ac.uk/hr/edi/>

The University encourages all interested candidates to apply regardless of nationality and all applications received are assessed against the essential and desirable criteria listed in the further particulars. The successful candidate will have to demonstrate their right to work in the UK prior to commencing employment and where required, obtain the right to work in the UK without relying on University sponsorship. Information on other visa options is available at <https://www.gov.uk/check-uk-visa> or by contacting our HR Immigration Team on [hrimmigration@st-andrews.ac.uk](mailto:hrimmigration@st-andrews.ac.uk).

The University of St Andrews has also received a prestigious institutional Silver Athena Swan Award in recognition of its continued efforts to advance gender equality across the University (building on our Bronze awards of 2012 and 2017)





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# Further Information

**This post is fixed term as it is subject to external funding**

The University encourages all interested candidates to apply regardless of nationality and all applications received are assessed against the essential and desirable criteria listed in the further particulars. The successful candidate will have to demonstrate their right to work in the UK prior to commencing employment and where required, obtain the right to work in the UK without relying on University sponsorship.





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# The Town of St Andrews

A modern location surrounded with ancient History, St Andrews is a dynamic and cosmopolitan town found on the east coast of Scotland. Situated in the Kingdom of Fife, St Andrews has easy links to nearby commuter towns and transport links (including airports) to the nearby cities of Dundee (13 miles) and Edinburgh (c. 1 hour by train).

St Andrews and the surrounding area is home to a wide range of restaurants and shops, while boasting an array of beautiful beaches. St Andrews is also the home of golf and there are seven local courses including the famous Old Course.

The Kingdom of Fife is an area filled history and culture. There are nearly 5,000 listed buildings and 50 conservation areas in Fife, with some historic structures dating all the way back to the 12th century. The part of Fife in which St Andrews is situated (known as the East Neuk), enjoys a microclimate and is typically much drier than western parts of the country.







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