



UCT-UEA Newton PhD Partnership on Understanding the Climate System and Coping with Climate Change

Research Exchange Visit Scheme

Call for Proposals

1. Background and context

The University of East Anglia (UEA) in the United Kingdom and the University of Cape Town (UCT) are pleased to announce an exciting new partnership scheme supporting PhD students conducting research in the areas of 'improving understanding of the climate system – including the ocean and atmosphere' and 'developing capacity to cope with climate change'. The scheme is jointly funded by the Research Councils UK (RCUK) and the National Research Foundation in South Africa (NRF) under the Newton Fund RCUK-NRF International PhD Partnering Scheme.

The Newton Fund is a new initiative intended to strengthen research and innovation partnerships between the UK and emerging knowledge economies. It forms part of the UK's Official Development Assistance (ODA) commitment which is monitored by the Organisation for Economic Cooperation and Development (OECD). The main objectives of the Newton Fund International PhD Partnering Call are to:

- Facilitate the development of sustainable institutional links between UK Research Organisations and emerging centres of research internationally
- Foster the development of an international cohort of researchers with the skills, links and contacts to operate in the global research environment
- Support the development of research capacity in identified research performing nations through the development of international training and development activities
- Learn from different approaches in partner countries and access facilities, communities and environments of interest/benefit to the student research programme
- Encourage and foster the development of intellectual and joint training networks to foster long-term sustainable research collaboration addressing issues of global concern and with a strong potential for international impact
- Establish the UK as a long-term partner of choice internationally, in particular with the new research performing nations.

2. The UEA-UCT partnership: Research Exchange Visit Scheme

The partnership aims to develop sustainable, strategic links between UEA and UCT in two key areas:

i) improving **understanding of the climate system, particularly climate variability on seasonal to decadal time scales through research on atmospheric and ocean processes.** Through the exchange, PhD students from both countries will conduct field work using ships and autonomous systems in the Southern and Indian Oceans, develop models, and acquire new data and knowledge necessary to constrain climate variability and its drivers, including the global ocean carbon cycle. Students will have the opportunity to engage with global research programmes, for example the UEA-led annual release of the Global Carbon Budget (<http://www.globalcarbonproject.org/carbonbudget/>).

ii) **developing capacity to deal with climate change through identifying and quantifying climate change risks, impact and adaptation options.** Students will apply an existing integrated assessment model to South Africa, to assess the implications of climate change for water and food availability and test adaptation options. The links between changing climate and human health will be explored, such as the availability and quality of drinking water. The wider impacts on the South African economy will be explored through the development of a 'disaster footprint analysis' currently being applied in China. We will assess the regional implications of changes in stock size and geographic range of marine species for fisheries and conservation.

The scheme welcomes exchanges also in other climate change related topics, including energy and mitigation.

The primary partnering activity will be a series of annual PhD research exchange visits from 2016 to 2019 between UCT and UEA. For each of these three years the scheme will sponsor 3 or 4 PhD students from both UEA and UCT to spend a short period of their study (usually 3-6 months) in the partner institution, conducting research that will promote future South African well-being interest as part of their PhD project, and undertaking training in career-enhancing multi-disciplinary scientific skills. Where possible, students will visit in cohorts to facilitate integration.

There is also funding available for one faculty or senior research staff member trip each way per year.

3. Funding

Costs covered by the scheme

The scheme will cover the cost of a return flight, visas, travel insurance, bench fees, and a stipend to cover accommodation and living costs. For UCT students travelling to the UK the stipend will be £1,273 per month, and for UEA students travelling to UCT the stipend will be R10,000 per month. Stipends are guaranteed for the minimum 3 months placement. For longer placements, additional funding will be discussed on a case-by-case basis based on total available funds

Please note that it is expected that the research undertaken during your placement will form part of your PhD. If you are in receipt of a stipend you will therefore continue to be paid during the placement. Your funding period will **not** be extended.

Costs not covered by the scheme

Participating students are strongly advised to take out medical insurance, but will need to meet the cost of this themselves, together with any other incidental expenses incurred during their stay.

4. Duration and timing of placement

The placement will normally last between 3 and 6 months. If you wish to apply for a placement longer than 3 months, you will need to provide a justification in your proposal (see How to Apply section below). Where possible, students will visit in cohorts to facilitate integration.

For the 2016-2017 cohorts: UCT registered students are encouraged to plan for placements to coincide with the Tyndall Assembly, scheduled for the week of September 11 2017 (3 days), location to be confirmed.

UEA and UCT offer a range of activities and training courses, which are summarized in Table 1. Students are invited to discuss relevant activities with their host supervisor.

Table 1. Overview of the activities offered to the PhD students over the academic year.

Activities at UEA	S	O	N	D	J	F	M	A	M	J	J	A
EnvEast Induction (3 days)		X										
EnvEast Winter (3 days) /Summer schools (5 days)				X							X	
EnvEast Science conference and showcase								X				
DEV Climate & Development Short Course (12-16 June)										X		
Ocean Glider Advanced Training Course						X						
Tyndall Centre Assembly (3 days, week of Sept. 11)	X											
ENV and Tyndall Centre weekly seminars	Every Monday (biogeochemistry), Wed. (climate mitigation & adaptation), Friday (physical climate)											
Tyndall Centre 'Not for Experts' courses	Once a month on an interdisciplinary topic											

Activities at UCT	S	O	N	D	J	F	M	A	M	J	J	A
ACDI postgraduate student orientation						X						
Career planning, writing, research and publishing support workshops (Postgraduate Studies Dept)	Ongoing throughout the academic year											
CSAG winter school 2017										X		
EGS Postgraduate Colloquium	TBC											
IAMAS – IAPSO international conference	27 August – 01 September 2017											
Marine Research Annual Forum	TBC											
Seminars and symposiums through ACDI, EGS, Mar-Re, Oceanography and CSAG	Ongoing throughout the academic year.											
Adaptation Futures 2017	TBC											

5. Expectations

PhD researchers taking part in the exchange, and their supervisors, are kindly requested to assist for the duration of the project, by:

- Facilitating the stay of incoming PhD researchers and creating a positive atmosphere of exchange
- Supporting activities, such as webinars and training programs
- Helping to identify synergies among projects, and thus helping to create long-term collaborations
- Providing a short report (1-2 pages) describing the research progress they have made during their placement, the meetings they have held, and the activities they have attended during their placement. The report should be sent to a.kirk@uea.ac.uk within two months of returning from their placement.

6. Assessment

Applications will be assessed by a Steering Committee formed of UEA and UCT academic researchers working in the relevant areas. Applications will be assessed according to the following criteria:

- The extent to which the research to be undertaken falls within the two strategic areas identified by the Partnership (Understanding the Climate System, and Developing Capacity to Deal with Climate Change)
- The extent to which the proposed research to be undertaken during the placement will benefit the student and her/his PhD project
- The quality and clarity of the application and the extent to which the research to be undertaken is realizable within the given timescale
- The extent to which the placement will contribute to the wider strategic aims of the Newton Fund scheme in terms of fostering long-term sustainable collaboration.

7. How to apply

1) check your eligibility

The scheme is open to any PhD student registered either at UEA or UCT who is conducting research in a relevant discipline area which fits with the strategic aims above. The placement can take place at any time during the period of study, provided that it has the support of the applicant's supervisory team.

For UEA-registered students only: you must have been *eligible* to have received RCUK funding when you registered for your PhD, but you do not have to *be* RCUK funded. This means that you must have been able to meet the residency requirements required by RCUK, and be undertaking research within the remit of the Natural Environment Research Council (NERC). Please see <http://www.rcuk.ac.uk/funding/grantstcs/>

2) arrange your placement

Students are expected to arrange the placements themselves, supported as necessary by their supervisor(s). The placements must be directly linked to your research topic and must take place within the original funded period of your studentship. So the first step is for you to make contact with a research host at the partner institution to discuss the possibility of a placement. Please bear in mind the strategic long-term aspiration of this partnership when making contacts. A list of academic staff at UEA and UCT already involved with the

Partnership is attached at Annex A. You could contact one of them about the possibility of a placement, but you can also approach others working in a relevant field.

3) complete the application form

The application form can be found **here**:

www.tyndall.ac.uk/uct-uea-newton-phd-partnership

You will need to provide a short proposal in support of your application, detailing areas such as the research to be undertaken during the visit, training you will access, and how the placement will benefit your research. Please see the application form itself for further guidance on what you need to include.

Your application must be supported by your supervisor and by the person who will be supervising you at the partner institution. You will therefore need to forward the relevant sections of the application form to them for completion.

4) Application deadline and notification of outcome

Once your application is completed, signed and dated and you have the statements of support from the supervisors, you should return the form either by email or in hard copy to:

UCT applications:

Leigh Cobban

African Climate & Development Initiative

leigh.cobban@uct.ac.za

UEA applications:

Alfie Kirk (attn. Corinne Le Quéré)

Tyndall Centre for Climate Change Research

University of East Anglia, NR4 7TJ

a.kirk@uea.ac.uk

Application deadlines: 1st December 2016 and 1st May 2017. We will let you know the outcome of your application within one month of receipt of application.

Academic staff at UCT and UEA involved with the Partnership.

Table 1. Departments and partners involved:

UEA	Expertise
Prof Corinne Le Quéré (co-PI, TYN)	Carbon cycle, climate change. Global modelling.
Dr Rachel Warren (TYN)	Climate change impacts, mitigation & adaptation.
Prof Phil Jones (CRU)	Instrumental temperature & rainfall measurements.
Prof Karen Heywood (co-I, ENV)	Ocean's role in climate; ocean glider applications.
Prof Adrian Matthews (ENV)	Ocean-atmosphere interaction, gliders, modelling.
Prof Jan Kaiser (ENV)	Biogeochemical processes; isotope geochemistry
Dr Andrew Manning (ENV)	Marine & terrestrial carbon cycle; gas measurement.
Dr Dorothee Bakker (ENV)	Marine carbon cycle, biogeochemical cycles
Dr Iain Lake (ENV)	Weather & climate effects on human health.
Prof Paul Hunter (MED)	Epidemiology of emerging infectious disease.
Prof Dabo Guan (DEV)	Disaster footprint analysis and economic recovery.
Dr Clare Goodess (CRU)	Regional climate projections; vulnerability, adaptation
UCT	Expertise
Prof Mark New (co-PI, ACIDI Dir)	Climate change scenarios, impacts and adaptation.
Prof Bruce Hewitson (CSAG Dir)	Climate change modelling, downscaling; ethics.
Prof Chris Reason (Head Oceanogr)	Climate variability & change; oceans; modelling
Dr Gina Ziervogel (EGS)	Adaptation to climate change; vulnerable groups.
Dr Lynne Shannon (Ma-Re)	Ecosystem approaches for fisheries management.
Prof Pedro Monteiro (UCT/CSIR)	Changing ocean biogeochemistry; oxygen/carbon.
Prof Howard Waldron (Oceanogr)	Physico-biological oceanography; Carbon; nutrients.
Prof Isabelle Ansoorge (Oceanogr)	Ocean observations; sea training of postgraduates.
Prof Marcello Vichi (Oceanography)	Climate change impacts on marine ecosystems.
Dr Sarah Fawcett (Oceanography)	Ocean productivity and the nitrogen cycle.
Dr Babatunde Abiodun (EGS/CSAG)	Climatology/climate modelling; atmospheric science.
Dr Laura Blamey (Ma-Re)	Drivers of ecosystem change; impacts on fisheries.
Dr Deena Pillay (Ma-Re)	Anthropogenic effects on estuarine systems.

Note that all other academic staff beyond the list below are eligible as long as they are affiliated with UEA and UCT.

For other relevant academic people working at UEA, see below and elsewhere on the UEA web site:

<https://www.uea.ac.uk/environmental-sciences>

<https://www.uea.ac.uk/international-development>

For other relevant academic people working at UCT, see below and elsewhere on the UCT web site:

<http://www.acdi.uct.ac.za/>

<http://www.sea.uct.ac.za/sea-academic-staff>