



Postdoctoral Research Fellowship in Biological Oceanography and Marine Biogeochemistry

Introduction

The University of Cape Town (UCT) invites applications for a Postdoctoral Research Fellowship in biological oceanography and marine biogeochemistry in partnership with the Southern Ocean Carbon-Climate Observatory (SOCCO), a research programme at the Council for Scientific and Industrial Research (CSIR).

SOCCO investigates the role of the ocean in the global carbon cycle and its response to climate change, combining field observations, experimental research, autonomous platforms, satellite remote sensing and modelling. The successful candidate will join a multidisciplinary research team investigating the sensitivity of the ocean biological carbon pump to environmental variability and climate change, with a particular focus on the Southern Ocean.

Call for Applications

The fellowship forms part of SOCCO's research theme, *Understanding the Sensitivity of the Ocean Biological Carbon Pump with Links to Climate Change*. The research aims to improve our understanding of the biological processes controlling ocean primary production, carbon export and the transfer of carbon into the ocean interior.

The successful candidate will contribute to experimental and observational research, with an emphasis on ship-based investigations of phytoplankton physiology, primary production and carbon cycling. The position will provide opportunities to participate in Southern Ocean research cruises, including upcoming Antarctic InSync campaigns, and to develop research aligned with SOCCO's broader objectives.

The specific research focus will be developed in consultation with the successful candidate, drawing on their expertise and interests and the priorities of the wider research programme.

Key Responsibilities

- Plan and conduct ship-based experiments, incubations and sample analysis to investigate phytoplankton community composition, photophysiology, primary production and the environmental controls on biological carbon cycling.
- Participate in Southern Ocean field campaigns, including sample collection, experimental work and biogeochemical measurements at sea.
- Analyse and interpret experimental and observational data to investigate the drivers of primary production, phytoplankton community responses and carbon export.
- Integrate experimental results with relevant ship-based, autonomous and satellite observations, where appropriate.
- Publish research findings in peer-reviewed scientific journals and present results at scientific meetings.
- Supervise a Master's student and provide scientific leadership and mentorship to

the SOCCO BGC team during sea-going campaigns, facilitating training, knowledge-sharing and the development of early-career researchers.

Key Requirements

- A PhD in biological oceanography, marine biogeochemistry, oceanography, marine biology or a closely related discipline.
- Practical experience in field-based experimental marine research, with a willingness and ability to participate in extended research cruises and conduct experimental work at sea.
- Experience in the analysis and interpretation of biogeochemical data.
- Strong scientific writing, communication and collaborative skills.

Desirable additional skills and experience

- Experience with primary production measurements, nutrient limitation experiments, trace metals, phytoplankton physiology or carbon export measurements.
- Experience with particle aggregation experiments, biological pump processes or mesopelagic carbon cycling.
- Programming and data analysis skills, preferably in Python.
- Familiarity with bio-optical measurements, ocean-colour remote sensing, autonomous platforms or biogeochemical modelling.

The ideal candidate will be a practical, motivated and independent researcher who enjoys working at sea, is comfortable undertaking hands-on experimental work, and is keen to contribute to a collaborative research programme. The ability to adapt to evolving research priorities and work across different aspects of biogeochemical oceanography will be an advantage.

Funding and Duration

The value of the Fellowship award is **R500,000** per year for 24 months (2 years) with no additional benefits. Postdoctoral Research Fellowships are non-taxable, meaning fellowships must be granted without fringe benefits.

The successful candidate will be based at the CSIR in Rosebank, Cape Town, South Africa, and will work under the leadership of Dr Sandy Thomalla within SOCCO's biological carbon pump research theme. The position will involve collaboration with national and international research partners.

To apply:

Send an email application to Angie Coetzee (Angie.Coetzee@uct.ac.za) with the subject "MARIS Postdoctoral Fellowship" and attach the following documents:

1. Cover letter describing research experience, interests, and collaborative experience
2. Academic curriculum vitae with list of publications and conference presentations included
3. Certified transcripts of academic qualifications at the tertiary level
4. Contact details for 2 people willing to write reference letters

*Compliance with the University's official DEFINITION, specifically that the prospective Postdoctoral Fellow has achieved her/his PhD within five years of enrollment, and on condition that the Prospective Postdoctoral Fellow has not held comprehensive professional or permanent academic positions.

Closing date for applications: 30 Nov 2026

For further information, please contact Sandy Thomalla
(sandy.thomalla@gmail.com)

The University of Cape Town reserves the right to disqualify ineligible, incomplete and/or inappropriate application. The University of Cape Town reserves the right to change the conditions of award or to make no awards at all. The successful incumbent must be prepared to comply with the University's approved policies, procedures and practices for the postdoctoral sector.