

*You Choose* Application  
UM SEEDS

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## Abstract

Travel funds are sought for Lisa Beal to lead a workshop in Kiel, Germany, to bring together the diverse international community of scientists who conduct research in the Southwest Indian Ocean. Recently, this community has recognized the need to better organize and collaborate in order to spotlight the role of the Southwest Indian Ocean in local and global climate and to promote participation of the region in the Global Ocean Observing System. As an international expert on the Agulhas Current system, Lisa Beal was recognized as someone who could lead this effort. This is an unprecedented opportunity for her to take a leadership role and gain international standing.

## Goals of the International Workshop

Planning and implementation of a Global Ocean Observing System (GOOS), an absolute necessity for us to better record changes of the climate system related to global warming, is well underway, however there are no planned monitoring efforts in the Southwest Indian Ocean, as part of GOOS. This is owing, in large part, to its geographic position adjacent to African countries with few scientific resources. Yet this oceanic region is not only important to local African weather and climate, but also to global climate through significant and variable fluxes of heat and salt into the Atlantic via leakage from the Agulhas Current. Using paleo-climate modeling, this leakage has been found to have such significance as to be implicated in the global transition from glacial to inter-glacial climate.

The purpose of a Southwest Indian Ocean community workshop is twofold. First, for researchers to share their results and collaborate over future plans. Second, to discuss and write a SCOR proposal (Scientific Committee on Oceanic Research, <http://www.jhu.edu/scor/WGs.htm>) to support a Southwest Indian Ocean Working Group, with the goal to: “Build a comprehensive observational program of the Agulhas Current system and surrounds, complemented by seasonal to multi-decadal simulation experiments, to better understand its role in Indian Ocean climate and the Atlantic Meridional Overturning Circulation.” If the SCOR proposal is successful, up to ten scientists will be supported to meet regularly over the next few years in order to achieve the above goal. And there will be opportunity to seek further funds, from IAPSO (International Association for the Physical Sciences of the Oceans) for example, to support the attendance of the larger Southwest Indian Ocean community, in particular students and East African scientists, at future workshops.

Kiel has been established as the best choice of location for the workshop, given that the majority of the scientific community is based in western Europe, and a significant number are from South Africa.

## Opportunity for Career Advancement

This SEEDS *You Choose* award would give Lisa Beal the “start-up” support necessary to be able to organize, attend, and lead the workshop in Kiel. Ultimately, this is an opportunity for her to spearhead the international effort to advance the scientific understanding of the regional dynamics and climate feedbacks of the Southwest Indian Ocean.

This is a unique opportunity for Lisa to prove leadership qualities and build a strong international reputation. Moreover, she will have the chance to network with international colleagues, leading to the possibility of ideas and collaborations for the development of high calibre scientific proposals in the future. In particular, Lisa is currently developing an NSF project to monitor the transport of the Agulhas Current off South Africa. Although the project is endorsed by the International Climate Variability Indian Ocean Panel, it is expensive, and stronger ties and collaborations with international scientists and resources would lead to better leverage for a successful proposal. In addition, a chance to network with African scientists would help identify areas where collaborations could lead to capacity building in their home countries. For instance, with student exchange programs, participation and training on research cruises etc.

In short, a relatively small amount of support from SEEDS would result in a big impact for the career advancement of Lisa Beal, who is a minority in physical oceanography. And may lead to beneficial collaborations and resource sharing with other minority scientists in developing countries.

## Budget and Budget Justification

\$2,500 of travel support from *You Choose* is sought for Lisa Beal to attend the workshop in Kiel. This sum will cover international and connecting flights from Miami to Hamburg (~\$1000), taxi and coach fares (\$130), six nights accommodation (\$850), and per diem (\$100/day). Matching funds will be provided through the RSMAS Dean’s office for a UM student to accompany Lisa to the workshop.