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Press Release

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Survival Artists in the Antarctic

Researchers study the ways in which moss can survive in hostile environments

In order to improve our understanding of the impact climate change has on plant life in the Antarctic, the Rector of the University of Freiburg/Germany, Prof. Dr. **Hans-Jochen Schiewer**, and the President of the Korea Polar Research Institute KOPRI, Dr. **Ho-Il Yoon**, have just signed a co-operation agreement on moss research. Biologists Prof. Dr. **Ralf Reski** from the University of Freiburg/Germany and Dr. **Hyoungseok Lee** from the Korea Polar Research Institute KOPRI/South Korea will join forces to decipher the genome of an Antarctic strain of the moss *Sanionia uncinata* and compare it to the genome of the model moss *Physcomitrella patens*, which cannot grow in Antarctica. The project will be funded by KOPRI's "Polar Genomes 101 Project". "We are excited about this new opportunity and expect new insights into plant adaptation to harsh environmental conditions," says Reski.

Best known for its penguins, Antarctica is also home to about 100 moss species, which form the dominant plant life on this continent with its freezing temperatures, poor soil quality, lack of moisture and little sunlight. So far it is not known how plants can survive such harsh conditions and how man-made global warming will affect plant life in the Antarctic. "We will search for as yet unknown signalling mechanisms in the moss that have evolved over millions of years to make life in remote and hostile places possible."

Ralf Reski holds the Chair of Plant Biotechnology at the Faculty of Biology of the University of Freiburg/Germany. He is a founding principal investigator of

the Cluster of Excellence BIOSS Centre for Biological Signalling Studies and has developed the moss *Physcomitrella* from scratch to a model organism for basic biology and plant biotechnology over the last three decades.

www.plant-biotech.net

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