

University of Bern's new "Oeschger Centre for Climate Change Research"

MARTIN GROSJEAN¹, T. STOCKER² AND H. WANNER¹

¹NCCR Climate, University of Bern, Switzerland, grosjean@giub.unibe.ch; ²Physics Institute, University of Bern, Switzerland

The University of Bern, Switzerland is pleased to announce the opening of the "Oeschger Centre for Climate Change Research". This Centre aspires to be the leading Swiss institution in research on past global changes and to foster a multidisciplinary approach to the understanding of climate change and its consequences for the environment and society. Rather than having a formal physical location, the Centre is "virtual", gathering together researchers from nine institutes in three faculties, as well as supporting the Graduate School of Climate Sciences.

A special focus on climate science is nothing new for the University of Bern. Already in the 19th century renowned pioneers such as Rudolf Wolf (1816–1893, sun-spot numbers), Heinrich Wild (1833–1902, standards for meteorological measurements) and Eduard Brueckner (1862–1927, Ice Age theory) made significant contributions in the fields of meteorology and climatology. Today, different groups work at the forefront of IGBP-PAGES-related research, mainly in climate reconstructions and long-term dynamics. Among others, recent contributions include reconstructions of European temperature variability since AD 1500 (Luterbacher et al., 2004) and the greenhouse gas (GHG) records of the EPICA Antarctic ice core (e.g., Siegenthaler et al., 2005).

The Centre is named after Hans Oeschger (1927–1998), who was a professor of Climate and Environmental Physics at the University of Bern and one of the 'fathers' of PAGES. Among other major achievements, he built the "Oeschger Counter" to measure ¹⁴C with very low backgrounds and was the first to date the "age" of Pacific deep water. He pioneered the application of modern physics to investigate the Earth and the global climate system with its interactive components, and was a leader in ice-core research and promoter of the deep-drilling projects in Greenland. Together with colleagues, Oeschger also documented a series of abrupt climate changes in the past, the "Dansgaard-Oeschger events", which became prime symbols for the non-linear nature of climate change.

Oeschger's successors at the University of Bern are convinced of the potential of paleoclimatology. A main focus of the new Centre is the study of natural and docu-

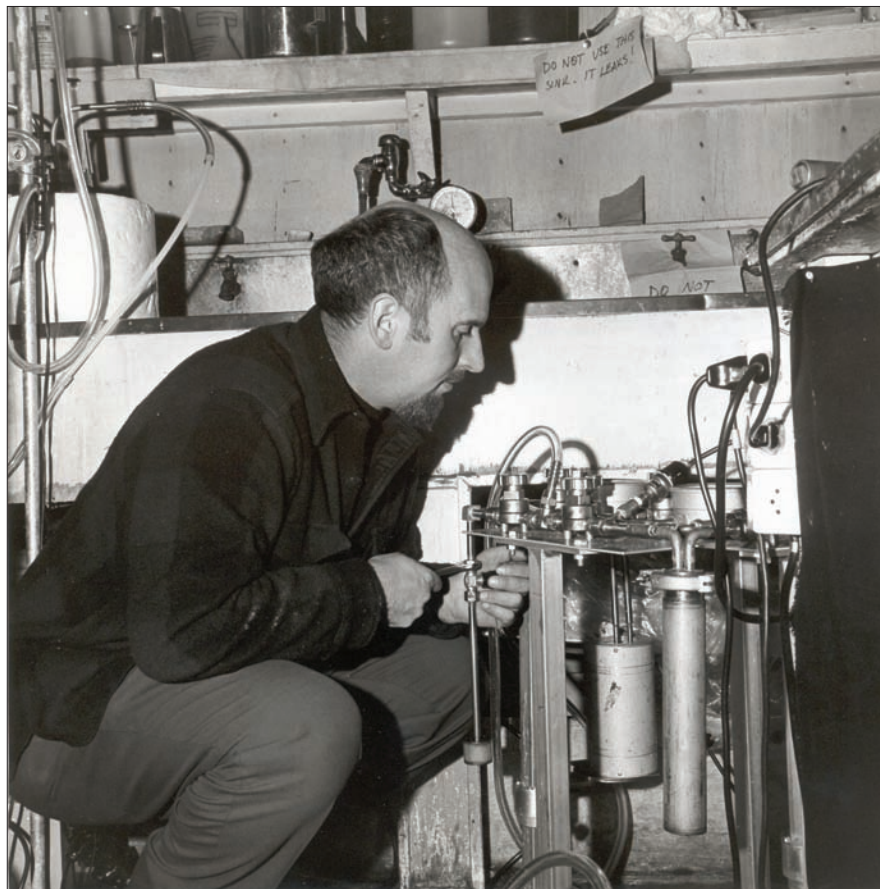


Figure 1: Hans Oeschger at Byrd Station, Antarctica, in 1968 (official U.S. Navy photograph).

mentary climate archives and regional multi-proxy climate reconstructions. This includes the investigation of ice cores from polar and alpine areas, sediments from high-elevation lakes, speleothems, tree rings, glacial dynamics, vegetation history and phenology, as well as documentary data (e.g., PAGES News, 2002, 10(3)).

In collaboration with many colleagues from other parts of the World, the different sources of information are integrated into comprehensive high-resolution climate reconstructions for the past 500–1000 years. These studies contribute to the LOTRED (Long-term climate reconstruction and diagnosis) initiatives for Europe and South America (PAGES News, 2006, 14(3): 26), a collaborative study under the umbrella of PAGES.

Among the Oeschger Centre's key activities are also observational and modeling studies of the dynamics of climate, ocean circulation and GHGs (CO₂ and methane) in the past, present and future. In addition, the Centre plays a leading role in the international assessment of climate change and impacts. Finally, the new Cen-

tre aims to bridge the gap between the natural sciences and the human dimension of climate change, notably land use and land cover changes and related feedbacks to the atmosphere. This includes impact studies on natural and managed ecosystems, as well as on the relationship between climate and society.

References

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