

Effective Scientific Communication

Science is not about facts but the communication of facts; Results do not speak for themselves but require an argument. Effective communication is of crucial importance for a successful career and yet it is something we usually not prepared for and which we have to continue practicing throughout our career.

In this course you will learn to get your message across in scientific publications, conference posters, for grant proposals, on your web-page and through oral presentations. The technique taught in this course is simple and effective at the same time, exploiting a pattern that is commonly employed by successful communicators.

The course will help graduate and PhD students and researchers to present their work to an international audience efficiently and professionally. Using a range of examples, you will learn to analyse scientific publications for their composition, the structure of an argument, and the use of English. We will also pay attention to the specific challenges of participants that are non-native speakers of the English language.

The concept is particularly well suited for researchers and students in the engineering, biomedical, biological, medical and physical sciences and is offered in three formats: (i) a one-hour seminar, covering the basic technique and five-fold structure of scientific communication. (ii) a one-day seminar, including case studies and (iii) a two-day seminar, including exercises.

Your Coach

Professor Olaf Wolkenhauer (www.sbi.uni-rostock.de), worked for ten years in England as a lecturer and researcher, before coming in 2003 to the University of Rostock, where he since is head of the Systems Biology & Bioinformatics Department at the Institute of Computer Science. Following a degree in electrical engineering and a PhD from the University of Manchester, Institute of Science and Technology in Manchester, Olaf Wolkenhauer was also a lecturer in the Department of Biomolecular Sciences. Between 2003 and 2006 he was a guest professor in the Department of Mathematics at the University of Manchester and he is an adjunct professor at the Department of Computer Science and Electrical Engineering at Case Western Reserve University in Cleveland, USA since 2004. In 2005 elected as fellow of the Stellenbosch Institute for Advanced Study (STIAS). Olaf Wolkenhauer is the author of numerous journal publications, is regularly working as a reviewer for a large number of journals, and has published three books with Wiley and Springer, New York. He is the founder of the journal *IET Systems Biology*.



Training Elements

- The role of scientific communication.
- The goal for the paper; how to start writing.
- The five-fold structure of scientific talks, papers, posters, presentations and meetings.
- Choosing a journal.
- Structuring the manuscript.
- Structuring the abstract and main text.
- Responding to reviews.
- Tips for Equations, Figures and Tables, References in the text.
- US vs. UK English.
- Commas, word order, and hedging.
- Positive and active sentences.
- Examples for clarity and brevity.
- Writing a cover letter.
- Practical examples and strategies for active learning.
- Advice and Internet links for further help.

What you can expect

Successful participation of this course makes you a more effective scientist by enabling you to communicate your work and results more effectively. Specifically, this is possible

- by learning a technique to analyse scientific publications and a strategy to learn to improve your skills beyond the seminar.
- by recognising structures and linguistic elements common to a range of forms of scientific communication.

The course is to provide you not only with practical advice but will also teach you a strategy to continue improving your communication skills throughout your career. Participants of the course will be provided with selected slides from the seminar in PDF Format, including tips and links to further material and resources on the Internet.

Note: The seminar requires a beamer to connect with a laptop. The projection should be as large as possible and with high resolution. The course participants should sit not too far away from the screen. For this reason the number of participants should be limited to about 20.

Exercises

For the one and two-day seminar format you will be expected to prepare a description of a project. It does not matter whether this is the abstract to a publication you are currently. The text should be strictly limited to a maximum of 250 words (about 1/2 page). The course will give you the opportunity to improve the text throughout the course. For the two-day seminar it is strongly recommended that you keep the afternoon or evening of the first day free to prepare one piece of homework.

Contact

For further information, the costs and booking of the course, please contact Olaf Wolkenhauer via Email: olaf.wolkenhauer@uni-rostock.de, or call: +49 (0)171 741 0 731.