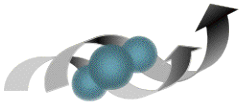

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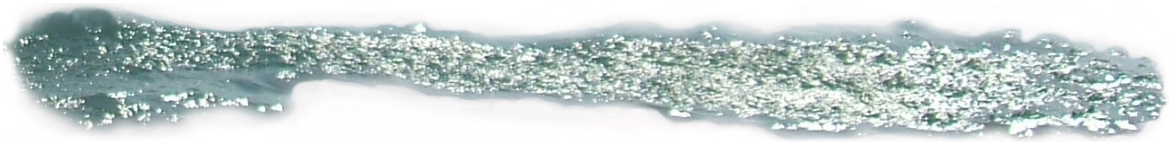

# Scientific Soft Skills Workshops



**www.bioxpress.de**

# Introduction

## Workshop training concept

Workshops provide an interactive learning environment for “learning by doing”, which stimulates participants to generate their own ideas and solutions, while effectively integrating the concepts and skills being taught.

Workshops are generally agreed to be more effective for acquiring knowledge than less interactive courses or PowerPoint seminars and reading instruction manuals or books. Participants generate their own pace and focus; informal feedback creates an effective learning climate.

Bioxpress workshops incorporate the participants’ own material, address their specific concerns, and enable them to assimilate the information in their own way to solve their own problems.

Individual workshops focus on the main skills that scientists need to successfully pursue their careers: **scientific writing, poster presentations and oral presentations**, particularly for international meetings.

All workshops are in English, focussing on optimal presentation of scientific information in English, led by a native speaker with many years of lab research plus scientific editorial, writing and training experience.

## Target groups

Workshops are designed for small groups of researchers in life sciences and molecular medicine.

**Early PhDs:**
With little or no scientific writing or presentation experience, and those writing PhD project proposals.

**Senior PhDs:**
Who will be writing PhD theses and intend to write papers, attend meetings and conferences, or write grant proposals for funding.

**Postdoc researchers, group leaders:**
Who are already writing papers, attending meetings and conferences, or writing grant proposals for funding.

The focus of a workshop is always tailored to suit the needs of individual target groups, adapted for those with little or no writing experience, to those with more experience writing papers and attending meetings. With the latter groups the focus is on getting their own work published, or included at conferences, so we concentrate on more intensive hands-on work on their own manuscripts or abstracts.

Workshops are best suited for small groups (8 to maximum 12 participants) over 2 to 3 days, depending on the workshop module and aims of the group.

## Workshop modules

Workshop modules are usually 2 – 3 days and booked individually, e.g. Poster Presentations, followed by Effective Scientific Writing later, to allow the participants to master the material before moving on to another topic. However, different modules can be booked in tandem or combined in fast-track workshops.

## Fast-track workshops

Designed originally for medics, but perhaps of interest to groups that require less comprehensive training, or have limited out-of-lab time for longer training: These workshops cover all three topics of **scientific writing, poster presentations and oral presentations**, in intensive 3 to 4-day workshops, depending on the target group.

## Workshop material

Each participant receives a copy of the relevant Soft Skills Workshop handout containing detailed descriptions and examples of the material covered in the workshop, plus worksheets designed to provide practice in the organizational, structural and language skills being presented.

In addition to the material supplied by the trainer, hands-on practice focuses on material supplied by the participants:

- a recently published paper from the institute, or a paper in progress, an abstract for a meeting, a figure and its legend, etc.;
- a poster already prepared or in preparation for a meeting;
- a mini 5-minute oral presentation with PowerPoint slides on the participant's project.

Please note that due to copyright regulations applying to research institutes, the authors, or the publishing journals, the organizer and/or participants of the workshop should supply the original published or unpublished scientific material.

**Certificate of participation:**
Each participant receives a certificate of participation after the workshop.

## Advice for organizers

It is important that everyone in the group can relate to the material supplied, to be able to apply the skills learned to their own writing or presentation and in their future research career.

For optimal participant benefit the group should be as homogenous as possible in terms of experience, field of research, and English language competency. It is important to address the needs of all the participants most of the time, and avoid the pace being too fast or too slow for some.

It is therefore essential to organize a target group comprising participants in the same general field with about the same level of writing or presentation experience, and indicate these when booking a workshop. This will ensure that the workshop is individualized to suit the target group.

**English fluency:**
Although designed for non-native English speakers, fluency in English is no guarantee of good writing or presentation style and skills.

# Effective Scientific Writing Workshops: Manuscripts

Writing papers is a challenge for all young researchers, but particularly for non-native English speakers. Moreover, clear, well-structured, concise scientific writing is essential to getting published, regardless of your previous experience or language fluency.

This workshop is not only designed to help young scientists organize and get started with writing, such as finding out where to place information within the structure a scientific paper, but also how to present information to “sell” the research theme and results obtained in the best way possible.

To optimize confidence with writing in English, we look at key factors such as verb use, tenses and agreement, punctuation and word order to produce clear and concise writing.

To create flow and logic we practice using transitions to add and link information. How to use paragraph and sentence structures to add emphasis and highlight key messages is another important aspect of writing that we explore.

Revision is the secret of all good writing, so we practice integrating all the factors contributing to effective scientific writing by editing texts either obtained from your department or provided by the participants themselves.

Hands-on participation, feedback and interactive discussion help the participants apply these skills to their own writing.

## Manuscript writing workshop topics

Getting started – what you need for a paper

Organizing material – to create the optimum story

Structure of a research paper – where to locate questions, gaps, aims and solutions

Title and Abstract — attracting readers and selling your message

Purpose of the Introduction and Discussion — posing questions, providing answers

Presenting and discussing results — logic sequence and positioning key information

Figures, graphs and tables — optimally presenting your data

Paragraph structures – to highlight key messages

Sentence structures – for logic and readability

Punctuation and word positioning – for clarity and emphasis

Verbs (tenses, strong, precise, active) – to drive meaningful sentences

Conjunctions and transitions – to create flow and links

Editing and revision – to produce clear, concise, well-structured scientific texts

Submitting or re-submitting a paper — cover letters and dealing with editors' and referees' comments

# Effective Scientific Writing Workshops: Proposals

**Writing proposals for fellowships and grants to acquire personal funding**

Guidelines to submitting specific proposals, the steps, requirements and procedures, can be found on the relevant websites of funding bodies. But you still have to write the proposal – the very best proposal possible.

This workshop is designed to help young researchers (late PhD, early postdocs) write their first proposal to continue their career as an independent scientist.

We deal with the content planning and general structuring of a proposal. As we move on to writing we consider how to address vital points, such as what the reviewers want to see (and where), how to sell your science and yourself as an outstanding candidate, and how to precisely address different required sections.

Ideally participants will have already taken part in a scientific writing for manuscripts workshop to optimally apply the acquired skills for concise, precise writing and targeted revision.

Alternatively both scientific writing workshops can be combined.

## Proposal writing workshop topics

Getting started, considering the options

Brainstorming, gathering information

Eligibility, skills, competence and resources

How to sell your science; how to sell yourself

Host institution, important people

Choosing a topic: what is your storyline?

Elements of an effective project proposal: what reviewers want to see (and where)

Structure and layout: highlighting and locating information

Writing tips and tools to produce clear, concise, strong writing

Generating specific aims, then goals, hypotheses and gaps

The experimental approach: your competence, host lab advantages

Feasibility, potential pitfalls, alternative plans

Stressing innovation, significance and impacts

Hands-on writing and revision: working on participants' own texts

# Oral Presentation Workshops

An essential skill for all scientists is being able to prepare and deliver an effective oral presentation, whether for departmental seminars or at international conferences. Although most scientists welcome the chance to present their work at meetings, the prospect may make them nervous, particularly if English is not their native language.

In fact, almost all presenters face similar problems of too much data, poor visual aids, lack of general organization, and the common mistakes of too much time spent on preparing slides and too little spent on practicing.

This workshop is designed to help young scientists optimally prepare, organize and design their talks. After an introductory session and time for preparation, each participant gives a short talk, which can be videoed if we plan this beforehand. This is followed by feedback from all participants.

Together we assess your talk overall, clarity and presentation of the information on the slides, clarity of the scientific content (key message), delivery style and body language. We also have a question and answer session to practice dealing professionally with feedback from a scientific audience.

If we have recorded the talks, we can watch them again from the new perspective of the knowledge gained during the workshop.

This workshop should help you better plan talks in the future, with all the essential elements of design, structure, anticipation, and practice to ensure you can present a talk with confidence.

## Oral presentation workshop topics

Planning and structuring you talk: To help the audience understand, appreciate and remember you and your results!

Plan the content and structure before designing the slides!

Designing effective slides — to be informative yet visually attractive and clear

Clearly explaining your slides — to focus the audience on the key points

Preparing good transitions between slides — to tell a logical story

Signalling language — to alert the audience to new topics or the conclusion

Avoiding language errors and pronunciation problems — for easy understanding

Body language and presenting skills — to generate rapport and appear professional

Anticipating potential problems — to remain calm no matter what

Practicing giving a talk — presenting with confidence

Practicing Question and Answer sessions — to leave a good last impression

# Poster Presentation Workshops

The opportunity to present your work as a poster at a meeting is an excellent introduction to interacting at international conferences. However, most scientists are not really aware, or do not know how to optimally design a visually effective poster that sells their key message.

A second aspect often overlooked is that the poster is only half the story; presenting the poster at a meeting is an essential element of promoting your research and yourself as an international scientist. Poster presentations allow you to interact one-on-one with people interested in your work, to establish contacts, and to hold interesting discussions about your work and the work of others.

In an introductory session, we discuss elements that highlight your key findings, such as where to place important information, how to make key points attract attention, planning attention getters, designing graphics, titles and subtitles, optimizing language and style, for example using lists and bullet points, and making the most of a poster session

The poster presentation workshop then focuses on the design and content of the participants' own posters. Participants can bring along a full-sized version to hang on the wall, if available, and all bring along printed A4 copies in colour. We discuss and provide feedback about each poster. If time allows (1.5-day workshop) participants have the chance to edit and reorganize their poster and present the revised version to the group (printed out on A4 paper).

### Poster presentation workshop topics

Deciding on content — keep to the key message

Essential elements — Abstract? Introduction? Outlook? Summary? Future aims?

Creating effective visuals elements — clear, uncluttered and easy to understand

Creating and positioning effective titles, sub-titles, figure titles — key information

Deciding on structure — optimizing layout

Language style — be concise, precise and interesting

List and bullet point structures — parallel grammatical constructions

Being there — tips for presenting your poster and establishing contacts

Interacting with the interested visitor — answering questions and conducting discussions

Extra material — contact information, printouts, data stick?

# Workshop Trainer

Dr. Avril Arthur-Goettig combines her background in scientific research and many years of organizing scientific data, publishing papers, supervising graduate students, with subsequently working as a freelance scientific editor, writer, and translator. She established a freelance scientific writing and communication service in 1996, and has been training scientists in scientific communications since 2007.

Avril was born in Scotland and graduated from Edinburgh University with a BSc (honours) in molecular biology. She gained a PhD in molecular genetics from Sussex University, UK, and obtained a 2-year MRC postdoctoral fellowship at Glasgow University, UK. After 3 months as a visiting scientist at Dalhousie University, Halifax, Nova Scotia, Canada, she joined the Department of Biochemistry at the LMU Munich, Germany, as a postdoc, moving on after being awarded a BMBF grant to the Munich Gene Center as a joint project leader.

Since 1996 she has helped scores of scientists from research institutes, biotech startups, biotech/pharmaceutical companies, international non-profit organizations, as well as media, and clinical agencies, all over Germany and Europe, with optimizing their scientific texts.

## Soft skills in writing and presentation

Experience gained from her own research career (publishing papers, preparing and presenting posters and talks), and subsequently working as a freelancer editing and revising papers, answering referees comments, and translating scientific texts, has provided her with in-depth knowledge about the different aspects of written scientific communication, particularly the needs of non-English speaking scientists.

She has now transferred these insights into training programs to provide soft skills in writing and presentation that are required for successful graduate programs.

Avril also specializes in highly interactive workshops for more experienced **graduate students, postdocs and group leaders,** to help them maximize their English communication and writing skills to get published in high impact journals.

Workshops are individually designed to meet the needs of the participant group. Please contact us for more information.

Dr. Avril Arthur-Goettig is located in Munich, Germany, and Gioi-Cilento (SA) Italy.