

PRBB Intervals Course Proposal

1. **Course Title:** Introduction to effective biomedical writing
2. **Proposed date(s):** May 10, 13, 17, 20, and 27 and June 3
3. **Course Language :** English
4. **Course Leader(s) and very brief summary of relevant qualifications and experience (no more than 2 lines for each trainer):**

Valerie Matarese is an authors' editor and trainer of scientific writing with ~25 years' experience supporting biomedical researchers mostly in Italy. She studied biochemistry–molecular biology in the United States and has published original research both in biomedical science and on writing for publication.
5. **General description of the course (relevance and context for the PRBB)**

Publication of a research article is an integral part of the research process. Just as high-quality research depends on valid protocols and disciplinary standards, so too does the effective writing of research papers.
6. **Course Aim**

This course sets the foundation for writing and publishing research articles in the biomedical sciences. It gives an overview of biomedical research journals, IMRaD article structure, and readers' expectations of the text, and it presents broad strategies for writing the articles and accompanying cover letters and for revising after peer review. The course aims to demystify these processes, by illustrating the range of techniques and strategies that skilled writers use.
7. **Learning objectives (what new skills, knowledge &/or attitudes will participants go away from the course with?)**

During the course, participants will:

 - Become familiar with the characteristics and qualities of research journals in the biomedical sciences
 - Learn how to separate content into the main sections of an IMRaD article and ensure cohesion among the sections
 - Understand the difference between writer-based and reader-friendly writing, and appreciate the need to address readers' expectations
 - Learn basic strategies for planning, drafting and revising a research article and revising again after peer review
 - Review the use of verb tenses in different IMRaD sections
 - Learn how to structure sentences, paragraphs and sections for optimal readability and a forward flow of information
 - Develop and apply a technique for writing a paragraph to describe a table or figure
 - Acquire basic skills of good citation practice

8. **Training methods** : Synchronous distance education, alternating between short lectures and in-class online exercises.
9. **Target group in PRBB (Senior scientists, postdocs, predocs, management/admin staff, all residents)**
PhD students
10. **Number of participants (maximum)**
15
11. **Total course hours (Please specify: a) direct training with instructor present b) required self-study.**
Note: only the direct training hours will be included in the post-course certificate.
Total: 14 hours
Class time: 12 hours (six sessions of 2 hours each)
Self-study: ~2 hours (optional)
12. **Distribution of course (hours/days):** Six 2-hour sessions over 4 weeks.
13. **Course programme (outline of topics to be covered)**

Day 1. The biomedical research literature

- Characteristics and qualities of biomedical research journals
- IMRaD structure – a guide to reading and writing

Day 2. Writing strategies

- Pre-writing – planning the structure and scope of a research article
- Resources for writing (reporting guidelines, instructions to authors, nomenclatures)
- The writing process

Day 3. Optimal sentences, paragraphs and sections

- Verb tenses in different IMRaD sections
- Preferred sentence structures for scientific texts
- Paragraphs – the basic building block of text
- Efficient use of sections (sub-IMRaD) and how to write section headings

Day 4. Good citation practice

- Reasons for citation in research articles
- Placement of citations in text, and writing text to accompany citations
- Quotation with citations
- Implication of poor citation practice

Day 5. Writing about tables and figures

- Learn a method for writing a paragraph that highlights key features of a table or figure, to facilitate readers' interaction with the display
- Apply the method in class for a sample table and figure

- Learn to write effective figure legends and table titles

Day 6. Submission and peer review

- Self-revision of a manuscript before submission
- Cover letters
- Types of peer review and outcomes
- Post-peer review revision
- Rebuttal letters and point-by-point responses

14. *Pre-course preparation (what preparation should participants do before the course – reading, online study, prepare ideas etc?)*

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15. *Material participants need to bring (laptops, etc...)*

One or two open-access research articles of interest

16. *Relevant background reading/ audiovisual/websites or other materials*

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