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科学コミュニケーションの基礎と実践(薬・ 英) B-E3 Theory and Practice in Scientific Writing and Discussion (Pharmaceutical Sciences, English)B-E3								属名	薬学研究科 特定准教授 Martin Robert						
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# [授業の概要・目的]

The ability to effectively communicate science in English is an essential skill for students and aspiring young researchers, whether it is for a lab report, preparing an abstract and/or poster or an oral presentation for a conference, a journal club, a thesis, or a full research article. Failure to produce a good narrative results in lost opportunities for both the writer and the reader. Developing skills in both written and oral forms of communication is therefore important to successfully progress in science.

This course will aim to improve student confidence in communicating science in English. Opportunities will be provided to learn and practice the basics of effective scientific writing and communication in English. Emphasis will be placed on learning the basic structures and logic of different forms of scientific communication and practicing through the analysis of scientific material and writing. Practical exercises to develop those skills, will include among others, preparing a good title and abstract, analyzing scientific text, and presenting science news and a full research article (journal club presentation) and their evaluation. Many exercises will be completed in small groups. The course will be targeted to non-native speakers of English.

### [到達目標]

This main objective of this course is to learn and practice skills for communicating scientific content effectively in English. The emphasis will be on structuring and organizing content, data and figures, and their interpretation to build a coherent narrative. Tips and tricks about writing and presenting as well as patterns to avoid will also be presented.

At the end of this course students will:

- Understand and be able to explain the basic structure and format of different forms of scientific communications
- Master key conventions and structures essential for effective scientific communication
- Have gained skills in organizing concepts and ideas into a coherent narrative, using the appropriate words, units, logic, etc.
- Be able to produce clear short text and make an oral presentation of a research article following the formal scientific style of writing and presenting
- Have acquired confidence and practiced critical evaluation skills by reviewing and providing constructive feedback about their peers' work.

### [授業計画と内容]

The following topics will be covered over the course of 15 classes, not necessarily in that order:

Week 1 Course guidance and introduction

Week 2 Introduction to communication

### 科学コミュニケーションの基礎と実践(薬・英) B**-E3(2)**

Week 3 Finding and managing scientific literature and resources (databases and reference management software)

Week 4 Crafting a good title

Week 5 Analyzing and preparing a good abstract

Week 6 The basics of scientific writing. Structure and logic

Week 7 How to write different parts of a manuscript or report

Week 8 Tips for reading and understanding scientific content

Week 9 Making good figures and visuals and describing them well

Weeks 10-14 Research article presentations - Critical thinking and evaluation

Week 16 Feedback

## [履修要件]

Access to a personal computer or device is required to complete homework assignments and other practice.

## [成績評価の方法・観点]

20 % Class attendance and active participation

60 % In-class exercises/quizzes and homework assignments

20 % Presentation

### [教科書]

Lebrun, J.-L. Scientific Writing 2.0: A Reader And Writer's Guide (World Scientific Publishing Company, 2011)

Glasman-Deal, H. Science Research Writing: A Guide for Non-native Speakers of English. (Imperial College Press, 2010)

The books above will be used for part of course but students are not required to buy them. Kyoto University Library has some digital license for the Lebrun and Glasman-Deal books.

# [参考書等]

### (参考書)

Hofmann, A. Writing in the Biological Sciences: A Comprehensive Resource for Scientific Communication. (Oxford University Press, 2015)

Another useful resource:

English communication for scientists is listed below.

#### (関連URL)

https://www.nature.com/scitable/ebooks/cntNm-14053993/contents/

## [授業外学修(予習・復習)等]

Students can expect to spend on average about 1-2 hours per week on homework assignments and preparation for in-class exercises.

### [その他(オフィスアワー等)]

Some of the content is subject to change according to the class size.

The instructor can be contacted by e-mail to arrange an appointment.