

PhD Journal Club “Method and Logic in Biology” 2019

- Syllabus -

Venue

MPI for Biology of Ageing, Joseph-Stelzmann Str. 9 b, 50931 Cologne, seminar room 1, ground floor

Time

Kick of meeting: Tuesday, 09:30 am - 11:30 pm

Journal Clubs: Thursday, 12:30 - 2:15 pm

Dates and Chaperones

Kick-off Meeting on Ageing Review Publications:

08.10.2017: Dr. Sebastian Grönke

Journal Clubs:

- 1) 17.10 2019: Dr. David Vilchez
- 2) 07.11.2019: Dr. Peter Tessarz
- 3) 13.11.2019: Dr. Anna Sieben
(Wednesday!)
- 4) 21.11.2019: Dr. Martin Denzel
- 5) 28.11.2019: Dr. Natalia Kononenko
- 6) 12.12.2019: Dr. Lena Pernas
- 7) 09.01.2020: Dr. Roman-Ulrich Müller
- 8) 16.01.2020: Dr. Henning Fenselau

Course Description

Each journal club session will be taught by a faculty member. One current or classic paper with strong relevance in the field of ageing research will be discussed per session. You will receive all publications in advance in order to have sufficient time for preparation. For each paper, one student will be in charge of outlining the major hypothesis and summarizing the results, concluding statements and posing future directions (15 min). All other students will be responsible for describing, but most importantly for critically analyzing 1 - 2 figures per paper (~5 min). After the presentations, the respective paper will be extensively discussed (~20 min) by the group and the chaperone will give feedback to the whole group on their performance. Individual performance will be evaluated by the chaperones and the feedback will be handed out to the students at a later stage.

Course Objective

The journal club aims to teach you critical thinking skills. Moreover, it provides an overview of current literature and classical publications. You are strongly encouraged to actively participate. PIs should strongly emphasize the use of questions as a rhetorical and narrative device that drives the science. Therefore, you should present the depicted hypotheses being tested as questions, the content of each figure should first be posed as a question. PIs are expected to play an active role in challenge the students and raising critical points that they might have been missed.

Guidelines for presenting a paper

- What is the overall hypothesis being tested in the paper?
- What approach did the authors use to address the hypothesis?
- What is the result and why is it important?
- Are new research questions raised by the work in the paper?
- Are there alternatives? Limitations of each approach?
- What are the major findings?
- Did you see patterns or trends in the data that the author did not mention?
- Are the conclusions drawn from the results justified?
- Are there appropriate controls?
- Are there other factors that could have influenced the results?
- Were the hypotheses adequately tested?
- If you were to continue this research what would you do next and how?