

# The Magazine

October 2022

## Introduction

Hello PiBM network members!

The semester is now hitting its mid-way point and hopefully everyone is finding their stride. This edition of the newsletter is short in comparison to some of the previous ones, but it nevertheless brings some really interesting news concerning several fellowships, conferences, publications, and more. It is great to see so many activities being organized and collaborations developing from them.

Enjoy!

# Fellowships!

<u>3 Postdoc Fellowships at the KLI in Vienna - "Evolutionary Theory in Interdisciplinary Context"</u>

Evolutionary arguments and theories are often mobilized in other disciplines as well as in different societal contexts and discourses. These translations are challenging and require interdisciplinary and theoretical engagement at the intersection of evolutionary biology and other scientific or scholarly fields. In order to foster this engagement, the KLI is seeking 3 postdoc fellows conducting interdisciplinary evolutionary research with a focus on theoretical approaches, including conceptual, mathematical, and historical analyses.

We encourage applications from research fields such as evolutionary medicine, including evolutionary epidemiology in public health; evolutionary ecology and conservation biology; evolutionary neuroscience and psychology; and biocultural evolution. Projects may also comprise empirical work carried out with partner institutions. Furthermore, we invite projects from ethics, philosophy, history and social studies of science that engage with the epistemological and ethical issues that emerge when using evolutionary arguments and theories in contexts and discourses outside of evolutionary biology.

(More details on next page)

## Fellowships! (cont.)

#### **Details of the fellowships:**

- <u>Duration</u>: KLI postdoc fellowships are awarded for a period of 12 months, renewable for additional 12 months upon positive assessment.
- <u>Starting date</u>: Fellowships must start within the calendar year of 2023. A start between September and December 2023 is encouraged.

The deadline is <u>December 15, 2022</u>. For more details, please visit: <u>https://kli.ac.at/content/en/the\_kli/open\_calls/view/12</u>

Please contact: Guido Caniglia (<u>guido.caniglia@kli.ac.at</u>) and Philipp Mitteröcker (<u>philipp.mitteroecker@univie.ac.at</u>).

#### 2 year Postdoc on Philosophy of Science in Minnesota

The Minnesota Center for Philosophy of Science (MCPS) in the College of Liberal Arts at the University of Minnesota invites applications for a full-time postdoctoral fellowship for a period of two years starting at the beginning of the 2023 academic year (late August 2023). The aim of this position is to support researchers within five years of their doctorate in alignment with and contributing toward the mission of the Minnesota Center for Philosophy of Science: to promote excellence in research and training in philosophy of science, related empirical studies of science, and science itself. This support is dedicated to a project in philosophy of science (broadly construed) that the applicant proposes.

Application deadline: <u>2 December 2022</u>. Applications must be submitted online (<u>application link</u>). For questions, please email: <u>mcps@umn.edu</u>

## **Conferences**

<u>Dynamic modeling and statistical inference in the life sciences: philosophical and practical perspectives - BCAM Basque Center for Applied Mathematics.</u> 23 - 25 November 2022.

(see next page for more on this interesting workshop!)

## **Conferences (cont.)**

Mathematical modeling of living systems brings together the exact and life sciences, borrowing from everything in between and dragging in several disciplines: mathematics, statistics and machine learning, physics, chemistry, complex systems, bioinformatics, experimental design, genomics, systems biology, molecular biology, as well as the interfaces between them.

This complex multidisciplinarity has several implications from the perspective of research programs and training of scientists: it is usually impossible to fit the science into a well-defined field with experts trained in of its aspects. This observation begs the philosophical question: How to go about studying highly complex systems at a multidimensional interface of fields?

Website: http://www.bcamath.org/en/courses/2022-11-23-bcam-course

Registration is free, but mandatory before 18 November 2022.

#### Workshop at Bordeaux: Challenges of Al in Biology and Medicine

Al techniques have led to spectacular advances in many different fields, such as image recognition, language processing, and chess. In the scientific context, the most recent example is the success of the Al system "AlphaFold" in predicting the folded structure of proteins based on their amino acid sequence. In medicine, Al-based methods promise to revolutionize diagnosis and decision-making for treatments and drugs. With these promises come many concerns about these methods, such as their validation, reliability, or accountability. Philosophy could be of help in addressing these issues, in which epistemological questions often intermingle with ethical concerns.

This workshop brings together scientists and philosophers to discuss the challenges of introducing AI into biology and medicine. In particular, we will discuss whether and how a philosophical perspective can be helpful in addressing these challenges.

For the full program, please visit: <a href="https://www.philinbiomed.org/event/workshop-challenges-of-ai-in-biology-and-medicine/">https://www.philinbiomed.org/event/workshop-challenges-of-ai-in-biology-and-medicine/</a>

## **Conferences (cont.)**

Third Philosophy in Biology and Medicine (PhillnBioMed) Network Meeting

The teams at Bordeaux and Pittsburgh are excited about this in-person meeting on November 13 and 14, 2022. The event will immediately follow the conclusion of the Philosophy of Science Association (PSA) Meeting in Pittsburgh (November 10-13, 2022).

This year's plenary speaker Jerome Wakefield (School of Medicine, New York University, USA) will talk about: "The Loss of Sadness and the Pathologization of Grief: Challenges at the Intersection of Conceptual Analysis and Psychiatric Epidemiology".

There are also several invited 'duets', pairing philosophers and scientists, to illustrate the collaborative nature of doing philosophy in biology and medicine.

For the full program and list of excellent speakers, please visit the website: <a href="https://www.philinbiomed.org/event/third-philinbiomed-meeting/">https://www.philinbiomed.org/event/third-philinbiomed-meeting/</a>

#### **Other Announcements**

The University of Bordeaux is open to any and all BA students with an interest in coming to beautiful Bordeaux to study in the new 2 year Philosophy in Biology and Medicine MA program.

In this Master, students will learn how to seriously deal with scientific problems as a philosopher of science. You will acquire a high level of competence: exceptional reading and writing skills that will allow you to publish both in philosophy and in science journals, and access to an exceptional network of people around the world. Already in the second year you will have written and hopefully published your first article with the help of a first year student and under the supervision of one of the lecturers. This will give you the best chance of getting an excellent PhD position.

While the program is primarily geared towards philosophy students, those students with a degree in another field need only provide documented interest in the field of philosophy in biology or medicine.

All interested students can <u>visit the website</u> and contact Maël Lemoine: <u>mael.</u> <u>lemoine@u-bordeaux.fr</u>

## **Publications**

Barwich, A-S. and Lloyd, E.A. (Open Access) (2022): "More than meets the AI: The possibilities and limits of machine learning in olfaction", *Frontiers of Neuroscience*: <a href="https://www.frontiersin.org/articles/10.3389/fnins.2022.981294/full">https://www.frontiersin.org/articles/10.3389/fnins.2022.981294/full</a>

Barwich, A-S. and Smith, B.C. (Open Access) (2022): "From Molecules to Perception: Philosophical Investigations of Smell", *Philosophy Compass*: <a href="https://compass.onlinelibrary.wiley.com/doi/10.1111/phc3.12883">https://compass.onlinelibrary.wiley.com/doi/10.1111/phc3.12883</a>

Daëron, M. (2022). "The immune system as a system of relations". *Frontiers in Immunology*. https://doi.org/10.3389/fimmu.2022.984678

Gilbert, S. F. and Hadfield, M. (2022). "Symbiosis of disciplines: How developmental biology can join conservation biologists in sustaining and restoring earth's biodiversity". *Development* 149: <a href="https://doi.org/10.1242/dev.199960">https://doi.org/10.1242/dev.199960</a>

Clarke, B and Gilbert, S. F. (2022). "Margulis, Autopoiesis, and Sympoiesis". In *Symbionts: Contemporary Artists and the Biosphere* (Caroline A. Jones, Natalie Bell, Selby Nimrod, eds.). MIT Press, Cambridge, MA.

Gilbert, S. F. (preprint). "Pseudo-embryology and personhood". Submitted, *Natural Sciences*. <a href="https://www.authorea.com/doi/full/10.22541/au.166597742.26436901/v1">https://www.authorea.com/doi/full/10.22541/au.166597742.26436901/v1</a>

Gilbert, S. F. (preprint). "Developmental biology as a science of dependent coorigination". Submitted, *Emory-Tibet Science Initiative*. <a href="https://philarchive.org/rec/GILDBA-3">https://philarchive.org/rec/GILDBA-3</a>

## **Parting words**

That concludes the announcements for this month's newsletter, but just to foreshadow some announcements to be further discussed in the next newsletter, there are some interesting developments at work in building the Bordeaux-Sydney research connections.

For now, if you are entering the fall, enjoy the autumnal colors while they last!