

PiBM Newsletter

October 2024

# Introduction

Hello PiBM network members	publication
· · · · · · · · · · · · · · · · · · ·	nts coming at the end of October, there is plenty to
shock you about the PiBM haj	openings. Various jobs and post-graduate positions
keep coming (deadlines comi	ng fast!), as do numerous events and workshops
around the world, and more pu	blications. Following on the heels of the most recent
PiBM workshop in Bielefeld (s	poiler alert: it exists!), we are happy to publish some
reflections from the workshop	participants on how to keep pushing the envelope
to improvenctionly the networ	k, but to dig deeper into the "philosophy in science"
methodology. And stay tuned	to the end for a quick note from a student studying
PiBM up close. So, grab your s	picech putanpk in dripks and bets clive in !say and do, but other spects of what scientists say and do that need to be taken more seriously.

# **Post-Graduate Positions**

# Funded PhD in Philosophy of Science, University of Geneva

The Department of Philosophy, University of Geneva, is seeking applications for a funded PhD position in philosophy of science. A high level of proficiency in French is a firm requirement, as candidates will be expected to teach undergraduate classes from the beginning.

For full consideration, applications should be sent by **<u>30 November 2024</u>**. For more information see: <u>https://www.unige.ch/lettres/philo/actualites/job-offers-postes-pourvoir</u>

and projects. But beyond that, scientists working on the same projects frequently have different approaches and even philosophical disagreements. Accordingly, even if one takes very seriously a commitment to starting from scientific practices, this cannot be definitive. There is sometimes no option for a philosopher other than

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# Post-Graduate Positions (cont.)

Two Postdocs at Manchester: New Methods for Systematic Review

The <u>Philosophy Department</u> at the University of Manchester is hiring two postdoctoral research associates to work on the UKRI-funded project, <u>Interdisciplinary Systematic Review: mechanistic evidence and epistemic justice</u>.

The positions are for two years, full-time, starting on 16th January 2025. The closing date for applications is <u>**4 November 2024</u>**.</u>

• One role requires expertise in *philosophy of scientific method and philosophy of causality*. <u>Apply here</u>.

• The other role requires expertise in *evidence review and research methods*. <u>Apply</u> <u>here</u>.

This is a great opportunity to work on a highly interdisciplinary project. The project seeks to develop new techniques for causal enquiry and to use these techniques to improve the way in which interventions are evaluated.

The philosophy department at Manchester has a vibrant and welcoming research community. Areas of strength include Engaged Philosophy (to which this project contributes), Mind & Language, Metaphysics, and History of Analytic Philosophy.

### Jobs

### **Tenured Position at Duke University**

The Department of Philosophy at Duke University in Durham, NC invites applications for a tenured position at the rank of associate or full professor in philosophy of mind, philosophy of cognitive science, or philosophy of neuroscience. Start date is flexible but could be as early as July 1, 2025.

Posted: October 3, <u>Deadline: November 19</u>, For further details and to apply, visit: <u>https://academicjobsonline.org/ajo/jobs/28533</u>

# Jobs (cont.)

### **Tenure-Track Philosophy of Science Position, University of Washington**

The Department of Philosophy at the University of Washington is looking to hire a tenure-track Assistant Professor with an area of specialization in philosophy of science. Applications are welcome from any subfield in philosophy of science. Please consider applying and/or sharing with your networks.

Here is the link to the full job posting with more information, including instructions about how to apply and contact information if you have any questions: <u>https://philjobs.org/job/show/27218</u>

#### The deadline for full consideration is November 1st (!).

Visiting Fellowships for 2025-26 - The Center for Philosophy of Science at the University of Pittsburgh

The Center for Philosophy of Science invites applications for visiting fellowships for the fall and/or spring term of the 2025-2026 academic year. These fellowships allow philosophers of science to work on their nominated research projects in a supportive academic environment. Ten fellowships are offered each year.

Eligibility:

I. Applicants must hold a doctoral degree, preferably in philosophy or history and philosophy of science, or have an established position in the philosophy of science community.

2. We particularly encourage applications from underrepresented groups.

Applications are <u>due by December 8th, 2024</u>, and must be submitted electronically on the University of Pittsburgh jobs portal. Apply here: <u>https://cfopitt.taleo.</u> <u>net/careersection/pitt\_faculty\_external/jobdetail.ftl?job=24007691&tz=GMT-04%3Aoo&tzname=America%2FNew\_York</u>

More information and the link to apply can also be found here: <u>https://www.</u> <u>centerphilsci.pitt.edu/programs/visiting-fellows/program-overview/</u>

## **Upcoming Conferences & Events**

### **Biology25 Satellite Event: Selfish Genetic Elements and Within-Organism** Conflicts

Biology25 is the largest conference of organismal biology in Switzerland, and the yearly joint meeting of the Swiss Zoological Society, the Swiss Botanical Society, and the Swiss Systematics Society. The main Biology25 conference will be held on **February 13-14**, **2025** at the University of Lausanne, while our Satellite Event will be held on **February 12**.

Our satellite event is a one-day symposium on selfish genetic elements and other withinorganism conflicts, from bacteria to mammals with experts ranging from empiricists to theoreticians and philosophers.

#### **Programme:**

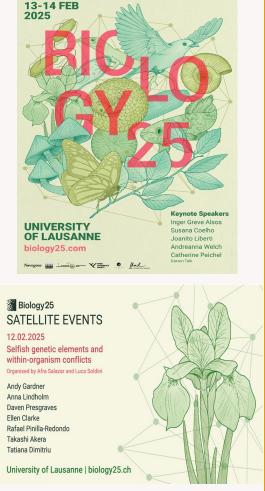
Genetic rebels in Eukaryotes:

Dave Preserves (University of Rochester, United States), Takashi Akera (NHLBI, United States), Anna Lindholm (University of Zurich, Switzerland)

Genetic rebels in Prokaryotes:

Tatiana Dimitriu (University of St. Andrews, United Kingdom), Rafael Pinilla-Redondo (University of Copenhagen)

Theoretical and philosophical insights:



Andy Gardner (University of St. Andrews, United Kingdom), Ellen Clarke (University of Leeds, United Kingdom)

Web page with further details: <u>https://wp.unil.ch/biology25/satellite-events/</u> Registration link: <u>https://wp.unil.ch/biology25/registration/</u>

# Upcoming Conferences & Events (cont.)

## Philosophy of Cog Sci Seminar, IHPST, Paris

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The Philosophy of Cognitive Sciences (PhilSciCog) seminar, launched in 2023, takes place one Thursday a month in the IHPST (Paris) conference room (hybrid format).

The aim of this general seminar is to provide an opportunity to involve researchers whose work is recognised within the cognitive science, neuroscience and philosophy of mind communities, in order to encourage the development of interdisciplinary exchanges within these fields. With this in mind, we leave it up to the guests to choose the topic of their presentation.

All information is available on the seminar web page: <u>https://www.neurophile.fr/</u> <u>en/philscicog</u>



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# **Upcoming Conferences & Events (cont.)**

<u>PiBM Seminars: Andreas Wagner (Zurich, Switzerland) - "Entangled Adaptive Landscapes Facilitate Exaptation"</u>

The talk will take place on **2I November** from **17 h oo - 18 h 30**, CET (Paris time), and it will be a hybrid event. Visit here for the details: <u>https://www.philinbiomed.</u> <u>org/event/andreas-wagner/</u>

Andreas Wagner is an Austrian/US evolutionary biologist and Professor at the Department of Evolutionary Biology and Environmental Studies, University of Zurich, Switzerland. His laboratory studies the evolution and function of biological complexity and diversity. It combines experimental and theoretical approaches to investigate genome evolution, gene regulation, and phenotypic plasticity. He is known for his work on the role of robustness and innovation in biological evolution.

#### Abstract

Exaptation, the co-option of existing traits for new functions, is central to Darwinian evolution. It has played a role in evolutionary innovations as different as the eye lens and antifreeze proteins. Exaptations typically require multiple small and poorly understood mutational steps. We usually do not know whether these steps are individually favored by natural selection, or whether other evolutionary forces are needed to preserve them. Here I address this question in the context of gene regulation, a process underlying evolutionary innovations that range from new bacterial stress responses to new animal body plans. Gene regulation is mediated by transcription factor binding sites (TFBSs), short DNA words near a gene to which proteins called transcription factor (TFs) bind, and from which they regulate gene expression. New forms of gene regulation require the evolution of new TFBSs, for example through exaptation of old TFBSs. I discuss a massively parallel experiment recently performed in my lab to investigate the potential of bacterial TFBSs to evolve exaptively for three Escherichia coli TFs. The experiment shows that starting from a strong TFBS for one of our TFs, Darwinian evolution could create a strong binding site for another TF through a small number of individually adaptive mutations. (cont...)

# **Upcoming Conferences & Events (cont.)**

Notably, most intermediate genotypes are prone to transcriptional crosstalk – gene regulation mediated by both TFs. Our study highlights the importance of regulatory crosstalk for the diversification of bacterial gene regulation.

Zoom link: <u>https://u-bordeaux-fr.zoom.us/j/86700325355?pwd=P4ygL1zCvom8Z27</u> <u>KChYYIUoejweAQ3.1</u>

# Publications

Nicoglou, A. (2024). *Plasticity in the Life Sciences*. The University of Chicago Press. <u>https://press.uchicago.edu/ucp/books/book/chicago/P/b0238329287.html</u>

Ross, L. (2024). *Explanation in Biology*. Cambridge University Press (Elements Series). The link for the <u>CUP site is here</u> and the current book draft is on <u>phil sci</u> <u>archive here</u>.

# Recent PiBM Events (For those who missed them)

The Genotype-Phenotype Map: Experimental and Theoretical Approaches

This was held at the <u>Centre for Philosophy of Sciences</u> at the University of Lisbon, on 17-18 October 2024.

The Genotype-Phenotype map is a conceptual and modeling tool that represents development in the context of evolution. Despite this central role in contemporary evolutionary research, the Genotype-Phenotype map has barely been addressed from a philosophical perspective. In order to promote a philosophy of evolution more aware of the putative centrality of this important research tool, this workshop gathered evolutionary biologists and philosophers interested in the notion.

(cont.)

# Recent PiBM Events (For those who missed them (cont.))

Invited speakers

Patrícia Beldade (cE3c, University of Lisbon)

James DiFrisco (The Francis Crick Institute, London)

Thomas Hansen (University of Oslo)

Lumila Menéndez (University of Bonn & University of Vienna)

Lisandro Milocco (Lund University)

Laura Nuño de la Rosa (Complutense University of Madrid)

João Picão Osório (cE3c, University of Lisbon)

Organization: CFCUL/RG2: Cristina Villegas, Davide Vecchi, Gil Santos

More info can be found here: <u>https://cfcul.ciencias.ulisboa.pt/reunioes/the-genotype-phenotype-map-experimental-and-theoretical-approaches</u>

Previous Talks in PhilInBioMed Seminar Series

Kate Lynch (Melbourne, Australia), (Human) Genetic Causal Reasoning

October 17th, 2024

Kate E. Lynch is a philosopher of science interested in causation, explanation, and causal reasoning in biology and medicine. Her work focusses on understanding the nature of causal relationships investigated by different research methods; and how causal claims are made and interpreted by scientists, practitioners, media, and the public. Her work has been featured on ABC News, Triple J, Radio National, and the LA Times, and was recently awarded the Australian Association of Philosophy Media Prize (2024).

The video of Kate Lynch's talk is now available on the PhilInBioMed website:

https://www.philinbiomed.org/event/kate-lynch/

# **Reports on Recent PiBM Events**

#### Fifth PiBM Meeting - University of Bielefeld (Germany)

As announced in previous newsletters, this year's PhilInBioMed meeting was held at the University of Bielefeld's delightful Institute of Advanced Study (ZiF) from 30 September to 2 October. From what could be gathered, it was yet again a very successful meeting of many like-minded philosophers of/in science. For more details on the meeting, you can visit: <u>https://www.philinbiomed.org/event/fifthphilinbiomed-meeting/</u>

One slightly novel exercise designed by the organizers was to split everyone into groups on the final day and gather some feedback about the PiBM network and the "philosophy in science" methodology. What came out of this is found below in the "action points" from four groups at different career stages. Interestingly, you can also see that despite our general like-mindedness, there was a nice amount of diversity of opinions about these topics. (Apologies in advance that it wasn't possible to include all the participants' names!)

#### Group 1: Early pre-doctoral students

The action points discussed by the group of early-stage researchers mainly focused on how to implement PinS more effectively in academic education and how to facilitate getting in contact with and working with scientists. As employability is a big concern for students and early career researchers alike, the group proposed to push for institutional recognition of PinS within academia (Point I - see below). Institutional forms of acknowledgments by establishing PinS as its own area of specialization in contrast to clustering it with the general philosophy of science might help to motivate students to focus on a PinS approach for their own research. This, however, requires a thorough reflection on the particularities of PinS.

To make the field more attractive to students and young researchers, we need a proper understanding of what distinguishes PinS from other subfields in the philosophy of science and on who can benefit from PinS (Point 3). (cont...)

As employability includes more layers than only the research itself, we also proposed teaching transferable skills to widen prospective careers inside academia and in the private sector (Point 2). Hence, skills such as grant proposal writing, science communication, and other translatable skills could be part of a PinS syllabus.

Another bottleneck of making PinS more visible is the connection to science and scientists. As PinS requires an insider's perspective on science and the scientific process, we proposed to provide scientific training for philosophers doing PinS and philosophical training for scientists interested in PinS (Point 5). It has been shown that quite a few scientists would be open to collaborating with philosophers but either did not know potential collaboration partners or did not see the possibility of making a collaborative project fruitful for their careers. Making PinS more accessible to scientists early on in their careers might help mitigate this bottleneck by funding and/or organizing networking events (Point 4). One might also reflect upon the different publishing styles in the fields and accommodate for those.

#### Point I: Pushing for institutional recognition of PinS within academia

This action point aims to suggest a push for philosophy departments to recognize PinS as a specialization that can be placed on a CV. Many of the students in our group were afraid that, when focusing on PinS as an area of study, their job applications would face greater competition from traditional practitioners of the philosophy of science. Considering that many of our projects and dissertations would be interdisciplinary and many of our publications would be in science journals, this could limit job prospects if potential competitors were less interdisciplinary and published more in philosophy journals. The idea of having PinS as its own area of specialization would perhaps remove such barriers on the job market and allow for an even playing field when applying for jobs listed as PinS jobs (or PinS focused) and not just philosophy of science. Therefore, having more professors and philosophy departments recognize that the PinS approach is distinct from the traditional philosophy of science benefits junior scholars.

(cont...)

# Point 2: Teaching translatable skills and widening the career focus of PinS outside of academia

The collective idea behind this action point is to suggest that when training students in PinS, skills such as grant proposal writing, science communication, and other translatable skills are focused on widening career prospects in both academia and the private sector. We think many of us forget that academia is not the only route to make contributions to science and that good science is also done within the private sector. Therefore, training students to be viable job candidates and making students aware of job prospects both within and outside the academy would go a long way for early career researchers doing philosophy in science.

#### Point 3: Justification of PinS approach

The question of why we need PinS is crucial not only for future practitioners of PinS but also for those outside the PinS community. We believe the justification for this approach can be made in several key areas: (a) Does PinS revive a neglected historical tradition, or is it a novel approach? (b) What are the essential differences between PinS and Philosophy of Science (PoS), particularly concerning the philosophy of specific scientific disciplines? (c) Considering Feynman's wellknown skepticism—his claim that philosophy of science is as useful to scientists as ornithology is to birds—can PinS offer a better justification for philosophical works? Finally, do scientists need PinS, and if not now, why might they in the future?

#### Point 4: Make philosophy more accessible for science

A study presented at the Network Meeting showed that one major reason for the lack of collaborations between philosophers and scientists was the divide between the fields: Many scientific practitioners would be open to collaborating or working with PinS scholars, but they either did not personally know a philosopher to ask or they did not know how to integrate PinS into their disciplinary research and publishing culture. One proposition was thus to make PinS more accessible for scientists by facilitating early- to mid-career networking through organizing and/ or providing travel grants for designated events (workshops, conferences, but also teaching courses). (cont...)

Furthermore, new publishing approaches could help promote PinS for scientists: Whereas philosophers traditionally are trained to write and publish as single authors, scientists almost always write and publish collaboratively. Hence, it might be useful to cultivate forms of co-authorship in the context of philosophical education or early-career stages to make potential collaborations with scientists more productive for both parties.

# Point 5: Provide scientific training for philosophers and philosophical training for scientists

As the PinS perspective is based on a view from inside the sciences, scientific training for philosophers can be highly beneficial for PinS research. This training, however, could go both ways: while philosophers can profit from lab internships by following the workflow and the material and theoretical restraints and possibilities of scientific research, the philosophical method can be beneficial for the scientific process as well by providing a framework for the analysis of the research process and by assessing the robustness of generated data. Thus, we propose bilateral training in basic scientific and philosophical tools. Besides having the potential of being useful for the respective research conducted in the fields, this approach could help to make PinS more visible in both research cultures and to promote trans-disciplinary collaborations.

# Group 2: Late PhDs and early postdocs

(I) Inclusion of ECR and MCR representatives on the PiBM steering committee(2) Running PhilinBioMed focused sessions at philosophy, science studies/STS, and science conferences (similar to the PSA's cognate society sessions)

(3) Hosting an online grant writing workshop particularly about using PhilinBioMed approaches in research proposals

(4) Establishing a mentoring program for sharing experiences and problem solving in relation to utilising PhilinBioMed approaches

(5) Organising small groups from within the network (including ECRs) to write perspective pieces for higher-profile outlets on the value of philosophy for bio/ medicine (this likely will require that someone has previous connections with such outlets in order to be invited to write these types of pieces).

# Group 3: Senior postdocs and non-tenure-track faculty

This group included 5 workshop participants and myself (Michele Luchetti) as a facilitator. Our group kept to the following structure. We initially took some time to individually note down on paper possible action points to develop the PhilInBioMed Network. Then, we opened a discussion phase, during which everyone contributed by presenting one or more points, which were discussed by the group. Finally, we found a synthesis, which led to a final list of 4 points.

My impression as a facilitator was that the group found the proposed task somewhat difficult, inasmuch as it presupposed some sort of shared collective goal that, however, was not perceived as entirely clear or homogeneously shared by all participants. This led to the group raising some fundamental questions. The first point stems, in fact, from such a question, in that it relates to the necessity of clarifying the 'in' of the Phil-in-BioMed approach. More precisely, the group converged on the necessity to deepen and expand the conversation about what it means to use philosophical methods and have scientific impacts.

The second point concerns the need to identify the impact that the Network can have on the job market. This does not just refer to the creation of academic positions stemming from the development of the Network itself, but to the identification of possible non-academic career paths for students and young researchers trained with the PhilInBioMed approach. The third and fourth points both concern publishing, even though they identify two different directions of intervention. The third point suggests the possibility of creating a new publishing venue entirely dedicated to publications developed with the PhilInBioMed approach. Group participants thought that this action would also concretely help clarifying the intents and positioning of the Network, by means of the selection of contributions identified as representative of the Network's approach and goals. Finally, the fourth point suggests that senior academics from the Network should publish some of their works in generalist philosophy journals. This could contribute to breaking the "glass ceiling" for younger scholars in philosophy of science, and more specifically in PhilInBioMed, who struggle to publish in non-specialist journals.

#### Group 4: Senior or tenured professors

First, our group felt that it would be beneficial to clarify the relationships between PhilInBioMed and similar organizations or networks, such as SPSP and the PhilInMed Roundtable. To what extent do they overlap in terms of people, approaches, and objectives? One idea would be to use Venn diagrams to illustrate these different communities and their intersections. Additionally, we believe that more empirical data on PinS as a whole is necessary.

Next, we generally agree that the primary goal of PinS is to contribute to science, but it would be helpful to define what this entails more precisely. In contrast, the question of which methods can be employed in PinS is much more open. We think there should be more discussion on methods, with a greater openness to adopting a diverse range of methods for conducting PinS. There is also a suggestion to be more inclusive regarding the "S" in PinS, that is, concerning the scientific or medical fields that should be included (while recognizing the distinction between PinS as a general concept and the more specific PhilInBioMed). Overall, we see a need for some "fuzzy boundary work," keeping in mind that other communities often thrive despite providing only a vague idea of their identifying criteria. An alternative or complementary proposal is to create a hierarchy of boundaries for PinS, with more and less strict criteria organized in a Russian doll model. These reflections on the aims and methods of PinS should be accompanied by more concrete discussions on the publishing norms for PinS research.

In response to concerns about "existential risks", such as the potential loss of identity as a philosopher when engaging in PinS, we emphasize the importance of establishing "disciplinary safe spaces." These spaces should ideally facilitate interactions between philosophers and scientists, while allowing them to preserve their unique disciplinary practices and norms.

(cont...)

# **Studying PiBM Up Close**

Hi, my name is Jacob (Hamel-Mottiez) and I am a Canadian researcher affiliated with Université Laval in Québec. I recently joined ImmunoConcEpT for a 4-month research stay.

My research interests are deeply tied with how we can make philosophy relevant to science. Currently, stemming from the idea that to be relevant philosophers should know and engage with the science they aim to contribute to, I am using computational tools to investigate the place that biology has in philosophy of biology. In addition to this work, I also conduct interviews with scientists which have collaborated with philosophers (such as those in Bordeaux) to understand better this complex cooperation and how we can improve it.

Don't hesitate to contact me if you would like to share your experience with me! Jacob.hamel-mottiez.I@ulaval.ca