

8th European Advanced School
in the Philosophy of the
Life Sciences (EASPLS)
“Philosophy of Biology
for a Healthy Planet”

7–11 September 2026, KLI

EAPSLS 2026

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Schedule

MONDAY 7 September

- 12:30-13:30 Welcome lunch (at the KLI)
- 14:00-14:30 Opening of the summer school
- 14:30-16:00 First keynote: Julie Jebeile
- 16:00-16:30 Coffee break
- 16:30-18:00 First workshop session
- 18:30-20:00 Welcome drinks and dinner (at the KLI)

TUESDAY 8 September

- 9:00-10:30 Two senior faculty talks: John Dupré and Thomas Pradeu
- 10:30-11:00 Coffee break
- 11:00-13:00 Second workshop session
- 13:00-14:30 Lunch
- 14:30-16:00 Two senior faculty talks: Philippe Huneman and Joeri Witteveen
- 16:00-16:30 Coffee break
- 16:30-18:00 First professional development activity: *The art of publishing* (led by Thomas Reydon)

WEDNESDAY 9 September

- 9:00-10:30 Two senior faculty talks: Marcel Weber and Sabina Leonelli
- 10:30-11:00 Coffee break
- 11:00-13:00 Third workshop session
- 13:00-14:30 Lunch
- 14:30-16:00 Second keynote: Alkistis Elliot-Graves, *Wild science as ordinary science*
- 16:00-16:30 Coffee break
- 16:30-18:00 Second professional development activity: *From academic philosophy to wider engagement* (led by Sabina Leonelli)

THURSDAY 10 September

- 9:00-10:30 Two senior faculty talks: Adrian Currie and Arantza Etxeberria
- 10:30-11:00 Coffee break
- 11:15-11:45 Senior faculty talk: Cristina Villegas

11:45-13:00 Fourth workshop session
13:00-14:00 Lunch
14:00-15:30 Walk in Klosterneuburg
15:30-16:00 Coffee break
16:00-18:00 Fifth and final workshop session (including preparation of presentations)
19:00 Closing Dinner (at the KLI)

FRIDAY 11 September

9:00-10:30 Student presentations part 1
10:30-11:00 Coffee break
11:00-12:30 Student presentations part 2
12:30-13:15 Wrap up and evaluation of the school
13:15 Farewell lunch (at the KLI)

Workshop sessions – instructions

PhD students are expected to use the workshops to prepare a presentation, to be given in plenary on the last day, that answers the following question: “How could your research contribute to understanding planetary health?”. Presentations are expected to last no longer than 20 minutes each, be done as a group and on behalf of the group, and contain elements from research by all of the students involved (at least one slide on each project).

Students will be allocated to a group upon arrival on the first day, with six groups of five students each. Each group will be supported by two senior scholars (who will stay the same for the first three sessions, then be replaced by another two senior scholars for the last two sessions).

First workshop: get to know each other’s projects and research interests, and start discussions on which topic/perspective you can work on jointly.

Second workshop: continue discussions of your research projects and settle on a topic for your presentation.

Third workshop: do some research /discussion on your topic and decide a structure for your presentation.

Fourth workshop: discuss and draft the various components of your presentation.

Fifth workshop: rehearse and finalise your presentation, making sure that it clearly indicates how you chose to answer the question asked.

Abstracts

Keynote Speakers

Alkistis Elliott-Graves (Bielefeld University):

Wild Science as Ordinary Science

Philosophy of science has typically focused on a relatively narrow image of science: controlled, theory-focused, methodologically disciplined inquiry, rather than science conducted in complex, real-world contexts, especially when oriented toward intervention. Such science has often been treated as applied, derivative, or otherwise exceptional: important, but not quite central to understanding science itself. However, because of climate change, biodiversity loss, ecological degradation, and the broader decline of planetary health, scientists are increasingly required to produce knowledge in contexts marked by causal complexity, uncertainty, poor or incomplete data, time pressure, contested standards of success, all while facing increasing pressure to intervene. The aim of this talk is to argue that this type of scientific practice, which I call *wild science*, accounts for an increasing share of contemporary scientific work, and that philosophy of science should give it a place commensurate with its role in contemporary science. I will illustrate my argument with examples from *restoration ecology*, which is quintessentially wild: it is intervention-oriented and operates in degraded and changing ecosystems whose futures are uncertain. I will show that taking wild sciences such as restoration ecology seriously gives us a fuller, more accurate picture of scientific practice, and therefore improves philosophy of science itself.



Julie Jebeile (University of Bern):

Value Conflicts and the Definition of Planetary Health

Planetary problems include climate change, biodiversity loss, land-system change, freshwater disruption, pollution, and environmental injustices across regions, generations, and species. These problems are interconnected, yet responses to them may conflict. Climate mitigation, for example, can increase pressures on biodiversity, land, water, or particular communities. This talk asks what such conflicts tell us about the possibility of defining planetary health. Using the planetary boundaries framework, I argue that planetary health cannot be treated as a single biophysical state to be optimised. Defining planetary health therefore requires making explicit the conflicts among values such as climate stability, biodiversity protection, human well-being, and justice, as well as determining how these conflicts should be addressed.



Senior Faculty

Adrian Currie (University of Exeter):

Unprecedented Futures

In recent work, I've considered how scientists tackle 'Lost Worlds': times in the past that differ from the present in surprising, epistemically significant ways. Sometimes the past is hard to know because we have bad records; sometimes the past is hard to know because the past was weird. In this talk, I'll consider whether the broadly optimistic story I give about lost pasts might also apply to unprecedented futures, that is, times in the future that are surprising in epistemically significant ways. Unfortunately, my optimism about weird pasts does not carry to weird futures. This is because our knowledge of lost worlds is grounded in traces and records. Traces allow paleoscientists to imagine and investigate lost worlds. I doubt that we'd have imagined, say, an enormous sauropod like a diplodocus had we not found fossil traces of them. And those fossils are crucial for grounding investigation into such unique, long-extinct critters. But is there anything like a 'trace' of the future? If not, then it seems we have an epistemic asymmetry between lost pasts and unprecedented futures. I'll analyse and defend that asymmetry and speculate a little on the upshots for how we think about unprecedented futures.



John Dupré (University of Exeter):

What is a healthy process?

This talk starts from the premise (much argued for in my previous work), that life consists of processes not things. Given this premise what is it to be healthy? After briefly explaining the process biology that I endorse and some reasons for embracing it, I'll talk a bit about what it implies for understanding the health of an organism. I'll then explore the possible extension of this to the idea of a healthy ecosystem and a healthy planet.



Arantza Etxeberria (University of the Basque Country):

Anthropogenic Changes of Reproductive Relations

In several collaborative works, we have argued that an organismal-relational account of reproduction requires reconsidering how it is conceptualized in both evolutionary and organizational approaches. In evolutionary biology, reproduction is often analyzed in terms of fitness, reproductive success, and competitive dynamics. In organizational views, by contrast, reproduction has often been treated as derivative of the processes of self-maintenance and self-constitution that define living organization. Our work on

modes of reproduction, viviparity and pregnancy, menstruation, reproductive traits, and the reproductive Umwelt suggests a different approach: reproduction should be understood as a distributed process constituted through developmental, physiological, and ecological relations operating at both intra- and interorganismal domains. This presentation relates these findings to anthropogenic change, which has usually been conceptualized in terms of how selective regimes (modern synthesis), developmental processes (evo-devo), and organism–environment relations (niche construction theory) are altered. By asking how human-induced environmental transformations affect the reproductive relations through which organisms develop, interact, and evolve, we may inquire how anthropogenic environmental change modifies systems of biological meaning-making and recognition involved in reproduction, as well as how transformed reproductive relations provide a framework for addressing consequences for health, disease, and biodiversity.



Philippe Huneman (IHPST, Paris 1 Panthéon-Sorbonne University):

Scales, norms, individuals and environment : key concepts for planetary health in an evolutionary perspective

The current ecological crisis compels scientists to redefine concepts of health, organisms and environment. While health was supposed to be a key property of a human as an individual living organism, likely to be altered or lost, the increasing acknowledgement of the intertwining between environment, humans and the living in general at all scales forces biologists and ecologists to rethink health and its conditions. The One Health project intends to conceive of ‘health’ as indissociably human and environmental. However, defining and measuring the health of an environment or of the Earth raises major issues, whose solution requires philosophical reconceptions.

In this talk I will argue that the concept of norm has to be clarified to be capable of allowing attributions of health to different evolutionary systems. I will question the polysemy of the term ‘environment’. Then I will argue that scale-dependency, a central notion in theoretical ecology, should be explicitly recognized and defined. Finally, I will question the relevance of the plurality of meanings of ‘individuality’ to the question of the bearer of the property ‘healthy’.

The talk is committed to an evolutionary view of ecological entities, and therefore, will conclude by considering the relation of the ongoing and difficult synthesis of ecology and evolution and planetary health.



Sabina Leonelli (Technical University of Munich):

Rescuing Intelligence for Planetary Health

This presentation explores the relationship between technology and nature—and between the digital realm and biodiversity—by examining the impact of new technologies on climate change and social exclusion. It acknowledges that while technology can help mitigate environmental problems (and, by extension, social inequalities), it can also exacerbate them. Drawing on philosophical, historical, and social studies of the biological, medical, cognitive, and environmental sciences, I propose an alternative vision for artificial intelligence—one explicitly grounded in insights from the life sciences and geared towards sustaining planetary health - called ‘environmental intelligence’ (Leonelli 2025). If time permits, I will also discuss examples of collaboration among citizens, institutions, and biologists aimed at creating a digital world that truly serves the planet. One vehicle we have used in Italy to experiment with these ideas is *Pianeta Lab*—a partnership between the association *Pianeta* and the University of Munich’s public science laboratory (<https://www.pianeta.org/pianetalab/>).

Leonelli, S. (2025) Environmental Intelligence: Redefining the Philosophical Premises of AI. *Harvard Data Science Review* 7(4), <https://doi.org/10.1162/99608f92.ac7c1504>



Thomas Pradeu (University of Bordeaux):

Universal Immunology

Given the centrality of immunology to contemporary basic biology and biomedicine, it is difficult to account for the comparatively limited interest this field has attracted among philosophers (Pradeu 2019; Swiatczak and Tauber 2026). In the present talk, I shall argue that recent research provides compelling evidence that immunity may justifiably be regarded as ‘universal’ in three fundamental respects:

- (1) All living organisms on Earth exhibit immune processes;
- (2) Immunity is likely to have played a fundamental role in the origins of life;
- (3) Immunity is essential to life beyond Earth and ought therefore to be incorporated into the criteria employed for the definition and detection of life (e.g., the NASA Life Detection Ladder, Neveu et al. 2018).

Of still greater significance for the purposes of this summer school, the ubiquity of immunity, taken together with the interconnections between microbial life and immune processes, entails that the understanding and management of infectious disease must henceforth be conceived at a planetary scale.

References:

Neveu M, Hays LE, Voytek MA, et al (2018) The Ladder of Life Detection. *Astrobiology* 18:1375–1402. <https://doi.org/10.1089/ast.2017.1773>

Pradeu T (2019) *Philosophy of Immunology*. Cambridge University Press, Cambridge

Swiatczak B, Tauber AI (2026) *Philosophy of Immunology*. In: Zalta EN, Nodelman U (eds) *The Stanford Encyclopedia of Philosophy*, Spring 2026.



Cristina Villegas (KLI):

On the Role of Evolvability in Health and Ecology

Evolvability has come to the forefront in evolutionary biology as a theoretical concept referring to the capacity of biological systems to generate potentially adaptive phenotypic variation. Philosophers of biology have started to pay much attention to this notion, particularly from the point of view of the theoretical roles it plays within the complex interdisciplinary structure of evolutionary biology. However, much less attention has been paid to how these theoretical roles can significantly shape applied biological research. In this talk, I examine both the emergence of an evolvability-based mode of reasoning in fields such as conservation biology and evolutionary medicine and its potential to shape future research and practice. I argue that greater philosophical attention to this potential can contribute to more informed approaches to the evolutionary dynamics through which ecosystems and individuals respond to rapid environmental change.



Marcel Weber (University of Geneva):

Scientific Testimony as a Public Office

Much has been written about the epistemology of expert testimony and the basis for public trust in it. A large part of the literature focuses on the question of what warrants a layperson's belief in what the experts say. Another strand of the literature is more social and concerns the question of whether groups such as expert committees have a kind of knowledge that is distinct from just the aggregated knowledge of the experts composing the committee. In this talk, I will sketch a new account of scientific testimony. I will take an *institutional* perspective by considering expert testimony as a *public office* that comes with a distinct set of norms for which scientific experts should be held accountable. The term “office” is understood very broadly and designates here the role of any scientist who gives expert advice to policymakers and to the general public on any issue. I claim that any scientist who communicates *qua* expert to interlocutors *outside* their scientific community should be considered as *ipso facto* holding such an office, irrespectively of any membership in committees or official advisory roles. Just by speaking to non-peers *qua* expert a scientist assumes certain duties and responsibilities that constitute a specific kind of public office. I suggest that these duties include (1) only to speak on matters about which one is a recognized

contributing expert, (2) only to make informative assertions that are backed by a solid consensus in the relevant scientific community, (3) to disclose any potential conflicts of interest, (4) to aim at giving value-free advice wherever possible and to report as far as possible any non-epistemic value judgments that might underly the consensus, and (5) to remain politically neutral. Scientists should not be held accountable for making false assertions if they fulfil these five duties that constitute the public office of scientific expert.



Joeri Witteveen (University of Copenhagen):

From indicator to instrument? The expanding normative roles of the IUCN Red List

The IUCN Red List of Threatened Species is widely regarded as the authoritative global system for assessing species' extinction risk. Since its inception, its architects have emphasized that Red List categories are indicators of the symptoms of extinction risk, not instruments for determining conservation priorities. This distinction has motivated repeated warnings that Red List categories should not be treated as direct prescriptions for conservation action.

This paper argues that this framing no longer adequately captures the contemporary role of the Red List. Over the past two decades or so, Red List assessments have become embedded in increasingly complex chains of derivative knowledge products, international agreements, and legal and regulatory mechanisms through which extinction-risk assessments are translated into actionable policy instruments. As Red List categories are incorporated into biodiversity indicators, prioritization frameworks, benchmarking tools, and compliance mechanisms, they acquire normative functions that extend well beyond the purposes for which they were originally designed.

I argue that this development has created a growing tension between the Red List's epistemic warrant as a standardized measure of extinction risk and the expanding authority it exercises in shaping conservation priorities and policy decisions globally. The case of the Red List thus illustrates how a scientific indicator can accumulate normative force through processes of epistemic, institutional, and legal embedding, rather than through explicit changes to its scientific aims or methodology. As such, it invites broader philosophical reflection on how the normative roles of scientific indicators evolve as they become embedded and entrenched in governance infrastructures — a dimension of the science-policy interface that has received scant attention in the philosophical literature on values in science.

