AI in **Science** Fellowship Programme

This opportunity is for early career faculty members from any Science/Engineering department that seek to disrupt science and engineering using AI. *Expertise in AI is not a prerequisite nor is a background in Computing*. Faculty members will spend 1 year in Imperial College London as part of their AI in Science Fellowship programme and will be bought out from teaching for the year of their return. These prestigious faculty fellowships, with a generous stipend and mobility fund, will be given bespoke training and 1-on-1 career development support, will join a collocated cohort of top scholars based in I-X (Imperial's flagship AI initiative) and join the international network of Schmidt Sciences AI in Science fellows. The fellowships are flexible and independent, allowing recipients to freely explore how AI can change the way they do Science and Engineering.

Key dates:

From now: liaise with your Heads of Department and seek letters of support from them and from potential Imperial College Hosts.

Internal Deadline: 1st March 2025

Final Decisions: April 2025

Indicative start date in Imperial College London: September 2025

Enquiries at Imperial: e.boyce@imperial.ac.uk
Enquiries at USP: https://uspdigital.usp.br/mundus/faleConosco

Further details:

The two-year fellowship will include the following:

- One year, fully funded at Imperial including resources to help visa and relocation costs and supported by a dedicated onboarding assistant.
- Generous tax-free stipend of £48,000 allocated for the year in London.
- Extra support for those with a range of family circumstances Working space in I-X (Imperial's interdisciplinary AI initiative) co-located with I-X AI faculty and the ~25 AI in Science Fellows with access to GPU-compute.
- Dedicated support staff to help with AI training and career development.
- Cohort events, seminars and socials with the other AI in Science Fellows at Imperial and connections to the Women in AI network run from I-X.
- Funding in the second year of the fellowship back at the partner home institution to free up time from teaching in the second year of the fellowship.
- £30k funding support per fellow for travel, visits and conferences.
- Bidirectional visits to Imperial and other partners.
- Continuing support for career development, grants and Fellow-led conferences and workshops.

- Annual fellow-led conference and prize for the best AI in Science from Global South researchers.
- Pre-acceleration support up to 6-months before the fellowship starts and post-acceleration career support after the fellowship ends including routes to seed-funding and international grants.
- Membership of the international Schmidt Sciences AI in Science Fellow network with its associated event series and alumni network including links to partner programmes in Oxford and Cambridge
- Links to events in Imperial's Global hubs in Accra, Bangalore and Singapore.

Eligibility:

- The target is that three fellows per year on average will be selected.
- Candidates can be from any department – this call is for candidates from any science/engineering department that seeks to change their science/engineering using AI (it is not only a fellowship for those from Computing – the large majority of fellows are NOT from computing departments and do not have degrees in computer science).
- In order to be eligible to apply, applicants must be early/mid career and be within the AI in Science remit.
- Under the AI in Science Remit, 'AI' is interpreted very broadly, that is including topics in Bayesian Inference and Robotics, with 'Science' covering any typical topic in Natural Science and Engineering.
- These fellowships are not suitable for research into generic AI with general application - candidates must be aiming to substantially advance a very particular area of science. Applicants could view themselves as AI researchers tackling a particular piece of Science or Science researchers using AI to transform their area.
- A deep knowledge of AI is not a precondition for this fellowship: only an appreciation of the need for AI and a willingness for skill acquisition in AI. Candidates do not need to come from Computing departments.
- 'Science' covers any typical topic in Natural Science and Engineering. Epidemiology, Biology and basic science in biomedicine are included but, aside from Epidemiology, clinical medical themes including conventional medical imaging, are not covered.
- Social sciences and humanities are not covered.
- AI must be an essential/catalytic component of the proposal and not an add-on which, upon removal, would leave the science unchanged. In a successful proposal, removing the AI (note our broad definition of AI) would severely compromise the whole project because it is through the use of AI that the scientific goal is being achieved.
- Full details of remit can be found here: https://www.imperial.ac.uk/ix-ai-in-science/apply/ under the 'Remit' drop-down. There is no flexibility about remit.

Application Requirements

- The candidate's CV including publications

An additional single file with:

- **Publication Elaboration**: a 1 page, or less, note outlining the contribution of up to three papers by the applicant. This should be suitable for a general scientific reader.

- **Research Proposal Summary**: a 1 page or less, summary of the proposed research suitable for a general scientific audience including the title of the research project. Particular attention will be paid to this summary. It should answer the question of why/how this application of AI will be transformative for the target area of science. The proposal should start by mentioning the applicant's proposed department and at least one faculty member at Imperial who would support the visit and act as a host. Hosts must be contacted in advance of the application and will need to supply a letter of support form. It is not essential that the mentor be a very close fit to the proposed research, entirely independent research efforts are welcomed, but a collaborative relationship is likely to make the science more credible and help with integration.
- **Research Proposal**: 3 pages or less proposal that explains why and how the proposed research could be transformative for a particular area of science. It can be structured around background, a small number of hypotheses/aims, and work packages. It can be assumed that the reader will first read the Summary and so content need not be repeated.
- **Training Plan**: a ½ page or less plan, identifying any particular skills that need to be acquired for the proposed research to succeed. Training is a key part of the proposed fellowship, whether helping an AI expert master a scientific topic or a scientific topic expert advance their AI skills. Deep expertise in AI (or the particular Science area) is not a pre-requisite: the minimum level of AI/Science experience is that needed to credibly articulate a plan for how AI will advance Science.
- **Fit to AI in Science Remit**: a ¼ page or less outline of how your proposal fits within the AI in Science remit – please check your proposal's fit here.
- **Kindness Statement**: a ¼ page or less outline of your view on the need for kindness among scientists.
- *A Letter of Support form from a proposed academic mentor at Imperial (a copy linked here by following links to Global Faculty Fellows)*
- *A letter of support form from Home head of Department (a copy linked here by following links to Global Faculty Fellows)*

Selection Criteria:

- Fit with the programme: whether the proposed research vision and the specific project align with the AI in Science remit.
- Candidate track-record: the candidate's past experience and accomplishments in research; the candidate's potential to grow as a research leader through using AI: their willingness to take risks, creativity and originality, curiosity, collaborative spirit, entrepreneurship, and the ability to think big, as reflected in their past accomplishments and proposed plans.
- Research statement: the vision, the approach, and initial feasibility, the potential of making groundbreaking discoveries, the potential of becoming a sustained research portfolio after the Fellow leaves the program.
- Skills development: the candidate's potential to acquire strong AI skills for the proposed research and long-term impact in the field; evidence that the candidate and mentors have carefully thought about the needs for skills development and are committed to it.
- Academic support: whether the selection of Imperial host is appropriate for the research project, the training plan, and career development, as well as the host letters.
- Diversity: Of both fellows and mentors, along multiple dimensions, including demographics and disciplines.

Achieving a Gender Balance: Of the 3 visiting fellowships awarded, the clear expectation is that at least one of the three fellows will be a woman.