Junior Professor Chair (tenure track position) in Artificial Intelligence for Digital Health (F/H)

HIRING DATE 01/11/2024 LOCATION 60 RUE MAZARINE 75006 PARIS
SCHOOL PSL

WORKING ENVIRONMENT AND CONTEXT

HOSTING STRUCTURE

Université PSL is launching a call for applications for a **Junior Professor Chair** in Bioinformatics / Computational Biology **titled "Artificial Intelligence for Digital Health".**

" Artificial Intelligence for Digital Health".

The activity will take place at **the Center for Computational Biology (CBIO), Mines Paris PSL, Université Paris Sciences et Lettres (**CBIO, Mines Paris, https://cbio.mines-paristech.fr).

This is a tenure track position with a reduced teaching load leading to a full professor position in three years. The position will start on Novembre 1st 2024 (or at a mutually agreed later date).

The position is open to all researchers wishing to develop their activity in Artificial Intelligence for biology or medicine. The position includes an internationally competitive salary and competitive start-up package.

Wholly committed to excellence in education, training and research, PSL is a global university, which aims to reflect, represent and influence society today and the world of the future in all its diversity. The university's collegial ethos is a major asset. Made up of eleven component institutions, including Mines Paris, PSL ensures that dialogue takes place between all areas of knowledge, innovation and creativity in science, humanities, social sciences, arts and engineering. PSL offers an education led by the research carried out in its laboratories while encouraging discussion and mobility between disciplines and across schools. Our university exercises critical thinking and fosters creativity. Students are selected on the basis of their potential and talent. The university champions equal opportunities and promotes social, cultural and geographic diversity, and students are guaranteed individual mentoring, small class sizes and personalized academic pathways.

The Center for Computational Biology (CBIO) is a research center at Mines Paris; it is affiliated with its Department « Mathematics and Systems » and the joint unit "Computational Oncology (U900)" with the Institut Curie and INSERM. The CBIO develops methods in artificial intelligence, machine learning, and computer vision for applications in life sciences, covering a wide range of applications from fundamental biology to clinical applications. CBIO's collaborations allow it to work on data from various sources, such as DNA sequencing technologies, spatial transcriptomics, protein structures, large-scale microscopy, medical imaging, and electronic health records. The CBIO develops innovative mathematical methods and algorithms to analyze these massive, heterogeneous, and complex data, thus addressing biological or clinical questions. The CBIO is involved in several major initiatives in France, both for methodological development in AI and its applications in health (e.g., PRAIRIE, the PEP-R Cell-ID on interception medicine, or the IHU "Institute of Women's Cancers").

The CBIO is also very active in teaching Artificial Intelligence (AI) and Machine Learning (ML) at the Mines ParisTech School and at PSL University. In this context, the CBIO is involved in setting up a PSL master's program (M1/M2) "Science and Technology for Health." The recruited person will take responsibilities in this new master's program.

Requirements to apply

Candidates must have held a doctorate for at least three years and have a research record including publications in fields relevant to the job profile and in top-ranking journals. Significant international experience is desirable.

TEACHING MISSION

CENTRE DE BIOINFORMATIQUE (CBIO)

The teaching project will be part of the graduate programs "Engineering" and "Life Sciences" at PSL University, and, in particular, the new master's program "Science and Technology for Health" opening in September 2025. The recruited individual will take responsibilities within the "Data Science and Digital Health" track, which will offer teachings covering a wide spectrum, from biotechnologies to precision medicine. They will contribute to the organization and coordination of this track and will deliver part of the teachings. Additionally, the recruited individual will participate in teaching at Mines Paris (AI/ML and life sciences). Finally, they may be involved in developing new AI training offerings, particularly in the context of the international bachelor's program led by the three engineering schools of PSL opening in September 2025, or in continuing education programs.

Teaching will be in English for the Master2 PSL.

The CPJ holder will have a reduced teaching load during the pre-tenure period (minimum of 64 hours of teaching time per year, then a teaching load of 192 hours of teaching time as a full professor).

No additional courses or work may be carried out during this period, which must be mainly devoted to research.

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RESEARCH MISSION

COMPUTATIONAL ONCOLOGY (UNITÉ MIXTE INSTITUT CURIE, INSERM, MINES PARIS).

The scientific project associated with this position will align with the strategy of the Center for Bioinformatics and aim to develop and apply Artificial Intelligence methods in the field of health, particularly for oncology applications. We consider both projects targeting clinical applications and projects that are more upstream, aiming to understand disease mechanisms. Examples include: the search for molecular or morphological biomarkers, genomic and transcriptomic analysis, precision medicine, biomedical image analysis, computer-assisted diagnosis, drug design via computational approaches, and patient record analysis.

The recruited individual will develop innovative and ambitious computational methods to address cutting-edge questions in medicine and/or biology. Therefore, we expect both a high level of technical expertise in AI/ML and a commitment to health application. The research project conducted as part of this position will complement the projects carried out at the Center for Computational Biology and will be integrated with the activities of our joint unit "Computational Oncology" (joint unit Institut Curie, INSERM, Mines Paris).

The recruited individual will find a stimulating environment at the interface between AI and cancer research, with considerable computing infrastructure and an environment that fosters strong interactions between disciplines, thanks to our partnership with the Institut Curie.

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NON DISCRIMINATION, OUVERTURE ET TRANSPARENCE

L'Université PSL s’engage à soutenir et promouvoir l’égalité, la diversité et l’inclusion au sein de ses communautés. Nous encourageons les candidatures issues de profils variés, que nous veillerons à sélectionner via un processus de recrutement ouvert et transparent.

APPLICATION PROCESS

https://galaxie.enseignementsup-recherche.gouv.fr/antares/fichePosteFidis?telecharger=Telecharger&profil=eta&numemp=65&numetab=0756036D

CONTACT

https://galaxie.enseignementsup-recherche.gouv.fr/antares/fichePosteFidis?telecharger=Telecharger&profil=eta&numemp=65&numetab=0756036D

OTHER INFORMATION

Recherche principal : **Ingénierie biologique** Recherche secondaire : **Médecine**
Quotité de travailcf. job description attached
Durée du contratfrom 3 to 6 years

Experience years	**Position open to BOEs**	**Reference**
Niveau doctorant (R1) an		**CPJ IA santé 65**

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Université PSL (Paris Sciences & Lettres)