

Funded Internship in U. Tokyo on DNA Data Storage

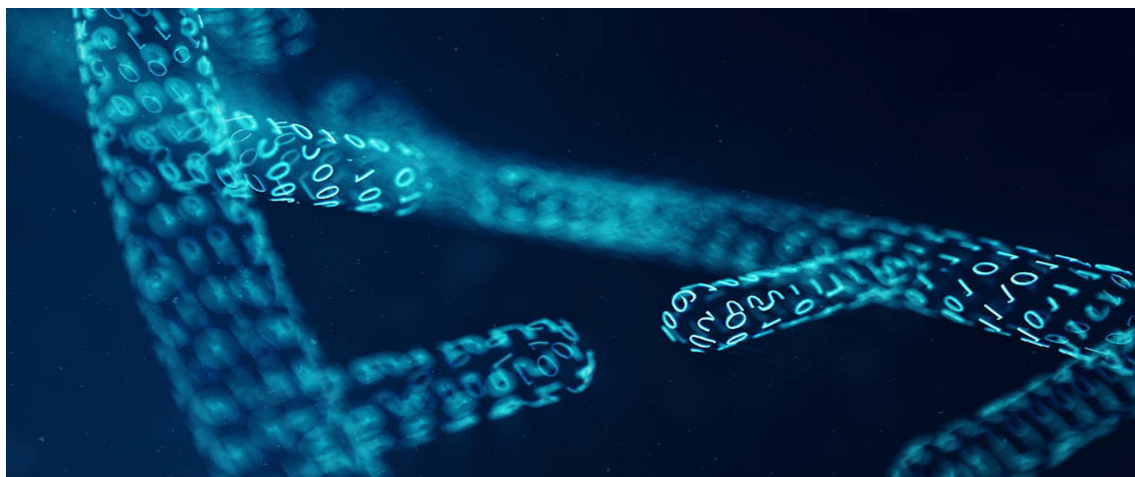
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Keywords: DNA data storage, microfluidics, photochemistry, enzymology

All the data held by datacenters around the world could fit in just 10 gram of DNA. But commercial DNA synthesis is nowhere fast enough to achieve that dream of abundant and environmentally friendly data storage.

MoleculArxiv - a priority program selected by the French Research Ministry - aims to catalyze the revolution of DNA data storage by reinventing DNA synthesis. In that frame, **LiMMS** is looking for interns in all fields related to DNA data storage (physics, chemistry, biology, engineering...). The internship will be tailored to the student's profile, and will involve the enzymatic photosynthesis of DNA in microfluidics droplets.

Funding is available to cover travel and living costs in Tokyo. We are equipped with state-of-the-art facilities, and we are world leaders in combining DNA nanotechnology, enzymes and microfluidics [1,2].



New skills to be learned:

- DNA synthesis
- Droplet microfluidics
- High-throuput data analysis

Skills and Experience

- Motivated by working in an international environment
- Willingness to work across disciplines

References:

- [1] Genot, Nature Chemistry, 2016
- [2] Baccouche, Nature Protocols, 2017

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(send CV if available)





LiMMS is a joint international research laboratory, established in 1995 by the CNRS and the Institute of Industrial Sciences of the University of Tokyo.



LiMMS works with 16 U.Tokyo laboratories located mostly on the Komaba campus (close to the bustling Shibuya area). The supervision of the internship is done jointly by a French CNRS researcher and a U. Tokyo professor, which allows a total immersion in a Japanese laboratory while benefiting from a personalized supervision "à la française". It is not necessary to speak Japanese.

STAGES 3A/4A



Exploratory **PEPR** (Programmes et Equipements Prioritaires de Recherche) are programs launched in the frame of the France relance stimulus plan. They aim at structuring the French community around emerging scientific or technological sectors that will become of primary importance in the coming decade.

In September 2021, the Minister of Higher Education, Research and Innovation announced the first four exploratory PEPR, for a total budget of 200M€.

This includes, **MoleculArxiv**, a program which aims at revolutionizing data storage with DNA

