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**Image analysis engineer position Institut Pasteur/Cell Death and Epithelial Homeostasis group
(permanent position)**

Our research group (Cell Death and Epithelial Homeostasis) located in Institut Pasteur (Paris, France) in the department of Developmental and Stem Cell Biology is seeking an engineer in image analysis to join our group through a permanent position, ideally to start in September 2024.

Our group is interested by the fine tuning of cell death in epithelial context using mostly *Drosophila* as a model system (<https://research.pasteur.fr/en/team/cell-death-and-epithelial-homeostasis/>). We use a wide range of live imaging technics and develop new tools (including live sensors and optogenetics) to dissect quantitatively the feedback fine tuning cell death. Our group has been developing over the years various pipelines (z reconstruction, segmentation and tracking, automatic recognition of cellular events through deep learning, force inference...) and is looking for a stable support that will help us to:

- Develop new pipelines for image analysis mostly for 4D movies (PIV, segmentation, tracking, force inference, features extractions...)
- Maintain and update pipelines previously developed by the group
- Survey newly published methods and adapt them for our needs
- Assist us in the quantitative analysis of our datasets
- Help us to maintain and share our pipelines with a large public through the development of user friendly codes and visual interfaces
- Train the members of the unit for good practice in data management, code writing, metada maintenance, and data sharing

We are looking for a candidate with good coding knowledge (mostly Python, but also Matlab and Java), good theoretical knowledge of fluorescent live imaging, expertise in machine learning applied to image analysis, a real interest for collaborative work, capacity to work on several projects in parallel and with good listening capacity.

The applicant will join a dynamic and supportive group that promotes healthy work life balance, with members coming from various backgrounds, and located in a collegial and vibrant department. The application will also get close interactions with the growing community of image analysts on campus.

If you are interested, please, send a single pdf document with CV, cover letter, Github/Gitlab link, and reference contact to romain.levayer@pasteur.fr (with the subject "engineer position").

The official job advertisement can be found in the following link:

https://emploi.pasteur.fr/job/emploi-ingenieur-en-analyse-d-image-et-donnees-quantitatives-h-f_11427.aspx?LCID=2057

Relevant references:

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Villars, A., Matamoro-Vidal, A., Levillayer, F. & Levayer, R. Microtubule disassembly by caspases is an important rate-limiting step of cell extrusion. *Nat Commun* **13**, 3632, doi: <https://doi.org/10.1038/s41467-022-31266-8> (2022).

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