



**UNSW**  
SYDNEY

**Fabio Zanini, PhD**

Head of the Data Driven Biomedicine lab

School of Clinical Medicine

UNSW Lowy Cancer Research Centre, Level 2,

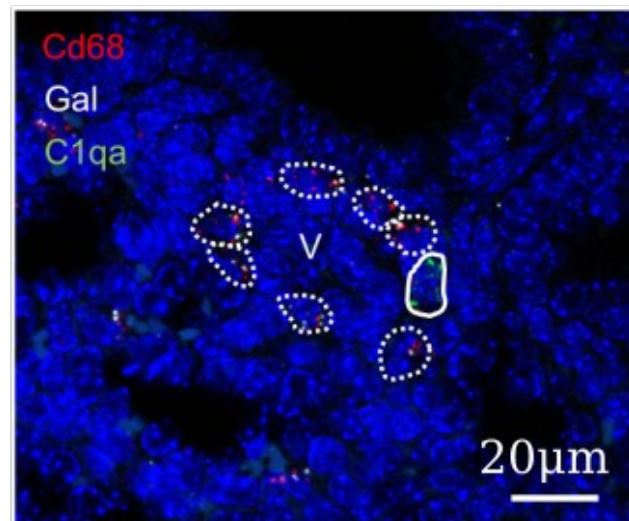
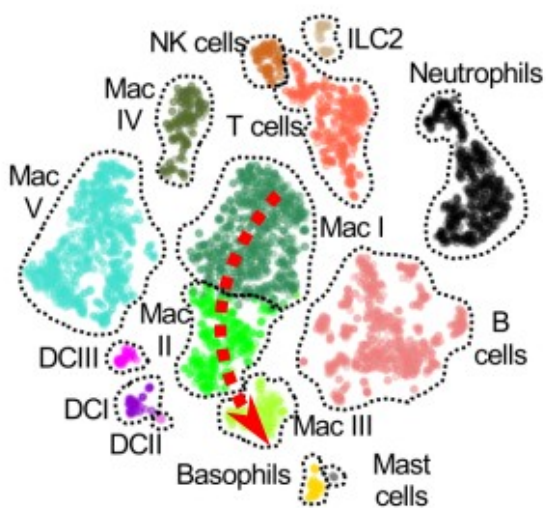
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<https://fabilab.org>

## Postdoctoral Research Fellow – Single cell and spatial data driven lung biomechanics



### The Opportunity

- Full-Time, Fixed-term opportunity for 2 years with prospects for extension.
- Salary \$100k/year + superannuation & leave loading
- Sydney, Australia based.
- Starting date from now, latest in October 2022.
- Applications will be considered until the position is filled.

The candidate will be based in the Zanini lab (<https://fabilab.org>) at UNSW Sydney in collaboration with the Alvira lab at Stanford (<https://med.stanford.edu/alviralab.html>), investigating lung development and disease through **computational exploration and analysis of single cell multi-omics and spatial transcriptomics data**. The candidate will combine computational analytics (e.g., data science, machine learning, graph-based single cell representations) with a passion to work with biomedical experimentalists to develop and translate algorithms into novel and interpretable biomedical discoveries.

### The lab

We take an interdisciplinary approach across software engineering, data science, molecular biology, and bioengineering, with numerous international collaborators. We

work on human and plant viruses, lung development and disease, cancer, regenerative medicine, marine biology, bioinformatic software, single cell bioengineering, and graph algorithms. Check out our website at <https://fabilab.org>.

### **Skills and Experience**

- A PhD in bioinformatics, computer science, physics, mathematics, or similar.
- Proficiency with at least one programming language, preferably Python.
- Experience with the command line (e.g. bash) and high-performance computing (HPC) clusters (e.g. ssh, queue submissions).
- Passion for biological systems- their complexity, redundancy, and subtleties.
- Excellent communication skills.
- Passionate, kind and supportive team player.

### **Bonus skills**

- Experience with single cell data analysis or spatial transcriptomics.
- Experience with network/graph analyses and/or algorithms.

### **Diversity statement**

Women and other underrepresented groups in STEM, including people of Aboriginal, Torres Strait Islander, or First Nations descent, people of colour, and members of the LGBTQ+ community are especially welcome to apply. We aim to create a culture of inclusiveness where **diversity is a strength, not a liability**.

### **To apply**

Send an email to [fabio.zanini@unsw.edu.au](mailto:fabio.zanini@unsw.edu.au) with:

- A motivation letter describing why you are interested in this position.
- A two page CV with three reference contacts.
- Your GitHub, Gitlab, or Bitbucket username or, alternatively, some source code highlighting your coding skills.