

## Postdoctoral Researcher

### Job Profile

CSS

#### CSS3: Physiology and Pathophysiology of Major Systems

##### Offer description

A junior postdoctoral position is available for 24 months at the EndoKARE lab "Endothelial niche dynamics in kidney aging, disease and repair" of the Institute of Metabolic and Cardiovascular Disease (I2MC, Inserm & Toulouse University) in Toulouse, France (<https://www.i2mc.inserm.fr/en/s-dumas-2/>).

The endothelium is a dynamic and heterogeneous component of blood vessels that shapes tissue microenvironments. At the EndoKARE lab we aim to identify drivers of renal endothelial niche dysfunction in kidney aging, injury, and disease. Targeting the renal endothelium offers innovative opportunities to promote kidney repair and regeneration.

The funded postdoctoral project will focus on glomerulosclerosis, a common fibrotic lesion in chronic kidney disease (CKD) and kidney aging, contributing to glomerular dysfunction and progressive kidney function decline. Centered on the glomerular endothelial niche, the selected candidate will leverage spatial omics (metabolomics, transcriptomics) alongside state-of-the-art in vitro and in vivo models to characterize and target the molecular and metabolic dysfunction of glomerular endothelial cells and their niche in kidney aging and CKD. This position offers an exciting opportunity to develop expertise in cutting-edge omics, as well as endothelial and kidney biology while contributing to innovative research with direct translational potential in kidney aging and disease.

The selected candidate will work under the direct supervision of Dr. Sébastien Dumas, junior professor chair at Inserm, head of the EndoKARE lab. The candidate will benefit from access to state-of-the-art technological platforms and a vibrant scientific community in metabolic, cardiovascular, and kidney diseases at the I2MC institute, and from national and international collaborations for the project. In addition to a rich scientific ecosystem and a strong biomedical research hub, the candidate will enjoy Toulouse's outstanding quality of life and welcoming living environment.

##### Researcher profiles

- First-Stage Researcher (*PhD candidate*)
- Young Researcher (*with less than 4 years research experience after PhD*)
- Established Researcher (*with more than 4 years research experience*)
- Senior Researcher

##### Research Fields (2 max.)

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> Biological Sciences | <input type="checkbox"/> Medical Sciences         |
| <input type="checkbox"/> Chemistry                      | <input type="checkbox"/> Neurosciences            |
| <input type="checkbox"/> Computer Science               | <input type="checkbox"/> Pharmacological Sciences |
| <input type="checkbox"/> Engineering                    | <input type="checkbox"/> Physics                  |
| <input type="checkbox"/> Environmental Science          | <input type="checkbox"/> Technology               |
| <input type="checkbox"/> Ethics in Health Sciences      | <input type="checkbox"/> Other (specify):         |

##### Main Activities

The selected postdoc candidate will:

- Design and conduct spatial omics (MALDI-MSI, transcriptomics), in vitro (immunohistochemistry, cell culture and related conventional cellular and molecular assays) and in vivo (mouse) experiments
- Collect, analyze and interpret experimental data
- Present research findings at scientific meetings and conferences
- Prepare and submit research articles and reviews

#### Associated Activities

- Participate to the supervision of students
- Assist in writing grant and fellowship applications

#### Specific

#### Requirements or Constraints

- /

#### Skills/Qualifications

- You have previous expertise in kidney physiopathology and/or vascular biology, and respective in vitro and in vivo models
- You have experience with animal experiments (Felasa B/C licence or equivalent)
- You are self-motivated and proactive
- You have strong communication and interpersonal skills, with openness to feedback
- You are proficient in written and spoken English
- Skills in bioinformatics (R or Python) will be an added value to analyze omics datasets but is NOT a prerequisite
- The ideal candidate will have a track record of scientific productivity, as evidenced by first authored publications in peer-reviewed scientific journals.

#### Required Experience

0 to 2 years  2 to 4 years  4 to 10 years  >10 years

**Fields:** kidney physiopathology, and/or vascular biology, and/or cell metabolism

#### Required Education Level or Diploma

- A PhD in biology, physiology or related fields, is required

#### Required Languages

- English (good level), French (optional)

### Hosting Unit

#### Code

UMR1297

#### Name

I2MC: Metabolic and Cardiovascular Research Institute

#### Director

Dominique LANGIN

#### Composition

15 research teams – 6 technical platforms – 280 researchers

#### Address

1 avenue Jean Poulhès - BP 84225 - 31432 Toulouse Cedex 4

#### Website

[www.i2mc.inserm.fr/en/](http://www.i2mc.inserm.fr/en/)

### Contract

#### Type

Fixed-term contract

#### Duration

24 months

#### Salary

From 2909,90 € by month

Salary will be commensurate to previous experience and in line with Inserm's salary scales.

## Application

**Applicants must send a CV and a cover letter to:** Sébastien Dumas, PharmD, PhD; Junior Professor Chair at Inserm; head of the EndoKARE lab of the I2MC. To apply, please email to [endokare.recruitment@gmail.com](mailto:endokare.recruitment@gmail.com) with your CV, the names and contact information of 2 references, and a 2-3 page research statement outlining past, present and future research interests, and why you consider yourself a good candidate for the position. Applications will be considered on a rolling basis.

**Contact for further information:**

Sébastien J. Dumas, PharmD, PhD

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sebastien.dumas@inserm.fr

**Deadline for application: April 6, 2025**