

## [Post-doctoral positions in electrophysiology and peptide drug screening]

### Job Profile

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#### Offer description

We are seeking two highly motivated and creative postdoctoral researchers in ion channel drug screening and/or ion channel mutation characterization to join our Team “Innovative Pharmacological Approaches” at l'institut du thorax (the ITX) in Nantes, France (<https://umr1087.univ-nantes.fr/research/research-teams/iib-heart-failure-and-pharmacological-approaches>). The ITX (INSERM, CNRS & Nantes University) is a structure at the forefront of translational research against cardiovascular diseases (CVD), which offers an internationally competitive research environment and cutting-edge infrastructure for pharmacological modulation of ion channels. The team ‘Heart Failure and Pharmacological Approaches’, led by Dr. Michel De Waard, is running interconnected research programs to identify natural peptides as modulators of ion channels involved in cardiac arrhythmias, pain and neuronal diseases. The team is also establishing a database on the functional characterization of cardiac channelopathies. The laboratory provides a highly interactive environment with collaborative opportunities, access to high-throughput patch-clamp, automated analytical workflows and delivery of high-quality results. The laboratory supports strong teamwork as well as individual career development.

Selected recent key publications from the team:

- Montnach et al., 2022 Nature Communications (PMID: 35058427)
- Montnach et al., 2021 British Journal of Pharmacology (PMID: 33742442)
- Oliveira-Mendes et al., 2021 Clinical and Translational Medicine (PMID: 34841674)
- Lopez et al., 2021 Front Cell Dev Biol (PMID: 34988086)
- De Waard et al., 2020 Biochem J (PMID: 33034621)
- De Waard et al., 2020 IJMS (PMID: 32998413)
- Nicolas et al., 2019 Toxins (PMID: 31234412)

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

## Main Activities

- The fellow will develop and apply innovative analytical approaches in the area of ion channel screening and carry on research studies on neurodevelopmental disorders. He/she will work closely with other team members to identify selective enhancers / blockers targeting Na<sub>v</sub>1.2 or Na<sub>v</sub>1.9 channels. He/she will develop, optimize and/or operate data analysis workflows, interpret the biological results, communicate his/her research outputs to the scientific community, and contribute to the design of downstream custom analyses. This postdoctoral position takes place in a context of national collaborations allowing the candidate to interact with our partners. The successful candidate will get privileged access to in-house state-of-the-art facilities in electrophysiology. L'institut du thorax is committed to increasing the number of individuals with disabilities in its workforce and therefore encourages applications from such qualified individuals. Furthermore, our lab seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

## Associated Activities

- Contribute to other team member projects

## Specific Requirements or Constraints

- NA

## Skills/Qualifications

- Background and publication track in electrophysiology
- Experience in drug screening appreciated but not required
- Ability to work as a Team Player
- Good skills in verbal and written communication in English

## Required Experience

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

**Fields: cardiology ; ion channels ; electrophysiology ; data mining ; pharmacology ; technology for health**

## Required Education Level or Diploma

- PhD degree

## Required Languages

- English

## Hosting Unit

**Code** UMR 1087

**Name** The research unit of l'institut du thorax

**Director** Richard REDON

**Composition** 171 people

**Address** 8, QUAI MONCOUSU 44000 NANTES

**Website** <https://umr1087.univ-nantes.fr/>

## Contract

**Type** Post-doctoral position

<b>Duration</b>	➤ 1 year renewable several times
<b>Salary</b>	According to Inserm grid of salary with recognition of past experience
<b>Envisaged Start Date</b>	As soon as possible

## Application

Applicants must send a CV and a cover letter to: Michel De Waard

Contact for further information (name, telephone/mail): Michel De Waard, +33 228 080 076 / michel.dewaard@univ-nantes.fr

Deadline for application: -