



<p>Position</p>	<p>This is a 12 month CDD position in the context of the project Exsite that is funded by the <i>Institut Carnot “Logiciel et Systèmes Intelligents”</i></p> <p>The CDD is planned to commence on 6 May 2019.</p>
<p>Project</p>	<p>Exsite is a project to optimise the architecture of a 3-D array of biomimetic membrane systems using engineering modelling and simulation techniques.</p> <p>Exsite is a paradigm-shift in the existing concepts for neuromorphic systems, because the 3-D biomimetic membrane system utilises biological components (<i>e.g. ion-transporting proteins and phospholipids</i>) and has lower energy requirements for system operations (<i>e.g. 1000-fold less than state-of-the-art ENODE neuromorphic computing systems</i>).</p> <p>Exsite is an important and necessary next-step in developing the technology described in the patent US9,577,820 (<i>Biomimetic artificial membrane device</i>), which is the basis for 3-D biomimetic biofuel cell systems and is now leading to the construction of prototypes for neuromorphic systems.</p>
<p>Research Team</p>	<p>This position is in the research team SyNaBi (https://www-timc.imag.fr/synabi) that is part of the laboratory TIMC-IMAG (UMC 5525)</p> <p>SyNaBi is a multidisciplinary research team that takes a bioinspired approach to develop innovative biotechnologies for implanted medical devices and diagnostics. SyNaBi has an active fundamental and applied research activity (<i>funded by several agencies including ANR, SATT/Linksium, Ligue Contre Cancer</i>) in the domains of:</p> <ul style="list-style-type: none"> • biomimetic membranes and biocompatible polymers, • biophysics and modelling, • molecular and cellular biology, • bioelectrochemistry, • electrophysiology
<p>Information</p>	<p>Questions on this position can be directed to Prof Donald Martin, Head of the team SyNaBi (don.martin@univ-grenoble-alpes.fr)</p>
<p>Your Profile</p>	<ul style="list-style-type: none"> • engineer or postdoctoral scientist with a background in either biophysics, bioengineering, electrophysiology, biology or applied mathematics, • demonstrated expertise in modelling and simulating non-linear systems, preferably with experience in bioelectronics or membrane transport processes, • expertise in simulation software environments (e.g. Matlab, COMSOL, ...) • able to work collaboratively in a dynamic and multidisciplinary team
<p>Application Process</p>	<p>Applications including a CV and the names of 3 referees should be emailed to Prof Donald Martin (don.martin@univ-grenoble-alpes.fr) before 12 April 2019</p>