

## ROLE: Biomodeler

From	People Ops
To	--
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Status	Non-confidential

Nova is a pioneer in the emerging field of *in silico* medicine based in Lyon (France). It specializes in numerical modeling and simulation of clinical trials for biotech and pharmaceutical companies, academic research centers and non-profit organizations.

We help our clients unleash the potential of combining math, computer science and biology to reduce the risks associated with R&D of new treatments for the benefit of patients.

Through a collaborative work of our team of biologists, doctors, clinicians, mathematicians and computer scientists we develop multiscale mechanistic models in various fields such as oncology, cardiology, immune disorder, viral infections or metabolic diseases.

### You are...

- **A team player**, a good listener, and an effective communicator  
*Join a growing multidisciplinary team of enthusiastic innovators such as biologists, data scientists, applied math engineers and developers.*
- **Curious and proactive** with a solid grounding in biology and/or mathematical modeling  
*Particularly in cell biology, molecular biology, and omics, to address real-life clinical issues.*
- **Eager to learn** and use mathematical methods for the modeling of biological systems  
*Simulate virtual diseases and treatments with ODE, PDE, Monte-Carlo Simulations*
- **Willing to explore** and exploit large datasets and virtual populations  
*Apply machine learning, statistical analysis, and outliers detection*
- **Autonomous and self-motivated** with strong analytical and problem-solving skills  
*Find innovative solutions to science and engineering problems*
- **Responsive and capable** of facing time-sensitive challenges  
*Project management with client-facing opportunities are awaiting you*

## RESPONSIBILITIES

- **Contribute** actively to the creation of *in silico* pathophysiological models by
  - ◆ **Conducting** literature reviews on the biological system to model
  - ◆ **Creating** computational models (CM) of biological systems
  - ◆ **Calibrating and Validating** your CM based on extracted knowledge and data
  - ◆ **Integrating** your CM with others to build a complete model of the disease of interest
- **Run and analyze** large simulation results to answer the client's questions
- **Communicate** your results in scientific reports and presentations
- **Impact** the development of the company's simulation platform
- **Participate** in weekly and monthly project meetings and reporting

## QUALIFICATIONS

An engineer's degree or equivalent with:

- Mathematical background with knowledge in biology, biochemistry and/or pharmaceutical sciences
- General scientific programming experience (the language does not matter)
- A professional English level (written and oral)

As a bonus:

- Experience in mechanistic modeling (systems biology, PB-PKPD)
- Experience in modelling techniques (ODEs, PDEs, DDEs, Agent-based)
- Knowledge of clinical trials and drug development

## TECHNOLOGIES

We are looking for someone who knows most of the following technologies or is eager to learn/work with them:

- Unix environment
- Programming languages (Haskell, Python, R)
- Markup languages (Markdown, LaTeX)
- Miscellaneous (Git, bash)

## MISC

- Type: Internship or full-time job
- Contact: [recruitment@novadiscovery.com](mailto:recruitment@novadiscovery.com)
- How to apply: [Online Form](#)
- Starting date: Flexible