

## POSTDOCTORAL FELLOW IN COMPUTATIONAL BIOLOGY

The team MetaSys from the Systems Biology and Process engineering laboratory (LISBP, [www.lisbp.fr](http://www.lisbp.fr)) has been recently granted for EU- international collaborative project (i.e. C1Pro) including partners from Norway, Slovenia, France and Germany. C1Pro aims at applying systems and synthetic biology principles to cell factory development in order to harness methanol for biotechnological production of value-added chemicals. We are thus seeking post-doctoral researcher passionate about developing modelling tools to support the design and the optimisation of those microbes.

### Position description:

You will develop metabolic models and modelling tools to support the rational “shaping” of the metabolic network of *B. methanolicus* for production of targets chemicals from methanol. Your project will involve multiple heterogeneous datasets (i.e. transcriptomic, metabolomics and fluxomic datasets) to construct and validate genome-scale networks, make functional predictions and model biological processes. You will develop new computational methods and/or apply existing tools to examine those datasets. You will work in close collaboration with: (i) the test team who is generating the data to refine and validate your computational models and (ii) the strain engineering team who is leveraging your models to guide their design work.

### Position requirements:

- PhD in biology, computer science, statistics or related fields;
- Prior experience in computational biology with multiple of the following: NET analysis, flux balance analysis, genome scale models, principle component analysis, partial least squares regression, scripting, metabolic network reconstruction and simulation;
- Strong coding skills in Python, R or Matlab;
- Experience integrating heterogeneous datasets include transcriptomic, metabolomics and fluxomic data into models strongly preferred;
- Understanding of microbial metabolism, thermodynamics and kinetics;
- Strong written and oral communication skills

### Term and conditions:

The postdoc position is available early 2018 for 18 months with a possible extension. Salary will be based on experience and skills.

### Contacts:

To apply, please email: Stephanie Heux ([heux@insa-toulouse.fr](mailto:heux@insa-toulouse.fr)); attach CV, cover letter, summary of previous research, and contact information for referees.

