

We are looking for a  
**Post-doctoral researcher in Biostatistics**

**Topic: Bayesian statistical approaches in translational research**

Considering pre-clinical, pharmacokinetics and early biomarker data  
to support the clinical drug development

**Location:** Turin (Italy)

**Supervisors:** Dr Gaëlle Saint-Hilary (Servier, Politecnico di Torino)  
Prof Mauro Gasparini (Politecnico di Torino)

**Start:** October 2019

**Availability:** Full time

**Duration:** 1 year + renewable 1 year

**Gross salary:** ~ 1600 euros/month

## About the role

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This position is based in Turin, within the Department of Mathematical Science (DISMA) of the Politecnico di Torino (PoliTo) in Italy. It is proposed jointly by the DISMA and Servier, an international pharmaceutical company with its headquarters near Paris, in Suresnes (France).

Your mission is to experiment and develop **Bayesian statistical approaches in translational research**. Translational research is an integral part of the drug development with the overall aim to de-risk and maximize its success by determining the right indications, the right biomarkers, the right dosing schedules and the right therapeutic combinations. The consideration of pre-clinical data from animal studies, pharmacokinetics and biomarker data is critical to support early decision-making during the drug life-cycle.

This information could be used for example to elicit informative priors on the human dose-toxicity parameters, to be incorporated in the analysis of clinical dose-escalation trials within a full Bayesian framework. It could also permit to calculate the probability of success of future clinical studies prior to their start.

Moreover, exploring the accumulated data could generate new hypotheses regarding the future drug development such as new indications, patient subgroups with greater benefits from the drug, or possible synergies between treatments supporting the development of combination-therapies.

You will work in collaboration with Servier, with therefore the chance to work on real research questions and actual case-studies. You will have the opportunity to present your research results at Servier and at statistical conferences. As member of the DISMA, you will participate to the department activities, which may include participating to seminars, teaching and student supervising.

## Profile

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- PhD degree in Mathematics/Statistics with good skills in Bayesian statistical analysis
- Experience in and/or knowledge of the drug development
- Expertise in R programming language and in Bayesian statistical languages (preferably Stan)
- English fluent

## About Servier

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Servier is an **international pharmaceutical company** governed by a non-profit foundation, with its headquarters in France (Suresnes). With a strong international presence in 149 countries and a turnover of 4.2 billion euros in 2018, Servier employs 22 000 people worldwide. Entirely independent, the Group reinvests 25% of its turnover (excluding generics) in research and development and uses all its profits for development. Corporate growth is driven by Servier's constant search for innovation in five areas of excellence: cardiovascular, immune-inflammatory and neurodegenerative diseases, cancer and diabetes, as well as by its activities in high-quality generic drugs. Servier also offers eHealth solutions beyond drug development.

More information: [www.servier.com](http://www.servier.com) and [www.servier-campus.com/en](http://www.servier-campus.com/en)

**Dr Gaelle Saint-Hilary** is Statistical Methodologist at Servier, in collaboration with PoliTo.

## About DISMA (PoliTo)

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The Department of Mathematical Science (DISMA) is the point of reference in the Politecnico di Torino (PoliTo) for Mathematical Sciences and their interaction with Engineering and Architecture. DISMA promotes, coordinates and manages fundamental and applied research, courses, technology transfer and the services for the local community in the fields of mathematics, statistics, mathematical modelling and their multi-faceted interaction with basic and applied sciences.

More information: <http://www.disma.polito.it/en>

**Prof Mauro Gasparini** is Full professor of Statistics and Head of the DISMA.

## Main reference

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Zheng, H., Hampson, L. V., Wandel, S. (2019). A robust Bayesian meta-analytic approach to incorporate animal data into phase I oncology trials. *Statistical Methods in Medical Research*. <https://doi.org/10.1177/0962280218820040>.

## How to apply

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Please send your CV and cover letter to [gaelle.saint-hilary@servier.com](mailto:gaelle.saint-hilary@servier.com).