**Postdoctoral Fellowship in Modelling and Simulation in Life and Materials Sciences**

**Job Offer**

| Topics: | Bayesian analysis with Hamiltonian Monte Carlo methods in biomedical applications. The selected candidate will work on Bayesian analysis with Hamiltonian Monte Carlo methods in biomedical applications under the supervision of Elena Akhmatskaya in collaboration with the members of MSLMS as well as the Researchers in the Joint BioEnergy Institute (JBEI), US DOE, and the Breast Cancer Stem Cells Lab at CIC bioGUNE. The applications of interest include metabolic flux analysis and drug sensitivity prediction. The Hamiltonian Monte Carlo (HMC) and the Mix & Match HMC implemented in BCAM in-house software HaiCS (Hamiltonians in Computational Statistics) will be used as primary sampling tools in Bayesian analysis and developed further. |
| PI in charge: | Elena Akhmatskaya |
| Salary and conditions: | The gross annual salary of the Fellowship will be 28.000 - 32.000€. It will then be on your own responsibility to make your yearly income declaration at the Bizkaia Treasury Agency. There is a moving allowance for those researchers that come from a research institution outside the Basque Country from EUR 1.000 to EUR 2000 gross. |

*Free access to the Public Health System in Spain is provided to all employees.*

| No Positions offered: | #1 |
| Contract and offer: | 2-year contract |
| Deadline: | April 3rd 2017 15:00 CET (UTC+1) |

**Scientific Profile Requested**
### Requirements:
- Promising young researchers.
- Applicants must have their PhD completed before the contract starts. PhD degree preferable in Applied Mathematics, Statistics, Computational Biology / Physics or Computer Sciences.

### Skills and track-record:
- Good communication and interpersonal skills.
- Ability to effectively communicate and present research ideas to researchers with different background (mathematicians, biologists, and medical doctors).
- Ability to clearly present and publish research outcomes in spoken (talks) and written (papers) form.
- Good command of spoken and written English.
- Good programming skills in R / Matlab / Julia / C / C++.

### Scientific Profile:
The preferred candidate will have:
- Research experience in Bayesian inference, MCMC, Hamiltonian Monte Carlo, importance sampling.
- A background in numerical methods for PDE and mathematical modelling is desirable.
- A taste for interdisciplinary applications.

### Application and Selection Process

#### Formal Requirements:
The selected candidate must have applied before the application deadline online at the webpage [http://www.bcamath.org/en/research/job](http://www.bcamath.org/en/research/job)

The candidates that do not fulfil the mandatory requirements will not be evaluated with respect to their scientific profile.

#### Application:
Required documents:
- CV
- Letter of interest
- 2 recommendation letters
- statement of past and proposed future research (2-3 pages)

#### Evaluation:
Based on the provided application documents of each candidate, the evaluation committee will evaluate qualitatively: the adaption of the previous training and career to the profile offered, the recommendation...
IC2016_Winter BCAM
International Call

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<th>Incorporation:</th>
<th>September 2017 or as soon as possible thereafter.</th>
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<td><em>The BCAM postdoctoral contract will start when the selected candidate has finished the PhD, i.e. after dissertation defence.</em></td>
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letters, the main results achieved (papers, proceedings, etc.), the statement of past and proposed future research and other merits; taking in account the alignment of these items to the topic offered.