



**UNIVERSIDADE DE LISBOA**  
**CENTRO DE MATEMÁTICA E APLICAÇÕES FUNDAMENTAIS**

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**Two Post-Doctoral/Phd positions in Mathematical Biology financed by the EU Project DENFREE under Framework Program 7 (FP7).**

The Mathematical Biology Group at the Centro de Matemática e Aplicações Fundamentais (CMAF), Lisbon University offers two positions in the DENFREE project of initially 24 months and afterwards renegotiable for another 24 months, depending on performance and on funding availability. The positions in the area of modeling and data analysis applied to dengue fever epidemiology.

In the DENFREE project, with large emphasis on medical research under the heading of Pasteur Institute, Paris, the CMAF group under the leadership of Nico Stollenwerk, the Principal Investigator of the Group of Mathematical Biology, will manage a work packed on mathematical modeling of spreading of dengue fever and its data analysis of potentially complex dynamics. The main objectives of DENFREE are (1) to identify key factors determining dengue transmission, outcome of infection and epidemics; (2) the development of less-invasive diagnostic tools to detect asymptomatic infections; (3) to evaluate the risk of dengue emergence into non-endemic areas by using Asian communities as a model.

We offer two positions from which one should cover dengue-laboratory notification experience and mathematical modelling and the other position should cover mathematical modeling and statistical data analysis including parameter estimation and model evaluation of complex epidemiological systems up to deterministic chaos.

Suitable candidates should hold a degree in either biology, mathematics, computer science or a related field. She or he should also have completed (or be about to complete) a PhD in Population Biology, Life Sciences, Mathematics, or Physics, with the subject of the thesis relevant to the project description above. Ideally, candidates would have possible overlap between the two position profiles and should have communication skills between dengue laboratory, mathematical modeling and data analysis.

DENFREE envisages a starting date of the 1.1.2012 (final negotiations are still ongoing) and the positions should be ideally filled from month 1 of the project on. Payment will be in accordance to the usual EU projects' conduct and depending on the academic experience of the candidate.

Applications are welcome from now on and no later than 17.12.2011. Applicants should send a detailed CV, a presentation letter and a copy of their most relevant publications. We may require an interview with candidates.

Online applications should be send to the Mathematical Biology Group in CMAF ([biomathgroup@gmail.com](mailto:biomathgroup@gmail.com)) or to Nico Stollenwerk ([nico@ptmat.fc.ul.pt](mailto:nico@ptmat.fc.ul.pt)). In case of postal applications, these should be send to Nico Stollenwerk, Av. Prof Gama Pinto, 2. Postal code:1649-003, Lisbon, Portugal.