



## Early Stage Researcher/PhD Student in Cancer Systems Biology

### “Constructing and validating systems modeling tools as novel prognostic markers in melanoma”

**Location:** Institute of Cell Biology and Immunology at the University of Stuttgart (Germany), with intended secondments to international academic collaborators and private sector partners in Switzerland (Prof. Hans Uwe Simon, University of Berne) and Ireland (Dr. Mairin Rafferty, Oncomark Ltd., Dublin).

**Reporting to:** Dr Markus Morrison (Rehm) (Head of Institute from April 1st)

**Availability:** The position is available from **April 1<sup>st</sup> 2016**, initially for 2 years, with the possibility for extension. The recruited researcher will have the opportunity to register for doctoral studies.

#### **Project background and description:**

Building on prototype tools, we will develop mathematical models of autophagy signalling and will analyse autophagic processes in clinical samples of primary melanoma by quantitative immunohistochemistry. In addition, quantitative biochemical data will be collected from in vitro melanoma cultures. Mathematical modelling techniques, including deterministic and data-driven modelling approaches, will be applied to develop and validate an innovative prognostic systems-biomarker panel for patients diagnosed with early stage melanoma. Through associated projects, additional data may become available for further analysis and modelling tasks. Research and Training Secondments to international academic and private sector partner are a central component of the programme. The project is funded by the European Union through MEL-PLEX, a pan-European academic/private sector research training network in the fields of Cancer Cell Biology, Translational Cancer Research and applied Systems Biology/Systems Medicine (<http://www.mel-plex.eu/>).

Recruited researchers must participate in training courses and events organised by the network. These aim to develop key research and transferable skills to allow researchers to navigate confidently between academic, clinical and private sector research environments.

**Person Specification and Qualification:** The candidate should hold a Master’s degree or similar and have a background in the field of systems biology, mathematical modelling, bioinformatics or related disciplines. Programming skills are required (*e.g.* MatLab or similar software environments). Good written and communication skills and a high level of motivation and commitment are required. (S)he needs to be able to integrate into a highly interdisciplinary research environment. Candidates can be of any nationality, but are required to undertake transnational mobility.

The candidate needs to be within the first four years of his/her research career. Applications from candidates who possess a doctorate will not be considered.

**Eligibility criteria:** At the time of recruitment, the candidate must **NOT** have resided or carried out their main activity (work, studies, etc.) in Germany for more than 12 months in the 3 years

immediately prior to start of the project. Short stays such as holidays and/or compulsory national service are not taken into account.

**Salary:** The successful candidate will receive a competitive Marie S. Curie Early Stage Researcher living and mobility allowance.

**Host institution:** The University of Stuttgart is one of the top nine leading technical universities in Germany. The Institute of Cell Biology and Immunology is part of the Faculty of Energy-, Process- and Biotechnology and provides state-of-the-art equipment, competitive projects, and the possibility to work in an inspiring interdisciplinary and collaborative environment. The institute is partner in the Stuttgart Research Center Systems Biology (SRCSB), which provides a platform and support for joint project work of experimental, modelling and simulation groups.

<http://www.uni-stuttgart.de/izi/institut/index.en.html>

<http://www.centersysbio.uni-stuttgart.de/Research/index.html>

**Application procedure:** Candidates must send a full CV, a motivation letter including a description of previous research experiences and contact details or recommendation letters of two 2 referees to the MEL-PLEX programme manager at [melplexETN@rcsi.ie](mailto:melplexETN@rcsi.ie).

**For more information about the MEL-PLEX Programme and its projects go to:**

<http://www.mel-plex.eu/>

**Closing date:** Applications must be received by **29<sup>th</sup> of February 2016, 5pm (GMT)**.

**Other information:**

Further details about the programme can be obtained from MEL-PLEX Programme Manager Dr Isabela Aparicio at [isabelaaerriu@rcsi.ie](mailto:isabelaaerriu@rcsi.ie)

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