

**Job opening for a mathematical biologist (post-doctoral level) to model the pathophysiology associated with the Metabolic Syndrome.**

*NCSB vacature CMSB  
KoWvD, 12092008*

**Title**

Modeling the Metabolic Syndrome.

**Research**

This 5 year project concentrates on the development of a mathematical model describing carbon mass fluxes and concentrations at the whole body and organ level. The starting point will be extensive data sets from specific mouse models of the Metabolic Syndrome under both physiological as well as pathological conditions. The ultimate aim is to develop mathematical models that can describe progress of the Metabolic Syndrome disease process on relevant timescales (i.e. days/weeks in murine MetS models). This novel line of research is a direct extension of existing and successful research on the in vivo fluxes of fatty acid and glucose and their pathophysiological consequences in mouse models.

**Job description**

In close collaboration with a “wet” experimental post-doc, PhD-student and technician, the applicant will be responsible for the implementation of mathematical modeling approaches within the existing in vivo research on the Metabolic Syndrome in mouse models. The modeling work will be supported by core infrastructure within the NCSB as well as by close collaboration with the TU Eindhoven and presents an opportunity to initiate a novel and unique line of research.

**Location**

The modeling research constitutes a novel research line within the Leiden University Medical Center departments of Human Genetics and Endocrinology and is embedded in the NGI-funded Center for Medical Systems Biology (CMSB) and Netherlands Consortium for Systems Biology (NCSB). Although Leiden will be the home base, the collaborative and multidisciplinary nature of the project will require regular travel within the Netherlands and abroad.

**Requirements**

Candidates should fulfill the following criteria.

- \* Ph.D. in biology, biophysics or engineering
- \* able to combine experimental and mathematical modeling approaches
- \* able to communicate with scientists in biology and physics

**Conditions of Employment**

This position requires expertise in mathematical modeling approaches.

You will be employed by the department of Human Genetics of the LUMC for a fixed

period of 5 years. Your salary will be up to a maximum of 3310 Euro gross per month, depending on your level of experience.

**Contact**

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**Applications**

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Applicants should send a CV, list of publications and the names and addresses of at least two persons that can be approached to obtain further information.

**Closing time**

Oktober 31, 2008