The NANO Center of Excellence at the University of Antwerp in Belgium (www.nano.ua.ac.be) is recruiting a PhD student to join a research project on structural characterization and growth modeling on atomistic scale of metalized biomolecular templates. This project will combine the use of state-of-the-art electron microscopy and modern molecular dynamics and ab-initio modeling techniques.

Tasks:

The PhD candidate will be expected to

- Acquire tomographic tilt series of different types of soft matter-hard matter nanohybrids using different electron microscopy techniques
- Use different algorithms and software packages to obtain the 3D structure of the material
- Be able to understand the local interactions in the biophysical system and implement classical (MD) and quantum (DFT) theoretical simulations
- Show enough scientific independence to interpret the obtained data, define necessary strategies and ultimately solve given materials science problems

Your profile:

- Master of Science (Physics, Materials Science, Chemistry, Biology)
- Background in electron microscopy is an asset
- Programming skills are needed
- An excellent command of the English language is an absolute must

We offer:

- An exciting project on the cutting edge of nanotechnology
- A stimulating and multidisciplinary research environment
- A very competitive scholarship, suiting the complexity of the research

Project term:

Enrolment will start in January 2010. You will be appointed for a period of one + two + two years (maximum). Note however that after each term an evaluation will take place.

Information and application:

Additional information about this Ph.D. vacancy can be obtained from

Prof. S. Bals, tel. +32-3-2653284, Sara.Bals@ua.ac.be,
University of Antwerp, EMAT, Groenenborgerlaan 171, B-2020 Antwerp, Belgium,
http://www.emat.ua.ac.be,

and/or from

Prof. M. Milosevic, tel. +32-3-2653662, Milorad.Milosevic@ua.ac.be,
University of Antwerp, CMT, Groenenborgerlaan 171, B-2020 Antwerp, Belgium,
http://www.cmt.ua.ac.be.

The applicants should send their Curriculum Vitae, the names and contacts of two recommending scientists, a summary of their M.Sc. thesis and a cover letter stating their motivation to Prof. S. Bals and Prof. M. Milosevic. Only complete submissions will be considered.