Serenade
Safe(r) Ecodesign Research and Education applied to nAnomaterial DEvelopment.

18 months Post-doctoral associate position at the LabEx SERENADE at Aix Marseille University (France, Aix en Provence).

The LabEx SERENADE (Laboratory of Excellence) proposes an integrated scientific and educational approach to develop new concepts and tools for the Safer and Ecological Design in nano-manufacturing processes and products.

SERENADE is seeking a post-doctoral researcher with computer modeling and web tool development experience to work on a nanomaterials database in the context of environmental engineering/environmental science.

The objectives of the Serenade database are to develop an integrated database and associated visualization tools. It will allow the SERENADE consortium to visualize and analyze their own data but also to integrate them with other datasets. The role of multiple parameters in predicting nanomaterial behavior in different systems would be investigated as well as the potential risks with nanomaterials on the environment, human health or the end of life of nanoproducts.

The development on the database will sidetrack the work and the structure of the CEINT (Center for the Environmental Implications of Nanotechnology at Duke University) database, designed for the comprehensive collection, management and analysis of integrated data across the CEINT center, literature and partner datasets. Moreover, by design, the database will be fully integrable and interoperable with other European related databases such as the eNanomapper European database.

We offer a 18 months post-doctoral position in order to implement the SERENADE database and to collaborate with the CEINT's group and other European database projects. This position offers the opportunity for international collaboration and global visibility within the nanoinformatics field.

The ideal candidate should have a PhD with an interdisciplinary data science background and research experience in the following areas: Web application programming skills, programming in Matlab and C++/Fortran, relational database design and associated skills in importing and manipulating large data sets from a variety of formats, and advanced Excel skills. Experience with modelling or analysis of nanomaterial, chemical and/or environmental study datasets is especially welcome, as are skillsets in numerical modelling, probabilistic modelling, and design and utilization of Bayesian Networks.

Please send CV, statement of research interests and the names and addresses of three references to: Jérôme Rose, rose@cerege.fr or Camille de Garidel, cgaridel@cerege.fr