

Our theoretical and computer modeling group (<http://elena.emac.cwru.edu>) is looking for a **postdoctoral researcher**. The successful candidate is expected to have considerable experience in large-scale (e.g. non-atomistic) computer simulations of polymers (Monte Carlo or Molecular Dynamics) as demonstrated by one or more published papers in this area. It is essential that the candidate be able to develop new code(s) to test different models for the behavior of complex polymer systems including polymer-polymer and polymer-small molecule interactions.

The successful candidate will join a growing research initiative in the area of reversibly associated polymers and targeted drug delivery. The first research project concerns the equilibrium behavior, surface and dynamic properties of associated polymers. In the second project we are modeling polymer nanoparticles in order to optimize drug incorporation rate and targeting efficiency via multiple ligand-receptor interactions. To study these complex polymeric systems we apply a combination of computational methods (Monte Carlo and Molecular Dynamics) with analytical models. The predictions of theoretical models and computer results will be aimed to explain the experimental data obtained by our collaborators (or known in literature), to make recommendations concerning the design of future experiments and/or the design of new polymeric materials to achieve specific desired goals. Therefore interpersonal skills and willingness to work in a team that may include experimentalists are of considerable importance as well. The expected start day for the position is as soon as October 2006.

Interested candidates are encouraged to contact us by e-mail ([eed@cwru.edu](mailto:eed@cwru.edu)) or phone (216 368 6373) first before submitting a formal application.