

Postdoctoral research fellow position in Systems Biology (UMass Lowell, MA USA)

A postdoctoral position in systems biology is available at the Yoon Lab (Systems Biology Research Group) in the Department of Chemical Engineering, University of Massachusetts Lowell (MA, USA). The research group is a core part of the Massachusetts BioManufacturing Center (www.uml.edu/mbmc) and Biopharmaceutical Consortium (www.uml.edu/bpgc). Currently we are looking for an experienced and highly motivated post-doctoral fellow to support our ongoing research projects. The appointment is funded through federal/industrial funding aimed at developing multi-omics analytics for biotherapeutic development and manufacturing with phenotype characterization of mammalian CHO cells. One of the following projects will be assigned.

- Genomics/transcriptomics profiling of mammalian cells for phenotype characterization
- Metabolic flux analysis and metabolomics profiling of mammalian cells for phenotype characterization
- Proteomics profiling of mammalian cells for phenotype characterization
- Multi-scale modeling of mammalian cells for phenotype characterization for prediction and control of productivity and product quality
- Trace element influence mechanism on mammalian cell behavior

The position is available immediately, but starting date can be changed to accommodate the best-suited candidate. The initial position is for one year, with a second year of employment dependent upon performance in the first year.

Work for this position will largely involve developing and analyzing large multi-omics (gene expression, cDNA sequence, protein, metabolites, glycosylation, trace element profiling) datasets of media and cell-culture samples. The candidate will ideally have experience using bioinformatics (chemometrics) tools to manipulate large sequence datasets and/or hands-on experience with CHO cells. In addition, the candidate will also have the opportunity to get involved in several other on-going projects in the research group.

Major responsibilities for this position include experimentation, data collection, analysis and writing of manuscripts. Progress in these areas will determine continuation of the appointment. The position will also involve some student mentoring, organization of laboratory activities related to the project, and weekly meetings with the PI and project collaborators.

The University of Massachusetts Lowell is committed to increasing diversity in its faculty, staff, and student populations, as well as curriculum and support programs, while promoting an inclusive environment. We seek candidates who can contribute to that goal and encourage you to apply and to identify your strengths in this area.

- Ph.D. in Chemical Engineering, Biological Sciences, Biochemistry, Computer Science or related field (must have Ph.D. by the time of appointment)
- Fluent in English
- Demonstrated experience writing scientific manuscripts
- Ability to think and work independently, and also to work well in a group

- A strong interest in systems biology
- The ability to work effectively with diverse groups
- Experience with the JMP, SIMCA, Matlab, R statistical package is also a plus
- Experience with multi-omics
- Experience with analyzing Illumina or other next-generation sequence data (e.g., assembly and annotation methods)
- Experience and comfort with computational skills, or willingness to self-teach, and the use, modification and implementation of bioinformatics scripts in languages such as Python and Perl preferred

To apply, combine the following documents into one PDF file: cover letter, CV, sample scholarly work (or publication), description of scientific achievements (~one page), publication list, contact information for three references. Send this PDF file as soon as possible to: seongkyu_yoon@uml.edu. Review of applications will begin immediately and continue until the position is filled. However, the position may close when an adequate number of qualified applications are received.

Seongkyu Yoon, PhD
Assistant Professor of Chemical Engineering
Director Massachusetts Biomanufacturing Center
Coordinator of Biopharmaceutical Consortium
Univ. of Massachusetts Lowell
1 University Ave., Lowell MA 01854
978-934-4741 (O), seongkyu_yoon@uml.edu
<http://seongkyu-yoon.wiki.uml.edu>