

A research associate level **Developmental Biology/Cell Biology/Biochemistry Experimentalist** to develop quantitative experiments on development and developmental defects induced by toxicological exposure. The applicant will conduct experiments to provide parameters for and to validate multi-cell simulations of environmental perturbations of early development integrating reaction-kinetic models of regulation and GGH models of cell behaviors. The applicant should have Ph.D. level expertise in experimental cell or developmental biology, pharmacology, toxicology, cell biology, or biochemistry and experience developing simulations of at least one sophisticated biological phenomenon (e.g. regulatory networks, biomechanics, organogenesis,...). The position requires the ability to independently digest literature related to cell regulation, cell signaling and cell behavior to extract the underlying biological models; to communicate these biological models to computational biologists; to identify and recognize missing information in the literature and to design experiments to explore regulatory pathways; to study /model the physiological consequences of toxicological perturbations. Expertise in angiogenesis, somitogenesis or gastrulation in either zebrafish or chick particularly helpful. Microscopy experience essential. Experience in image analysis also essential. Expertise in biomechanics or bioengineering is a plus. The candidate should have at least M.S (Ph.D preferred) degree in either biology, chemistry or biophysics. Knowledge of experimental lab protocols and significant lab experience required.

**Note:** All applicants will work in an interdisciplinary team including toxicologists, geneticists, developmental biologists, computer-scientists, physicists and mathematicians to develop large-scale approaches to understanding the principles of development underlying teratogenicity, normal development and developmental diseases like cancer. Interest in regenerative biology and tissue engineering appreciated. Starting salary range will be between \$30,000 and \$70,000 per year plus standard health insurance and retirement benefits. Salary dependant on experience and qualifications. Initial appointment for one year beginning Dec. 1, 2009, renewable for up to three years depending on performance and funding availability. Send CV, research summary and 2 papers or projects, along with a brief statement of relevance of background to position applied for, to Prof. James A. Glazier, [glazier@indiana.edu](mailto:glazier@indiana.edu) The Biocomplexity Institute Multidisciplinary Science Building (MSP) 1 Simon Hall 047