University, Biocomplexity Institute, Bloomington,

Background: Modeling is becoming an integral part of contemporary b
Glazier-Graner-Hogeweg (*GGH*) model as implemented in the modelin
CompuCell3D allows researchers to rapidly build complex models of multi
in development and disease with user-selectable resolution, fro
compartmental models to continuum models of tissues. CompuCell3D's us
BioLogo and Python model-specification allows compact description
publication, validation and sharing. CompuCell3D is open source, allo
extend, improve, validate, modify and share the core software. For more
the GGH and CompuCell3D, please visit: http://www.compucell3d.org/

Goal: By the end of the week, participants will have implemented a bas
the particular biological problem they work on. Post-course support and c
be available to continue simulation development.

Topics: Introduction to GGH modeling. Applications of GGH modeling a
published work. Introduction to CompuCell3D. Python and BioLogo scrip
model building. Extending CompuCell3D. Building a basic simulation of you

Format: The workshop will consist of a limited number of lectures and exte
computer tutorials.

**Instructors: James A. Glazier, Maciej Swat, Benjamin Zaitlen, Abb
Nikodem Poplawski, Randy Heiland** (Biocomplexity Institute, Indiana Uni

Target Audience: Experimental Biologists, Medical Scientists,
Mathematical Biologists and Computational Biologists from advanced und
senior faculty, who have an interest in developing multi-cell computatio
learning how such models might help their research. No specific p
mathematical experience is required, though familiarity with some modeli
(e.g. Mathematica®, Maple®, Matlab®) and how to represent basic concep
and chemical reactions mathematically, would be helpful.

Fees and Support: The basic registration fee of $500 will cover worksho
workshop materials and lunches. Partial support for registration, travel a
may be available.

Application and Registration: Enrollment is limited and by applic
apply, please send a c.v., a brief statement of your current research inter
specific problem you would like to model. Students and postdocs should
letter of support from their current advisor. If travel support is being rec
include a statement documenting need and amounts requested. Ple
application materials electronically to Maciej Swat (mswat@indiana.edu)
2008.

Facilities: Participants will have access to an OSX cluster and will be ab