FSU Department of Biological Science presents

Integrating Genotype and Phenotype: a planning workshop

A major challenge of biology is to integrate genomic-level data with the phenotype of the whole organism. The Department of Biological Science at Florida State University will be hiring a group eight molecular and evolutionary geneticists to work on this problem. We plan to emphasize the study of epigenetic inheritance, as we already have a nucleus of interest in this burgeoning research area. The FSU organizers realize that there are scientific and cultural barriers to building a truly interactive group. During this workshop, we would like to address questions such as "How do we get molecular biologists to listen to evolutionary biologists, and vice-versa." "Once we are listening, what can we do together that we can't do alone?"

FRIDAY FEBRUARY 2
Dirac 499, Florida State University

8:30: Joe Travis, Dean of Arts and Sciences: Welcome

8:50: David Houle / Hank Bass: Vision for the Cluster and the Workshop

9:15: Mike Lynch, Indiana University
The Frailty of Adaptive Hypotheses for the Origins of Organismal Complexity

10:00: Steve Henikoff, Hutchinson Cancer Research Center
Epigenetic profiling of plant and animal genes

10:45: BREAK

11:00: Gunter Wagner, Yale University
How to find connections between genetic evolution and morphological evolution?
Making Molecular Evolution and Developmental Biology talk to each other

11:45: DISCUSSION

12:30 LUNCH

2:00: Tim Bestor, Columbia University Medical Center
Comparative Biology of Genomic Methylation Patterns

2:45: Trudy Mackay, North Carolina State University
The genetic architecture of complex traits: Lessons from Drosophila

3:30: BREAK

4:00: Rich Jorgensen, University of Arizona

Evolutionary and Functional Diversification of the Epigenome, and A Paragenetic Perspective on the Role of RNA Silencing in the Biology of Plants

4:45: DISCUSSION

5:30: Depart FOR DINNER:

7:30: Open reception

SATURDAY FEBRUARY 3
Pavilion room at Wakulla Springs Resort

9:00: Rudy Raff, Indiana University
Evolution of the link between genotype and phenotype: Conservative genic regulation with radical changes in development.

9:45: Dirk Schübeler, Friedrich-Miescher-Institute for Biomedical Research
Targets and function of epigenetic marks: Insights from global analysis

10:30: BREAK

11:00: Dave Gilbert, Florida State University
What can replication tell us about chromosome evolution?

11:45: OPEN DISCUSSION

1:00 – LUNCH – Wakulla Springs Lodge

~3PM – boat tour of Wakulla / hiking, etc.

Discussion continues over drinks and dinner