NEWS RELEASE

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Two Distinguished NC State Professors Named AAAS Fellows

FOR IMMEDIATE RELEASE


Dr. Linda Hanley-Bowdoin

Two North Carolina State University scientists have been elected Fellows of the American Association for the Advancement of Science (AAAS).

Dr. Linda Hanley-Bowdoin, William Neal Reynolds Distinguished Professor of Biochemistry and Genetics, and Dr. Michael Purugganan, William Neal Reynolds Professor of Genetics, are faculty members in NC State's College of Agriculture and Life Sciences, and are among 376 scientists to be honored by AAAS.

AAAS is the world's largest general scientific society, and the publisher of the journal *Science*. Each year, the AAAS Council elects members whose efforts on behalf of the advancement of science or its applications are scientifically or socially distinguished. Fellows are nominated by their peers and undergo an extensive review process.


Dr. Michael Purugganan

Hanley-Bowdoin was recognized for her distinguished contributions in providing valuable insight into basic plant mechanisms using geminiviruses as models for plant DNA replication, transcription and cell cycle regulation.

For nearly 20 years, Hanley-Bowdoin has studied geminiviruses, destructive plant pathogens that cause severe crop losses worldwide, and how they replicate their small DNA genomes in plants. Her research has laid the groundwork for understanding

viral and host components involved in geminivirus replication at a molecular level, and established that geminiviruses induce the synthesis of host replication machinery by reprogramming plant cell cycle and developmental controls. Her current research uses a combination of genomic and high-throughput technologies to characterize plant transcriptome changes in response to viral infection, to develop broad-based disease resistance strategies, and to identify plant chromosomal replication origins.

Purugganan was selected for his contributions to the field of plant molecular evolution and for studies of functional evolution in *Arabidopsis*, a model plant.

Widely acknowledged as a leading plant molecular population geneticist, Purugganan has made major scientific contributions to the evolutionary genetics and ecology of plant adaptations both in wild and domesticated crop species. A few of his many important contributions are the first molecular evidence that selfing in plants evolves by positive selection; demonstration of the importance of molecular regulatory interactions in the evolution of life history traits; and elucidation that the early stages of duplicate gene evolution in genomes are driven by positive selection.

Hanley-Bowdoin and Purugganan will be recognized at the AAAS annual meeting in St. Louis, Mo., in February 2006.

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