

News & Events

Leaders in Science

A stellar group of scientists converged at The Neurosciences Institute in early March to participate in the 73rd regular meeting of the Associates of the Neurosciences Research Program.

The group of 36 distinguished scientists interested in brain function forms an informal college that is a resource for the Institute in scientific matters. Each year, about five new members join the group and five become Honorary Associates. At each meeting, the new members present lectures to introduce themselves scientifically.

This year, the new Associates included Timothy Bliss (National Institute for Medical Research, London), who is one of the discoverers of the phenomenon of long-term potentiation, thought to be the basis of synaptic plasticity in the brain.

Markus Meister (Harvard University) reviewed his research on how the retina works. Richard Andersen (California Institute of Technology) discussed the neurophysiological mechanisms of decision-making. Gyorgy Buzsaki (Rutgers) reviewed the role of oscillations in electrical activity in coordinating the functions of the hippocampus and related areas, which play key roles in memory. Simon Laughlin (University of Cambridge) discussed the energy requirements of nerve cells in the context of evolution and selection. Kenneth Kendler (Virginia Institute for Psychiatric and Behavioral Genetics) reviewed the current status of the genetics of psychiatric disorders, particularly schizophrenia, and the roles of genetics and environment in alcohol and drug addiction.

Other presentations covered a wide range of topics, from molecular sensors of mechanical stress in cell membranes to the development of language skills in human infants.



Emergent Improvisation

In February, The Neurosciences Institute hosted one of the first public performances of "The Emergent Improvisation Project," an innovative dance and music performance that connects improvisation with brain science.

Under the direction of Susan Sgorbati of Bennington College, the dance performance demonstrated how people naturally form networks together when interacting, similar to the way our brain forms connections and networks. The dancers were inspired by the Institute's approach to brain science and commissioned the project to study their own art.

"In linking the creative work of art-making to the emergent processes evident in nature, I have found a basis for a rich and textured inquiry into how systems come together, transform, and reassemble to create powerful means of communication and exchange," Sgorbati explains.

"The research and practice of what I have named Emergent Improvisation investigates the specific relationship between dance/music improvisation and the science of complex systems."

Both the music and the dance were improvisational. The dancers worked together on this project for the first time only a few days before the actual performance, and they worked through a series of pieces that evolved naturally as they began moving and dancing together.

This new work was a co-commissioning project by the Flynn Center for the Performing Arts in partnership with Bennington College, The Neurosciences Institute, New England Complex Systems Institute, and the National Performance Network Creation Fund, and is sponsored by the Doris Duke Charitable Foundation, Ford Foundation, Altria, and the National Endowment for the Arts. Additional support came from the Jerome Robbins Foundation, Bumper Foundation, and Bennington College.



NPN Partners

Emergent Improvisation

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Flynn Center for the Performing Arts

NPN Creation Fund

Pictured: Katie Martin, Zornitsa Stoyanova, Jaamil Kosoko, Carson Efird

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