

December 13, 2007

RIKEN, Hokkaido University to set up research center to study 'molecular-informational life science'

Cooperation agreement opens door to research in exciting new field

The field is expected to be an important one in years to come, and facilities are being built at four bases - RIKEN, Kyushu University, Osaka University and now Hokkaido University - to conduct advanced research, as well as for personnel training.

Beyond the molecular materials field, researchers will study the construction of maneuverable proteins and the like, produce nanomachines, and build an autonomous dispersed information network.

They will also work on a control mechanism to provide nanomachines with sensor and judgment functions, and allow it to adapt to its surroundings. Ultimately, the object is to produce nanosize robots that can travel autonomously within a living organism. While inside, they will be able to perform various operations, such as removing cancerous tumors, and this will open the door to new disease treatments in which medications are delivered directly to the affected parts.

In the molecular information field, one project will study the development of the autonomous dispersed information network of the slime mold. These amoeba-like organisms have been found to have a primitive form of intelligence, and can adapt to changing circumstances and even find their way through a maze.

For more information, please contact:

RIKEN Public Relations Office
Email: koho@riken.jp