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## Naoko Mizuno is EMBO Young Investigator

The European Molecular Biology Organization EMBO stands for European cutting-edge research in the life sciences. It supports young, talented researchers in their career and specifically promotes the national and international scientific exchange. Together with 22 young scientists, Naoko Mizuno, Research Group leader at the Max Planck Institute of Biochemistry (MPIB) in Martinsried near Munich, was granted the EMBO Young Investigator Award. For three years, the winners will receive 15,000 EUR per year for their research and individual benefit in various science-related fields. The successful scientists were selected from 174 applicants and come from ten different countries.

Cells take nutrients from their environment mostly via diffusion or transport them through the membrane channels. However, some molecules or whole cells are too large. They are enclosed in vesicles and gated in these membrane vesicles inside the cell. Naoko Mizuno wants to understand this process, called endocytosis, in detail. Therefore, she combines and advances methods of biophysics and structural biology. Her key competences are X-ray structural analysis and imaging methods. "The endocytosis is a highly dynamic process, in which incessantly vesicles get formed and decomposed," says Mizuno. "It is one of the major pathways of cells that helps sorting and recycling of cellular proteins. However it is also used by viruses and other pathogens to invade cells." Her research focuses the question, how the cell membranes, virtually plane, can form curved structures that later become vesicles. As already known, it does not happen spontaneously: The membrane must be actively stabilized.

The EMBO Young Investigator Programme was launched in 2000 to reward the best European young scientists in molecular biology and to promote them.



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#### **Caption:**

Naoko Mizuno © MPI of Biochemistry

#### **Further information**

http://www.embo.org/news/press-releases/press-releases-2015/twenty-three-researchers-recognized-as-embo-young-investigators

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