51st NIBB conference
New Aspects of Gene Amplification-Mechanisms and Biological Function

Organizing Chair : Takehiko Kobayashi
November 5 (Sat) - 8 (Tue), 2005

Gene amplification not only results in genome alteration, it also plays wide-ranging roles in many biological functions. In multicellular organisms, it is observed in many stages of the life-cycle: development, differentiation, senescence, and tumorgensis. In unicellular organisms, it is one of the main strategies for adaptation to surroundings. Moreover, it is well-known that gene amplification has played critical roles in evolution.

Despite its involvement in these important biological functions, gene amplification has not been a central focus for discussion. One of the reasons is that the mechanisms responsible have remained elusive. In this conference, researchers studying DNA recombination, DNA replication, chromatin structure and evolution discussed the molecular mechanisms and biological functions of gene amplification (including maintenance mechanism of amplified genes).

The conference featured over 50 participants (including 11 researchers from foreign countries) and included 22 oral and 11 poster presentations. Tremendous amounts of information were exchanged during many exciting discussions.

Now, with the enormous increases in genomic information and the rapid progression of molecular biology, we are in a good position to look at new aspects of gene amplification. This timely conference, therefore, was an excellent opportunity to develop amplification study.

Scientific topics:

Molecular Mechanism of Gene Amplification

Adaptation and Gene Amplification

Evolution and Gene Amplification

Speakers

ARCANGIOLI, Benoit	(Pasteur Institute, France)
BENSIMON, Aaron	(Pasteur Institute, France)
DEBATISSE, Michelle	(Curie Institute, France)
GANLEY, Austen	(National Institute for Basic Biology, Japan)
HERNANDEZ, Pablo	(CSIC, Spain)
HISHIDA, Takashi	(Osaka University, Japan)
HORIUCHI, Takashi	(National Institute for Basic Biology, Japan)
IWASAKI, Hiroshi	(Yokohama City University, Japan)
JOHZUKA, Katsuki	(National Institute for Basic Biology, Japan)
KIKUCHI, Akihiko	(Nagoya University, Japan)
KOBAYASHI, Takehiko	(National Institute for Basic Biology, Japan)
LOBACHEV, Kirill	(Georgia Institute of Technology, USA)
MAKI, Hisaji	(Nara Institute of Science and Technology, Japan)
ROTH, John	(University of California-Davis, USA)
SASAKI, Hiroki	(National Cancer Center Research Institute, Japan)
SCHVARTZMAN, Jorge	(CSIC, Spain)
SHIBATA, Takehiko	(RIKEN Institute, Japan)
SHIMIZU, Noriaki	(Hiroshima University, Japan)
SHORE, David	(University of Geneva, Switzerland)
SOGO, José	(ETH, Switzerland)
STRUNNIKOV, Alexander	(NIH, USA)
TOWER, John	(University of Southern California, USA)