The Fifth Okazaki Biology Conference Speciation and Adaptation -Ecological Genomics of Model Organisms and Beyond-

Organizing Chair : Kentaro Shimizu (University of Zurich, Switzerland) Ian Dworkin (North Carolina State University, USA)

March 11 (Sun) – 16 (Fri), 2007

With the advent and widespread use of genomic tools, it is clear that the study of evolutionary genetics is undergoing a transformation. To promote the advancement and synthesis of the various fields of evolutionary and ecological genomics, the 5th Okazaki Biological Conference was held in March of 2007. The conference began with a social function to welcome 70 scientists from 10 countries and was followed by Plenary Lectures at the National Institute for Basic Biology (NIBB). Following the plenary lectures, the participants moved to Yamaha Resort Tsumagoi, where the scientists had opportunities to share their work during the oral platform sessions, in addition to poster sessions by many additional young scientists. The talks represented a broad overview of current areas of active research in ecological and evolutionary genomics, including studies of adaptation, speciation, domestication, genome duplication, co-evolution, canalization and theoretical population genetics.

Scientific sessions:

- 1. Adaptive evolution
- 2. Genetics of speciation
- 3. Genome duplication and epigenetics
- 4. Artificial selection in domestication
- 5. Canalization, robustness and hidden genetic variation
- 6. Theory
- 7. Coevolution

Invited Speakers

The real goal of such an intimate meeting was to encourage interaction between leading researchers and to facilitate interactions between scientists using different approaches but asking related questions and using similar model systems.. We believe that it is only when apparently disparate aspects of biology are integrated that we can hope to make real progress in our understanding of evolutionary mechanisms. During the conference, therefore, there was plenty of time for discussions on each of these subjects, both formally after each session with a panel discussion as well as more informally during social events and meals. The feedback from the participants on all aspects of the conference, including the scientific discussions, opportunities for developing new contacts, and the help of the supporting staff, was very positive.



AGUADE, Montserrat (Univ. Barcelona, Spain), ARAKI, Hitoshi (Oregon State Univ., USA), BARBASH, Daniel (Cornell Univ., USA), BRYSTING, Anne (Univ. Oslo, Norway), CAICEDO, Ana (Univ. Massachusetts, USA), COMAI, Luca (UC Davis, USA), COOP, Graham (Univ. Chicago, USA), DWORKIN, Ian (North Carolina State Univ., USA), FELIX, Marie-Anne (Institut Jacques Monod, France), GROSSNIKLAUS, Ueli (Univ. Zurich, Switzerland), HERMISSON, Joachim (Univ. Munich, Germany), HIRATE, Yoshikazu (Fred Hutchinson Cancer Research Center, USA), HOEKSTRA, Hopi (Harvard Univ., USA), IGIC, Boris (Univ. Illinois, Chicago, USA), KANAOKA, Masahiro (Univ. Washington, USA), KOBAYASHI, Yasushi (MPI for Developmental Biology, Germany), KUITTINEN, Helmi (Univ. Oulu, Finland), LAWTON-RAUH, Amy (Clemson Univ., USA), MABLE, Barbara (Univ. of Glasgow, UK), MACHADO, Carlos (Univ. Arizona, USA), OLSEN, Kenneth (Washington Univ., St. Louis, USA), PURUGGANAN, Michael (New York Univ., USA), RESCH, Alissa (NCBI, USA), RUTHERFORD, Suzannah (Fred Hutchinson Cancer Research Center, USA), SHIMIZU, Kentaro (Univ. Zurich, Switzerland), SHIMIZU-INATSUGI, Rie (Univ. Zurich, Switzerland), SHUSTER, Stephen (Northern Arizona Univ., USA), SIEGAL, Mark (New York Univ., USA), STEPHAN, Wolfgang (Univ. Munich, Germany), TANAKA, Kenta (Univ. Sheffield, UK), TIAN, Dacheng (Nanjing Univ., China), TSIANTIS, Miltos (Univ. Oxford, UK), VERGEER, Philippine (Univ. Leeds, UK), WIDMER, Alex (ETH Zurich, Switzerland), YANG, Hsiao-Pei (Cornell Univ., USA)

FUKATSU, Takema (AIST, Japan), HARUSHIMA, Yoshiaki (NIG, Japan), HASEBE, Mitsuyasu (NIBB, Japan), INNAN, Hideki (SOKENDAI, Japan), ISHIKAWA, Ryuji (Hirosaki Univ., Japan), IZAWA, Takeshi (NIAS, Japan), KUDOH, Hiroshi (Kobe Univ., Japan), MOCHIZUKI, Atsushi (NIBB, Japan), OKADA, Kiyotaka (Kyoto Univ., Japan), TAJIMA, Fumio (Univ. Tokyo, Japan), TAKAHASHI, Aya (NIG, Japan), TSUKAYA, Hirokazu (Univ. Tokyo, Japan), TSUMURA, Yoshihiko (FFRPI, Japan), YAHARA, Tetsukazu (Kyushu Univ., Japan)

The Sixth Okazaki Biology Conference Marine Biology

Organizing Chair : Noriyuki Satoh (Kyoto University, Japan) Billie J. Swalla (University of Washington, USA) Don R. Levitan (Florida State University, USA)

December 2 (Sun) - 8 (Sat), 2007

We conceived this conference in order to bring together Marine Scientists from across the globe to discuss approaches to research in Marine Sciences. Most Marine Science is carried out at Marine Biological Laboratories, so we invited a number of Marine Laboratory Directors from Canada, France, Italy, Norway, Sweden and Japan to get an idea of what sort of studies are being conducted globally. Marine Biology covers an enormous number of research topics and we endeavored to bring together researchers in all of the main fields: reproductive biology, evolution and development, neurobiology, marine fungi/algae, marine genomics, behavior, ecology and conservation biology. This diverse group of speakers is united by their research on marine systems and the fact that they are internationally known for the quality of their research. We expected this group of brilliant leading Marine Scientists to find much in common to share about research techniques, approaches and future prospects and were delighted to see the many positive

interactions that took place among the participants.

The diverse research presented at the OBC-6 Marine Biology Conference showed the vast potential of the marine environment in biological studies and highlighted current ecological problems that threaten the unprecedented biodiversity and untapped knowledge in the world's oceans. We heard many talks about the advances in genomics and marine exploration applied in novel and creative ways to understanding the marine environment and the biological organisms that live within it. The talks described research on a wide range of life forms from marine algae to invertebrates to vertebrates.

Towards the end of conference, it was suggested that an academic society for Marine Biologists in Japan be organized in the very near future. This may prove to be one of the most important achievements of this highly successful conference.

Scientific topics: Reproduction Evolution and Development Neurobiology and Physiology Marine Algae and Fungi Marine Genomics Behavior Ecology



Speakers

BERNARDI, Giorgio (Stazione Zoologica Anton Dohrn, Italy), BOYEN, Catherine (CNRS & Univ. Paris 6, France), CHOURROUT, Daniel (Univ. Bergen, Norway), KLOAREG, Bernard (CNRS, Université, France), KNOWLTON, Nancy (Smithsonian Inst., USA), LEVITAN, Don R. (Florida State Univ., USA), MATZ, Mikhail V. (Univ. Texas, Austin, USA), SARDET, Christian (CNRS UPMC, France), SPENCER, Andrew N. (Malaspina Univ.-College, Canada), SWALLA, Billie J. (Univ. Washington, USA), THORNDYKE, Michael C. (The Royal Swedish Academy of Sci., Sweden), VIZE, Peter D. (Univ. Calgary, Canada), WIDDER, Edith A. (Ocean Research & Conservation Assoc., USA)

AKASAKA, Koji (Univ. Tokyo, Japan), HARADA, Yoshito (Sugashima Marine Biological Laboratory, Japan), HIDAKA, Michio (Univ. Ryukyus, Japan), HOSHI, Motonori (Open Univ., Japan), INABA, Kazuo (Univ. Tsukuba, Japan), KIYOMOTO, Masato (Ochanomizu Univ., Japan), KUSAKABE, Takehiro G. (Univ. Hyogo, Japan), NAKAMURA, Masaru (Univ. Ryukyus, Japan), NARUSE, Kiyoshi (NIBB, Japan), NOZAKI, Masumi (Niigata Univ., Japan), OKAMURA, Yasushi (Okazaki Inst. Integrative Biosci., Japan), OTA, Kinya G. (RIKEN CDB, Japan), SAGA, Naotsune (Hokkaido Univ., Japan), SAKAMOTO, Tatsuya (Okayama Univ., Japan), SATO, Katsufumi (Univ. Tokyo, Japan), SATOH, Nori (Kyoto Univ., Japan), SAWADA, Hitoshi (Nagoya Univ., Japan), TAKEI, Yoshio (Univ. Tokyo, Japan), TSUKAMOTO, Katsumi (Univ. Tokyo, Japan), UEDA, Hiroshi (Hokkaido Univ., Japan), UENO, Naoto (NIBB, Japan), YASUI, Kinya (Hiroshima Univ., Japan)