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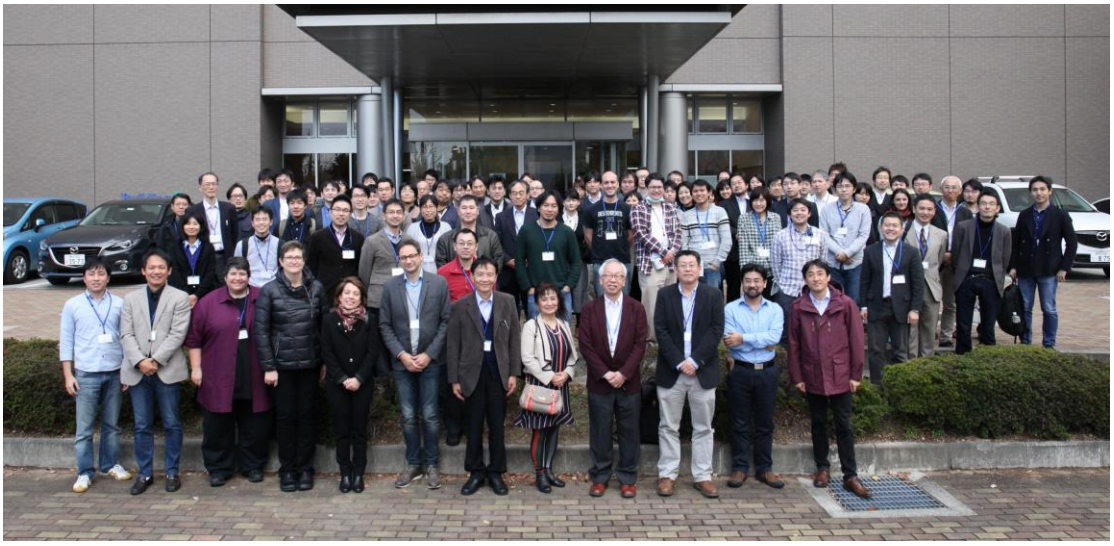
Seeking new frontiers in cilia and centrosome research

December 8, 2016– The 28th CDB Meeting, "Cilia and Centrosomes: Current Advances and Future Directions," was held at the RIKEN Center for Developmental Biology from November 27 to 29. There were 101 participants from within Japan and abroad in attendance at the meeting, which was cohosted by the Cilia Club, and the MEXT* Grant-in-Aid for Scientific Research on Innovative Areas "Cilium-centrosome system regulating biosignal flows."



Participants of the 28th CDB Meeting

The three-day meeting focused on cilia and centrosomes, the former which play important roles in motility and transmission of intercellular signals, and the latter which serve as the main microtubule-organizing centers required for proper cell division to take place. These two seemingly different organelles, are in fact both constructed by the same complex called the centriole. Centrioles are known to form the basal body of cilia during cell interphase, and form the central structure of centrosome during mitosis. Research on cilia and centrosomes have progressed along parallel paths, and only recently have researchers begun to realize the importance of tying these two fields together to gain a more comprehensive perspective of the common molecular mechanisms regulating the function of these organelles and their association with various diseases. Twenty-two talks and over 30 posters were presented at the meeting, on a range of topics including roles of the cilia and centrosomes in cell cycle, embryogenesis, and disease pathogenesis.

"In addition to forging closer exchanges between cilia and centrosome researchers, this meeting presented the opportunity to share the culmination of five years of research carried out with support of the MEXT Grants-in Aid for Scientific Research on Innovative Areas," commented one of the meeting organizers, Fumio Matsuzaki (Team Leader, Laboratory for Cell Asymmetry). "We hope that the concept of viewing cilia and centrosomes as functionally and structurally linked organelles gains wider recognition and further stimulate research in new directions."

*MEXT: The Ministry of Education, Culture, Sports, Science and Technology of Japan

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