FY 2025 Annual Report

Unit Name

Developmental Neurobiology Unit

Professor Ichiro Masai

Research Personnel

Yuko Nishiwaki, Senior Staff Scientist

Yuki Takeuchi, Staff Scientist, Change classification into Research Technician

Luis Carretero Rodriguez, Staff Scientist

Wei-Chieh Chiang, Staff Scientist

Liang Huan Wu, Postdoctoral Scholar, Postdoc researcher in National Taiwan University (NTU)

Yuki Takeuchi, Research Unit Technician

Mamoru Fujiwara, Research Unit Technician

Paula Niejenhuis, Research Unit Technician

Tetsuya Harakuni, Research Unit Technician

Diana Ilatovskaia, Laboratory Assistant

Hitomi Toguchi, Laboratory Assistant

Faiza Elgazzer, Laboratory Assistant

Chitose Mizuta, Laboratory Assistant

Rui Inoue, Laboratory Assistant

Miki Kitamura, Laboratory Assistant

Ririka Shiroma, Laboratory Assistant (Tempo staff)

Akira Kawano, PhD Student

Darshini Ravishankar, PhD Student

Bidesh Chatterjee, PhD Student

Tatsuo Izawa, PhD Student

Mariia Pavelchenko, PhD Student

Dzerassa Gurtsieva, Research Intern

Scholarly Contributions and Creative Productions (by Faculty)

Journal Article

1. Hu, D.; Masai, I.
   Dscamb Regulates Cone Mosaic Formation in Zebrafish via Filopodium-Mediated Homotypic Recognition. Nature communications 2025, 16, 2501.
2. Babu, S.; Nishiwaki, Y.; Masai, I.
   PCR-Based Genotyping of Zebrafish Genetic Mutants. Bio-protocol 2025, 15, e5248.

Presentation at Conference

1. Masai, I.

   Mechanism of Photoreceptor Degeneration and Regeneration in Achromatopsia Model Zebrafish. ZDM2025 (Zebrafish Disease Models Society Annual Conference) 2025.

2. Masai, I.

   Dscamb Regulates Cone Mosaic Formation in Zebrafish via Filopodium-Mediated Homotypic Avoiddance. . 47th Annual meeting of Japanese Society of Comparative Physiology and Biochemistry 2025.

3. Masai, I.

   Dscamb Regulates Cone Mosaic Formation in Zebrafish via Filopodium-Mediated Homotypic Avoiddance. . 18th Retina Research Meeting (RRM) 2025.

4. Masai, I.

   Mechanism Underlying the Formation of Cone Mosaic Pattern in the Vertebrate Retina. 24th PRESTO meeting "Recognition and Formation" 2025.

5. Masai, I.

   Research on Photoreceptor Degeneration and Neuronal Regeneration in Zebrafish. 44th Annual meeting of Japanese Society of Comparative and Veterinary Ophthalmology 2025.

6. Hu, D.; Masai, I.

   Dscamb Regulates Cone Mosaic Formation in Zebrafish via Filopodium-Mediated Homotypic Avoiddance. . Joint meeting of JSCB 77th and JSDB 58th 2025.

Scholarly Contributions (by Unit Members)

Name of Unit Member	Type	Title	Outlet	Year Pub
Yuko Nishiwaki	Poster Presentation at Conference	Genetic mutations of cone phototransduction gene pde6c cause cone degeneration through the elevation of cytoplasmic Ca2+ levels	International symposium on Retinal Degeneration (RD2025)	15-20 September 2025
Yuko Nishiwaki	Poster Presentation at Conference	Genetic mutations of cone phototransduction gene pde6c cause cone degeneration through the elevation of cytoplasmic Ca2+ levels	Joint meeting of JSCB 77th and JSDB 58th	16-18 July 2025
Luis Carretero Rodriguez	Presentation at Conference	Zebrafish MeCP2 mutatioon produce behavioral alterations reminiscent of Rett Syndrome	OIST-JST Act-X Joint Mini Symposium	27th January 2025
Yuko Nishiwaki	Presentation at Conference	Genetic mutations of cone phototransduction gene pde6c cause cone degeneration through the elevation of cytoplasmic Ca2+ levels	7th European Zebrafish Principal Investigator Meeting	2-5 April 2025
Dongpeng Hu	Presentation at Conference	Dscamb Regulates Cone Mosaic Formation in Zebrafish via Filopodium-Mediated Homotypic Avoidance	41th Asia-Pacific Academy of Ophthalmology Congress in conjunction with 37th Annual Scientific Meeting Hong Kong Ophthalmological Symposium	5-9 February 2026

External Service

Term 1 2023 - Ongoing	Editorial Board member (Associate Editor), Frontiers in Cell and Developmental Biology [Fiscal Year: 2023-09-01]
Term 1 2020 - Ongoing	Editorial Board member, Development, Growth & Differentiation (DGD) [Fiscal Year: 2020-09-01]
Term 1 2008 - Ongoing	Referee member for Researcher fellowship for Japanese society of promotion scienceReferee member for Researcher fellowship, MEXT [Fiscal Year: 2008-09-01]