Mahadeva Swamy M. M., PhD

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PRESENT POSITION

Assistant Professor, Laboratory of Molecular Chemical Biology
Faculty of Advanced Life Science, Hokkaido University
Kita-21, Nishi-11, Kita-Ku, Sapporo, Hokkaido 001-0021, Japan
Email: mswamy[at]sci.hokudai.ac.jp
Tel: +81-11-706-9046, Fax: +81-11-706-9540

EDUACTION

2014-2018 PhD in Life Science (Chemical Biology), Hokkaido University, JAPAN.
2009-2011 M.Sc. in Chemistry, University of Mysore, INDIA
2006-2009 B.Sc., University of Mysore, INDIA

RESEARCH EXPERIANCE

2022-present, Assistant Professor, Faculty of Advanced Life Science, Hokkaido University, Japan
2022-present: Visiting Scientist, Biosystems Dynamics Research Center, RIKEN, Osaka, Japan.
2019-2022: Research Scientist, Biosystems Dynamics Research Center, RIKEN, Osaka, Japan.
2018-2019: Academic Researcher, Faculty of Advanced Life Science, Hokkaido University, Japan
2012-2014: Research Assistant, Molecular Biology and Genetics Unit, JNCASR, INDIA

PROFESSIONAL MEMBERSHIP

1. Chemical Society of Japan (CSJ)
2. Japanese Society for Chemical Biology (JSCB)
3. Lifetime member of Chemical Biology Society (CBS) India

AWARDS AND RECOGNISION

1. Recipient of The Ministry of Education, Culture, Sports, Science, and Technology (MEXT) scholarship **2014** to pursue PhD degree.
2. Recipient of Japan Student Services Organization (JASSO) fellowship-**2018**.
3. Best poster award, RIKEN BDR Symposium-**2021**.

PUBLICATIONS

1. Attila Mándi, Aliz Rimóczi, Andrea Vasas, Judit Hohmann, Mahadeva M. M. Swamy, Kenji Monde, Roland A. Barta, Máté Kicsák, István Komáromi, Krisztina Fehér, Tibor Kurtán, *Testing the Simplified Molecular Dynamics Approach to Improve the Reproduction of ECD Spectra and Monitor Aggregation*, ***Int. J. Mol. Sci.*** *25* (12), 6453 (**2024**).

2. Mahadeva M. M. Swamy, Yuta. Murai, Kenji Monde, Setsuko Tsuboi, Aravind K. Swamy, Takashi Jin, *Biocompatible and water-soluble shortwave-infrared (SWIR)-emitting cyanine-based fluorescent probes for in vivo multiplexed molecular imaging*, ***ACS Appl. Mater. Interfaces***, *16*, 17253-17266 (**2024**).

3. Sajeer Koolath, Yuta Murai, Tomoya Suzuki, Mahadeva M. M. Swamy, Seigo Usuki, Kenji Monde, *Stereochemistry of Sphingolipids in Ganglioside GM3 Enhances Recovery of Nervous Functionality*, ***ACS Med. Chem. Lett.,*** *14*, 1237–1241 **(2023**).

4. Mariam Abdelrasoul, Kohei Yuyama, Mahadeva M. M. Swamy, Yuta Murai, Kenji Monde, *Stereochemistry-activity relationship of ceramide-induced exosome production to clear amyloid-β in Alzheimer's disease*, ***Chirality***, *35*, 577–585 (**2023**).

5. Mahadeva M. M. Swamy, Mohamad Zarif Mohd Zubir, Mutmainah, Setsuko Tsuboi, Yuta Murai, Kenji Monde, Ken-ichi Hirano, Takashi Jin, *A near-infrared fluorescent long-chain fatty acid toward optical imaging of cardiac metabolism in living mice*, ***Analyst***, *147*, 4206-4212 (**2022)**.

6. Mahadeva M. M. Swamy, Setsuko Tsuboi, Yuta Murai, Kenji Monde, Takashi Jin, *Shortwave-infrared (SWIR) emitting annexin V for high-contrast fluorescence molecular imaging of tumor apoptosis in living mice*, ***RSC advances***, *12*, 19632-19639 (**2022)**.

7. Mahadeva M. M. Swamy, Yuta Murai, Kenji Monde, Setsuko Tsuboi, Takashi Jin, *Shortwave-infrared fluorescent molecular imaging probes based on π-conjugation extended indocyanine green*, ***Biconjugate Chem.***, *32*, 1541-1547 (**2021)**.

8. Hadya Virupaksha Deepak, Mahadeva M. M. Swamy, Yuta Murai, Yoshiko Suga, Masaki Anetai, Takuro Yo, Masahiro Kuragano, Koji Uwai, Kiyotaka Tokuraku and Kenji Monde, *Daurichromenic Acid from the Chinese Traditional Medicinal Plant Rhododendron dauricum Inhibits Sphingomyelin Synthase and Aβ Aggregation*, ***Molecules***, *25*, 4077-4088 (**2020**).

9. Christiane Kiske, Anja Devenie Riegel, Ronja Hopf, Anna Kvindt, Iulia Poplacean, Tohru Taniguchi, Mahadeva M. M. Swamy, Kenji Monde, Wolfgang Eisenreich, Karl-Heinz Engel, *Determination of the Absolute Configurations and the Sensory Properties of the Enantiomers of a Homologous Series (C6–C10) of 2-Mercapto-4-alkanones*, ***J. Agric. Food Chem.***, 67, 1187-1196 (**2019**).

10. Mahadeva M. M. Swamy, Yuta Murai, Yusuke Ohno, Keisuke Jojima, Akio Kihara, Susumu Mitsutake, Yasuyuki Igarashi, Jian Yu, Min Yao, Yoshiko Suga, Masaki Anetai and Kenji Monde, *Structure-inspired design of a sphingolipid mimic sphingosine-1-phosphate receptor agonist from a naturally occurring sphingomyelin synthase inhibitor*, ***Chem. Commun.***, *54*, 12758 - 12761 (**2018)**.

11. Aswini Babu, Mageshi Kamaraj, Moumita Basu, Debanjan Mukherjee, Shruti Kapoor, Shashi Ranjan, Mahadeva M. M. Swamy, Stephanie Kaypee, Vinod Scaria, Tapas K. Kundu, Chetana Sachidanandan, *Chemical and genetic rescue of an ep300 knockdown model for Rubinstein Taybi Syndrome in zebrafish*, ***Biochim. Biophys. Acta***, *1864*, 1203-1215 (**2018)**.

12. Suvasmita Rath, Lopamudra Das, Shrikant Babanrao Kokate, Nilabh Ghosh, Pragyesh Dixit, Niranjan Rout, Shivaram P. Singh, Subhasis Chattopadhyay, Hassan Ashktorab, Duane T. Smoot, Mahadeva M. M. Swamy, Tapas K. Kundu, Sheila E. Crowe, Asima Bhattacharyya,

Inhibition of histone/lysine acetyltransferase activity kills $CoCl_2$-treated and hypoxia-exposed gastric cancer cells and reduces their invasiveness, ***Int. J. Biochem. Cell Biol.***, 82, 28-40 (**2017**).

13. Attila Mandi, Mahadeva M. M. Swamy, Tohru Taniguchi, Masaki Anetai, Kenji Monde, *Reducing Molecular Flexibility by Cyclization for Elucidation of Absolute Configuration by CD Calculations: Daurichromenic Acid*, ***Chirality***, 28, 453-459 (**2016**).

14. Mahadeva M. M. Swamy, Attila Mandi, Masaki Anetai., Kenji Monde, *Stereochemistry of a Rhododaurichromanic Acid Derivative*, ***Nat. Prod. Commun***., 11, 193-195 (**2016**).

15. Feng Li, Muthu K. Shanmugam, Kodappully Sivaraman Siveen, Fan Wang, Tina H. Ong, Ser Yue Loo, Mahadeva M. M. Swamy, Somnath Mandal, Alan Prem Kumar, Boon Cher Goh, Tapas Kundu, Kwang Seok Ahn, Ling Zhi Wang, Kam Man Hui, Gautam Sethi, *Garcinol sensitizes human head and neck carcinoma to cisplatin in a xenograft mouse model despite downregulation of proliferative biomarkers*, ***Oncotarget***, 6, 5147-5163 (**2015**).

16. Min Wu, Sahn-Ho Kim, Indrani Datta, Albert Levin, Gregory Dyson, Jing Li, Stephanie Kaypee, Mahadeva M. M. Swamy, Nilesh Gupta, Ho Jeong Kwon, Mani Menon, Tapas K. Kundu, G. Prem-Veer Reddy, *Hydrazinobenzoylcurcumin inhibits androgen receptor activity and growth of castration-resistant prostate cancer in mice*, ***Oncotarget***, 6, 6136-6150 (**2015**).

17. Mohankrishna Dalvoy Vasudevarao, Pushpak Mizar, Sujata Kumari, Somnath Mandal, Soumik Siddhanta, Mahadeva M. M. Swamy, Stephanie Kaypee, Ravindra C Kodihalli, Amrita Banerjee, Chandrabhas Naryana, Dipak Dasgupta, Tapas K. Kundu, *Naphthoquinone-mediated inhibition of lysine acetyltransferase KAT3B/p300, basis for non-toxic inhibitor synthesis*, ***J. Biol. Chem.***, 289, 7702-7717 (**2014**).

PATENTS AND BOOK CHAPTER:

1. Takashi Jin, Mahadeva Swamy M. M., Kenji Monde, Yuta Murai, *Compound, Production Method Therefor, Complex, and Short Wavelength Infrared Fluorescent agent*, US patent: US**2024**0174645A1.

2. Takashi Jin, Mahadeva Swamy M. M., Kenji Monde, Yuta Murai, *Compound, Production Method Therefor, Complex, and Short Wavelength Infrared Fluorescent agent*, WO**2022**196694.

3. 化合物、その製造方法、複合体および短波赤外蛍光剤, Takashi Jin, Mahadeva Swamy M. M., Kenji Monde, Yuta Murai, ***Japanese patent***: **2021**041717.

4. スフィンゴミエリン合成酵素阻害剤, Kenji Monde, Yuta Murai, Mahadeva Swamy M. M., ***Japanese patent***: **2019**-104691.

5. スフィンゴミエリン合成酵素阻害剤, Kenji Monde, Yuta Murai, Mahadeva Swamy M. M., ***Japanese patent***: **2019**-104692.

6. Amit K Behera, Mahadeva M. M. Swamy, Nagashayana Natesh, Tapas K Kundu, *Garcinol and its role in chronic diseases*, Adv. Exp. Med. Biol., 928, 435-452, (**2016**). (Book chapter)