

Curriculum vitae

Personal Information

- **First name, Surname:** Marie Saitou
- **Email address:** mariesaitou@gmail.com, marie.saitou@nmbu.no
- **Nationality:** Japanese (**with permanent residence permit in Norway**)
- **Languages:** Japanese (native), English (fluent), Norwegian (A2)
- **Websites**
<https://orcid.org/0000-0002-8794-3217>
<https://scholar.google.com/citations?user=QDLB--8AAAAJ>
<https://sites.google.com/view/saitou-lab/home>

Education

- **2017 – Ph.D. in Biology, Graduate School of Science, The University of Tokyo, Japan**
Thesis: “Evolutionary Study on Deletion Polymorphism of the GSTM1 Gene in Humans”
Advisor: Dr. Takafumi Ishida
- **2014 – MSc. in Biological Anthropology, Graduate School of Science, The University of Tokyo**
Thesis: “Distribution and Biological Significance of Human GSTM1 and GSTT1 Null Variants”
Advisor: Dr. Takafumi Ishida
- **2012 – B.S. in Biological Anthropology, Faculty of Science, The University of Tokyo**
- **2011** Undergraduate Rotation Project, Faculty of Science,
Simulated the evolution of grandmother effect with NetLogo, Advisor: Dr. Yasuo Ihara
Observed behavior of genetically modified mice, Advisor: Dr. Shintaroh Ueda
- **2008** Undergraduate Research Project, Faculty of Medicine,
Dissected rat brain and prepared cell cultures from hippocampus Advisor: Dr. Masanobu Kano
- **2008** Undergraduate Research Project, Faculty of Science,
Observed chemotaxis of *C. elegans*, Advisor: Dr. Yuichi Iino

Positions

Current Position

- **2020 – present** Principal Investigator (Tenure-Track), Norwegian University of Life Sciences,
Centre of Integrative Genetics (CIGENE), Norway

Previous Positions

- **2020 - 2020** Postdoctoral Scholar, Section of Genetic Medicine, University of Chicago, USA
 - Advisor: Dr. Xuanyao Liu
- **2017-2020** Postdoctoral Scholar, Department of Biological Sciences, University at Buffalo, USA
 - Advisor: Dr. Omer Gokcumen

Fellowships, Awards, and Prizes (Selected)

- **2022** The First Marie Skłodowska Curie Award, Recognition Prize, Japan Science and Technology Agency & the Embassy of the Republic of Poland in Japan
 - **2022** Young Scientist Initiative Award, Society of Evolutionary Studies, Japan
 - **2021-2023** NMBU Talent Program 2.0 - "Research Talents for Sustainability", NMBU, Norway
 - **2019** Excellent Oral Presentation Award, Society of Evolutionary Studies, Japan
 - **2019** DeLill Nasser Award, Genetics Society of America, USA
 - **2019** Young Investigator Award, Society for Molecular Biology and Evolution Meeting
 - **2018** Astellas Foundation for Research Abroad on Metabolic Disorders, Japan (400K NOK)
 - **2013-2017** Graduate Program for Leaders in Life Innovation (GPLLI), the University of Tokyo, Japan. **75K NOK**
 - **2014-2017** Research Fellow of the Japan Society for the Promotion of Science (DC1) (**The best notable scholarship for Ph.D. students in Japan**) **750K NOK** for stipend and **250K NOK** for the research.
 - **2012** School of Science, Dean's Award, the University of Tokyo, Japan
-

Project Management Experience/Awarded Grants

- **2021-2025 – SalmoSV, Project Leader, Research Council of Norway (FRIPRO, 8M NOK)**
 - **2020-2023 – Synchrosmolt, WP Leader, Fiskeri og Havbruksnæringens Forskningsfond (15M NOK)**
 - **2024-2027 – HubSmolt, WP Leader, Research Council of Norway (Thematic Call, 12M NOK)**
 - **2022** Arima Genomics, Genome Assembly Grant (A Hi-C kit from Arima Genomics)
 - **2021** NMBU FU-BIOVIT "småforsk" funding, NOK 30K, "a preliminary analysis of genomic structural variants in Atlantic salmon", Principal investigator (Co-investigator: Guro Katrine Sandvik)
 - **2021-2024** NMBU FU-BIOVIT PhD position funding for 2021-2024, "Unveiling the evolutionary and functional impact of genomic structural variants of Atlantic salmon" Principal investigator
-

Supervision Experience (As main supervisor)

Postdoctoral Researcher Supervision

- **Dr. Jun Soung Kwak (2022-2024)** (with Dr. Guro Sandvik as co-supervisor).
 - Investigated the function and evolution of the circadian rhythm gene *Period* in Atlantic salmon and other vertebrates (**G3, published, please see Publication list**).
 - Conducted Hi-C genome architecture studies (manuscript in preparation) and performed gene editing experiments in cell cultures.
 - **Currently an Assistant Professor at Kongju National University, South Korea.**

PhD Students

- **Dr. Domniki Manousi (2022-2025, NMBU)**
 - Investigating genetic mechanisms of immune response in Atlantic salmon from evolutionary biology and aquaculture.
 - **Awarded Best Flash Talk Prize at the 5th International Conference on Integrative Salmonid Biology (Seattle, 2024).**

- **Currently a Postdoctoral Researcher at Rosline Research Institute (University of Edinburgh).**
- **Célian Diblasi (2022-2026, NMBU)**
 - Researching whole-genome duplication (WGD), genome structural variation, and transposable element evolution in salmonids.
 - Co-first-authored one submitted paper; one first-author review in revision; currently writing two research articles.

MSc Students

- **Maëlys Chapis** (2025, MSc. intern, IUEM, France)
 - Currently pursuing a Master's degree in Marine Biological Sciences at the European Institute for Marine Studies (IUEM), University of Brest.
 - Completed a research internship in population genetics and functional genomics under my supervision at NMBU.
- **Erik Sandertun Røed** (2022-2024, NMBU, co-supervised with Dr. Louise Chavarie)
 - Thesis: *Evaluating genetic tools to inform conservation efforts for the nationally red-listed European lobster (Homarus gammarus)*.
 - **Awarded NMBU's Prize for Best Master's Thesis 2024.**
 - Presented work in Coast to Coral (Australia) outreach program.
 - Currently a PhD student at CEES, University of Oslo.
- **Pauline Buso** (2022-2023, TULIP, France, internship)
 - Thesis: *Identification of selection sweeps following recent domestication: parallel evolution in farmed Atlantic salmon strains from two geographical origins* (with Dr. Nicola Barson).
 - Currently a PhD student at Université Toulouse III, France.
- **Akira Harding** (2023, Erasmus+ internship)
 - Established meta-transcriptomics methods for aquaculture microbiome outbreak investigations,

Teaching Activities

- **2020-2024** – BIO326 Genome Sequencing: Tools and Analysis (MSc Level), NMBU, Norway
- **2021-2022, 2024** – BIO322 Advanced Topics in Genomics (MSc Level), NMBU, Norway
 - **2024** – Course Responsible
- **2022** – Organized Workshop: "RNA Sequencing Without Coding", NMBU, Norway
- **2022** – Organized Workshop: "Exploring Public Genome Databases", NMBU, Norway

Guest Lectures

- Invited lecturer, Genome science and society, the University of Tokyo, 2025
- Invited lecturer, Biological Science Seminar, the University of Tokyo, 2022,
- One-time Lecturer, Introduction to Life Sciences (Host: Dr. Kazuhiro Nakayama), University of Tokyo, June 2021

- One-time Lecturer, Human Evolutionary Genetics (Instructor: Dr. Omer Gokcumen), University at Buffalo, Fall, 2019
- Teaching Assistant: Experiments of Human Genetics, the University of Tokyo, Fall, 2015

Teaching/Supervision-related courses

- PPUN400 University Pedagogy Course (**Scheduled for Fall 2025, NMBU, in Norwegian**)
- PPVE400 Master and phd supervision, 2022, NMBU
- LC2: Course in research management and supervision (spring 2021), University of Oslo
- Course in Research Leadership (fall 2021), University of Oslo
- Postdoc Mentor Training 2021, The University of Chicago
- Workshop on Teaching Portfolios, 2020, The University of Chicago
- Workshop on Course Design, 2020, The University of Chicago
- Postdoctoral Teaching Training for Academic Careers 2018-2019, University at Buffalo

Organization of Meetings

- **2021** Organizer, Japan-Norway Symposium on Fish Endocrinology and Genomics (50 participants, Norway)

Institutional Responsibilities

- **2020-2023** – Organizer, Centre of Integrative Genetics Online Invited Seminar Series, NMBU

Commissions of Trust in Academic, Public or Private Organizations

- **2017-present** – Manuscript Reviewer for:
 - **Trends in Genetics, Molecular Biology and Evolution, Communications Biology, PLOS Genetics, Journal of Human Evolution, Genetics, Molecular Ecology Resources, G3: Genes|Genomes|Genetics, Molecular Cytogenetics, BMC Genomics, Ecology and Evolution, Journal of Molecular Evolution, npj Parkinson's Disease, Genomics, Genes & Genetic Systems, NAR Genomics and Bioinformatics**
- **2021** – Grant Review, The Leakey Foundation (US-based funding organization for human origins research)
- **2025 - Expert Evaluator for the Marie Skłodowska-Curie Postdoctoral Fellowships**

Memberships of Academies / Scientific Societies / Networks

- **2014-present** – Member of:
 - Society for Molecular Biology and Evolution
 - Genetics Society of America

- o Society of Evolutionary Studies, Japan

Selected Invited Seminar Talks

- The University of Tokyo (2022, 2025)
- University of Kanazawa, Sapiens Life sciences, Evolution and Medicine Research Center, (2023)
- University of Vienna (2022)
- UCL Genetics Institute, London (2022)
- SCIENCE-PALOOZA 2022, Online (2021)
- BEEES (Behaviour, Ecology, Environment and Evolution Seminar), ETH Zurich (2021)
- Tohoku University, Japan (2021)
- Harvard University, USA (2019)
- University of Würzburg, Germany (2019)
- University of Ottawa, Canada (2019)
- University of Florence (2016)

Other Academic Service

- **2020-2022 – Editor, Japan Association of Evolutionary Biology Newsletter** (in Japanese)
- **2020** – Invited Essay: "Letter from a Laboratory Abroad," Japan Association of Evolutionary Biology Newsletter
- **2020** – Reviewer for Student Poster Presentation Award, UB Departmental Symposium, Buffalo, USA
- **2020 – Co-Host, Great Lakes Annual Meeting on Evolutionary Genetics (GLAM-evogen)**
- **2019 – Co-Host, The American Association of Anthropological Genetics Workshop, University at Buffalo**
- **2018** – Invited Book Review: *Orangutan* by Noko Kuze, Japan Association of Evolutionary Biology Newsletter (in Japanese)
- **2017** – Invited Welcome Speech, 10th HOPE Meeting with Nobel Laureates, Tokyo, Japan
- **2016** – Invited Short Essay: *The Diversity of People Who Gathered on Brač Island, East of the Adriatic Sea*, University of Tokyo Newsletter
- **2016** – Poster Presentation with Dr. Masaaki Morita: *Interdisciplinary Communication Activities Among Graduate Students and the Public at Tell the World: Global Research Outreach* (University of Tokyo)
- **2015** – Event Assistant, 7th Get-Together Event for Female Students and Researchers, Graduate School of Science, The University of Tokyo
- **2014 – Organizer, Meeting of Young Anthropologists Society in Japan: Anthropology Crossing Borders**
- **2014** – Student Discussant, *2nd Graduate Program for Life Innovation Program Meeting on Japanese Postgraduate Education*, Shizuoka, Japan

Community Engagement & Public Outreach

- **2021, 2025 Interviewed by The Female Scientist**
- **2021** Digital Evolutionary Biology Seminar, Online (2021)

- **3.9K views on YouTube**, contributing to international outreach in evolutionary research [\[link\]](#)
- **2021** Interviewed by *Japan Society for the Promotion of Science, Stockholm Office*: [Interview](#)
- **2020** Presenter at the 18th *Japanese Researchers Crossing in Chicago (JRCC): How to Explore Human Evolution by Genomics*
- **2020** – Guest Speaker on Podcast *The Next Laboratory* (in Japanese)
- **2020** – **Presenter at Virtual Women in STEM Symposium, Chicago**
- **2020** – Guest Speaker on *Science Now*, a local radio program in Shizuoka Prefecture, Japan (in Japanese)
- **2018** Three-Minute Presentation: First Place, Tenth Annual Postdoctoral Research Symposium, June 13, 2018, University at Buffalo, USA,
- **2015** Co-Organizer, Science Front, outreach seminar for the general public by science graduate students (held five times)
- **2013** Instructor at Biology Teacher's Association of Tokyo: Demonstrated methods for estimating brain volume using skull measurements for high school teachers
- **2013** – Event Assistant: Advisor for female high school students majoring in science, Graduate School of Science, The University of Tokyo
- **2012** – Co-Presenter of public talk and demonstration: Let's Study the Mystery of Human Beings at Science Agora, Tokyo, Japan
- **2012** – Instructor at Science Agora: Demonstrated methods for estimating brain volume using skull measurements for general visitors
- **2012-2014** – Leader of young scientific researchers and graduate student group "0 to 1", Graduate School of Science, The University of Tokyo
- **2011** - Prize at the paper competition for students in Science and Technology, newspaper of The Daily Industrial News, Japan; the awarded opinion paper is entitled "The role of traditional biology to convey the attraction of science".

Press Highlights

- **2022** – Kizuna, Official Magazine of the Government of Japan: **"Untold Stories of Evolution"**
- **2022** – Science Window (in Japanese): [Article](#)
- **2022** – EurekaAlert! Announcement of First Marie Skłodowska Curie Award Winners: [Article](#)
- **2021** – The Scientist: **"Gene Variant Points to Starvation's Evolutionary Legacy"**
- **2020** – Partner.sciencenorway.no: ["Scientists Finally Know How We Make Saliva"](#)
- **2020** – Canadian Broadcasting Corporation (CBC): **The Story on Spit - Podcast**
- **2018** – UB News Center: ["Cells Stop Dividing When This Gene Kicks into High Gear"](#)
- **2017** – UB Now: ["Internet Mentoring Leads to Postdoc Fellowship"](#)