

Unit Name

Marine Structural Biology Unit

Collaborations

Cheryl Ames, Tohoku University, Japan, *Ultrastructural investigation of upside-down jellyfish*

Atsuko Tanaka, University of the Ryukyus, Japan, *Ultrastructural investigation of diatom morphogenesis*

Noriyuki Satoh, OIST, Japan, *Establishing genetic determinants of cnidarian-algal symbioses*

Shunichi Takahashi, University of the Ryukyus, Japan, *Establishing genetic determinants of cnidarian-algal symbioses*

Research Personnel

Naohisa Wada, Staff Scientist

Mingjun Xu, Research Unit Technician

Keenan Guillas, Research Unit Technician

Aljona Sitsel, Science and Technology Associate

Simon Corroyer-Dulmont, Postdoctoral Scholar

Artem Bonchuk, Visiting Researcher

Oliver Schraidt, Visiting Researcher

Iliona Wolfowicz, Visiting Researcher

Leonardo Tozetto, PhD Student

Scholarly Contributions and Creative Productions (by Faculty)

Journal Article

1. Ng'ang'a, P. N. N.; Folz, J.; Kucher, S.; Roderer, D.; Xu, Y.; Sitsel, O.; Belyy, A.; Prumbaum, D.; Kühnemuth, R.; Assafa, T. E.; Dong, M.; Seidel, C. A. M.; Bordignon, E.; Raunser, S.
Multistate kinetics of the syringe-like injection mechanism of Tc toxins. *Science Advances* **2025**, 11, eadr2019.
2. Hu, Q.; Sitsel, O.; Bågenholm, V.; Grønberg, C.; Lyu, P.; Pii Svane, A. S. S.; Andersen, K. R. R.; Laursen, N. S. S.; Meloni, G.; Nissen, P.; Juhl, D. W.; Nielsen, J. T. T.; Nielsen, N. C. C.; Gourdon, P.
Transition metal transporting P-type ATPases: terminal metal-binding domains serve as sensors for autoinhibitory tails. *The FEBS Journal* **2024**.
3. Sitsel, O.; Wang, Z.; Janning, P.; Kroczeck, L.; Wagner, T.; Raunser, S.
Yersinia entomophaga Tc toxin is released by T10SS-dependent lysis of specialized cell subpopulations. *Nature Microbiology* **2024**, 9, 390–404.

Patent and Intellectual Property

1. Sitsel, O.; Raunser, S.
Materials and Methods to Produce Insecticidal Toxins. AU2023336594A1, 2024.

2. Sitsel, O.; Raunser, S.
Materials and Methods to Produce Insecticidal Toxins. EP4335866A1, 2024.

Presentation at Conference

1. Sitsel, O.
Dissecting the mysterious secretion mechanism of Tc toxins. FY2024 Cryo-Electron Microscopy Course at OIST 2025.
2. Sitsel, O.
The mysterious secretion mechanism of Tc toxins. The 13th Asia Pacific Microscopy Congress 2025 (APMC13) 2025.
3. Sitsel, O.
The mysterious secretion mechanism of Tc toxins. Towards the integration of structural biology and cellular biology 2024.

Scholarly Contributions (by Unit Members)

Name of Unit Member	Type	Title	Outlet	Year Pub
Simon Corroyer-Dulmont	Journal Article	The palisade layer of the poxvirus core is composed of flexible A10 trimers	<i>Nature Structural & Molecular Biology</i>	2024
Naohisa Wada	Journal Article	Common dietary emulsifiers promote metabolic disorders and intestinal microbiota dysbiosis in mice	<i>Communications Biology</i>	2024
Leonardo Tozetto	Presentation at Conference	Developmental divergence of trap-jaw and non-trap-jaw <i>Strumigenys</i> ants during metamorphosis	International Congress of Entomology 2024	
Leonardo Tozetto	Presentation at Conference	Developmental divergence of trap-jaw and non-trap-jaw <i>Strumigenys</i> ants during metamorphosis	3rd Joint Congress on Evolutionary Biology	

Outreach Activities (For Unit Members Only)

2025-10-09	Leonardo Tozetto, Presentation Feedback Session for Yokohama Science Frontier School Visit (AM), OIST Science Education Outreach
2025-02-01	Leonardo Tozetto, OIST Science Festival: Exploring the wonders of energy!, OIST Community Relations
2025-01-29	Leonardo Tozetto, Jscience Research Joint Presentation for SSH School, OIST Science Education Outreach
2025-01-29	Leonardo Tozetto, Ishikawa Prefectural Nanao High School, OIST Science Education Outreach