

Unit Name

Biological Design Unit
Professor Naomi Nakayama

Collaborations

Dr. Tom Ellis, Imperial College London, London (UK), Research Collaboration
Dr. Reiko Tanaka, Imperial College London, London (UK), Research Collaboration
Dr. Thomas Speck, University of Freiburg, Freiburg (Germany), Research Collaboration
Dr. Seisuke Kimura, Kyoto Sangyo University, Kyoto (Japan), Research Collaboration
Dr. Haruka Tomabe, Saitama University, Saitama (Japan), Research Collaboration

Research Personnel

Eftychis Frangedakis , Senior Staff Scientist
Cedric Finet, Senior Staff Scientist
Chiyo Jinno, Postdoctoral Scholar
Antonio Wai Ming Casablanca, Visiting PhD student researcher
Andrew Liu, Research Unit Technician
Yoshiko Harukawa, Research Unit Technician
Alex Wardale, Research Unit Technician
Anna Salamovska, Research Intern
Anne Tanja Schmitt, Research Intern
Merle Emmelie Wagner, Research Intern

Scholarly Contributions and Creative Productions (by Faculty)

Presentation at Conference

1. Nakayama, N.
飛行植物の拡散戦略：生体機能解析で未来の植物分布や発生を予測する. 定量生物の会福井キャラバン 2025 2025.
2. Nakayama, N.
Predicting Future Plant Forms with Mechano-Eco-Evo-Devo Insights. American Society of Plant Biologists annual conference Plant Biology 2025 (Planary Symposia: Biomechanics) 2025.
3. Nakayama, N.
合成生物学を用いた植物発生工学（トップダウンとボトムアップのアプローチ）. 日本植物バイオテクノロジー学会大会 2025.
4. Nakayama, N.
風によるシロイヌナズナ主幹の構造的可塑性. 第 48 回日本分子生物学会年会 2025.
5. Nakayama, N.

植物形態の未来予測—工学的アプローチで環境変化に強い生体構造を探る. 植物科学シンポジウム 2025 2025.

6. Nakayama, N.

Predicting Future Plant Forms with Mechano-Eco-Evo-Devo . Genetic Society Seed Plant Research Meeting 2025.

Honors, Awards & Fellowships

Term 2 2025 – Term 3 2027 Grants-in-Aid Research Start Support, 研究活動スタート支援, 2025, 科研費 [Fiscal Year: 2025-04-01]

Term 1 2023 - Term 3 2028 Schmidt Science Polymath Award , シュミット・サイエンス・ポリマス賞, 2023, Schmidt Science [Fiscal Year: 2023-09-01]

External Service

Term 2 2026 - Term 2 2030 日本植物生理学会国際委員会, 日本植物生理学会 [Fiscal Year: 2026-03-01]

Term 2 2025 - Ongoing Newton International Fellowship Review Panel, The Royal Society [Fiscal Year: 2025-04-01]

Term 2 2025 - Ongoing Quantitative Plant Biology Editorial Board, Cambridge University Press [Fiscal Year: 2025-04-01]

Term 2 2025 - Ongoing New Phytologist Editorial Board, New Phytologist Foundation/Wiley [Fiscal Year: 2025-04-01]

Other Institutional Service

Term 2 2025 - Term 3 2026 OIST Science Foresight, (University) [Fiscal Year: 2025-04-01]

Workshops and Seminars [Organized and Hosted by Faculty/Units]

Speaker Name(s)	Title	Location	Date
Mr. Sam Mason	Changes in the wind: An investigation of plant structural resilience	L4E01	2026-02-02
Dr. Haruka Tomabe	Numerical modeling of crop lodging based on continuum mechanics	L4E01	2026-02-02
Dr. Anjana Shripati Hegde	Exploring the Interaction Network of TARANI-Ubiquitin Specific Protease-14 in Arabidopsis thaliana	C700, Lab 3	2026-01-15
Prof. John Zhang	Immersive Ecologies: Translating Habitat Data into Virtual Environments	L4E01	2025-07-22
Prof. Mao Yanlan	Form and Function: From living to non-living and back again	L4E01	2025-07-22
Brian Hanotte	Eyespots originated multiple times independently across the Lepidoptera	L4F23	2025-03-06
Dr. Cédric Finet	Insect cuticle and associated structures: evolution, development, and bioinspiration	L4F23	2025-03-06
Dr. Chiyo Jinno	Abscisic acid signaling regulates plasmodesmata density for plant cell-to-cell communication in the moss Physcomitrium patens	L4F23	2025-03-06