

## **Unit Name**

Cell Division Dynamics Unit  
Associate Professor Tomomi Kiyomitsu

## **Collaborations**

Azusa Inoue, RIKEN, Japan, Spindle assembly in mouse zygotes and early embryos  
Timothy J. Mitchison, Harvard Medical School, USA, Cytoplasmic streaming and cytokinesis in early embryos  
Luolan Bai, Harvard Medical School, USA, Cytoplasmic streaming and cytokinesis in early embryos  
Merve Aslan, UC Berkeley, USA, In vitro dynein motility assay  
Ahmet Yildiz, UC Berkeley, USA, In vitro dynein motility assay  
Keishi Shintomi, RIKEN, Japan, CDK1-cyclin B1 purification

## **Research Personnel**

Diana Romero Zamora, Postdoctoral Scholar  
Yutei Takahashi, PhD student  
Takahiro Yamamoto, Postdoctoral Scholar  
Toane Arata, Research Unit Technician  
Marvin van Toorn, Postdoctoral Scholar  
Sumika Hagihara, Research Unit Technician  
Sarah Ikeda, PhD student  
Yang Ming, PhD student  
Tolkyn Seterkhan, PhD student  
Aurellia Ramara Winaya, PhD student  
Yoko Nakasone, Research Assistant (Part-time)  
Ai Kiyomitsu, Science and Technology Associate

## **Scholarly Contributions and Creative Productions (by Faculty)**

### **Publication**

1. Van Toorn M, Shintomi K, and Kiyomitsu T.  
CDK1-dependent N-terminal NuMA phosphorylation promotes dynein-dynactin-NuMA assembly for accurate chromosome segregation  
*bioRxiv*: July 2025 doi: <https://doi.org/10.1101/2025.07.19.665708>

### **Poster Presentation at Conference**

1. Kiyomitsu, T.; Kiyomitsu, A.  
Dynein's Cytoplasmic Halo Promotes Anaphase Aster Expansion and Pulling While Suppressing Ectopic Furrow Formation in Large Medaka Embryos. *Dynein 2025* 2025.

### **Presentation at Conference**

1. Kiyomitsu, T.  
Unexpected Features of Early Embryonic Division in Medaka. Annual Meeting of Japan Society for Cell Biology 2025 2025.
2. Kiyomitsu, T.  
Intra-Cellular Dynamics in Zygotes and Early Embryos. Japan Society of Cell Biology (JSCB) annual meeting 2025.
3. Kiyomitsu, T.  
Unexpected Features of Early Embryonic Division in Medaka. OIST-Keio Showcase talk Series 7: Science meets Society: Frontiers in Interdisciplinary Approaches to Life Sciences 2025.
4. Kiyomitsu, T.  
Unexpected Features of Early Embryonic Division in Medaka. OIST-JST ActX joint mini-symposium 2025.

### **Scholarly Contributions (by Unit Members)**

Name of Unit Member	Type	Title
Takahiro Yamamoto	Poster Presentation at Conference	KIFC1 function for bipolar spindle assembly in medaka early embryos
Yang Ming	Poster Presentation at Conference	Balanced RCC1 expression ensures accurate spindle assembly in medaka early embryos
Aurellia Ramara Winaya	Poster Presentation at Conference	AID-mediated rapid protein knockdown reveals unexpected features of p150 dynactin subunit for dynactin assembly and function in mitosis

### **Honors, Awards & Fellowships**

Term 2 2025 - Term 2 2025	NIKON JOICO AWARD, ニコン最優秀 JOICO 賞, 2025, NIKON [Fiscal Year: 2025-04-01]
Term 1 2023 - Ongoing	JST FOREST Researcher, JST 創発研究者, 2022, JST [Fiscal Year: 2023]

### **Honors, Awards & Fellowships [By Unit Members Only]**

Term 1 2023 - Term 1 2025	Marvin van Toorn, JSPS postdoctoral fellow, 日本学術振興会外国人特別研究員, 2023, JSPS, 細胞周期依存的なダイニンアダプターのスイッチング機構 [Fiscal Year: 2023-10-01]
Term 1 2025 – Term 1 2027	Diana Romero Zamora, JSPS postdoctoral fellow, 日本学術振興会外国人特別研究員, 2025, JSPS, 体細胞モデルと異なる卵割期特異的なセントロメア形成機構の理解 [Fiscal Year: 2025-10-01]

### **Outreach Activities [For Unit Members Only]**

Term 2 2025	Sarah Ikeda and Aurellia Ramara Winaya, SEED program support, OIST [Fiscal Year: 2025-01-16]
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### **Workshops and Seminars [Organized and Hosted by Faculty/Units]**

Speaker Name(s)	Title	Location	Co-Organizers	Date
Minako Ueda, Miho Osugi, Hiroto Fukushima, Kei Miyamoto, Tomomi Kiyomitsu	Workshop in JSCB 2025	Aichi	Azusa Inoue	2025-07-17
Iain Cheeseman etc (18 invited speakers)	OIST workshop 2026	OIST	Keiko Kono, Franz Meitinger, and Midori Ohta	2026-03-02

