



Public announcement of Collaborative Research, Phase 2

2025.05.09

Research Theme	How the balance between cell-cell and cell-matrix adhesions drives collective migration of pancreatic cancer cells		
Research Period	Jan. 1, 2023 - Dec. 31, 2024		
Researcher Information	Technion	 Haguy Wolfenson Associate Professor Faculty of Medicine	
	Tokushima Univ.	 Shigenobu Yonemura Professor Graduate School of Biomedical Sciences, Medical Science	
Publication List (Published Papers, conference, presentations, etc)	<p>Publication</p> <ul style="list-style-type: none">• Shusaku Kurisu and Shigenobu Yonemura, 'Fluorescent tagging of endogenous proteins and its application to protein quantification in subcellular compartments', <i>Saibo</i> 55 (2023), 320-322.• Gharaba S, Paz O, Feld L, Abashidze A, Weinrab M, Muchtar N, Baransi A, Shalem A, Wolf L, Wolfenson H* & Weil M*. Perturbed actin cap as a new personalized biomarker in primary fibroblasts of Huntington's disease patients. <i>Frontiers in Cell and Developmental Biology</i>, 2023. 11: 1013721. doi: 10.3389/fcell.2023.1013721. *Co-corresponding Author.• Melamed S, Zaffryar-Eilot S, Nadjar-Boger E, Aviram R, Zhao H, Yaseen-Badarne W, Kalev-Altman R, Sela-Donenfeld D, Lewinson O, Astrof S, Hasson P* & Wolfenson H*. Initiation of fibronectin fibrillogenesis is an enzyme dependent process. <i>Cell Reports</i>, 2023. 42: 112473. doi: 10.1016/j.celrep.2023.112473• Shi L, Nadjar-Boger E, Jafarinia H, Carlier A, Wolfenson H. YAP mediates apoptosis through failed integrin adhesion reinforcement. <i>Cell Reports</i>, 2024. 43: 113811. Doi: 10.1016/j.celrep.2024.113811.• Fukuda K, Shimi T, Shimura C, Ono T, Suzuki T, Onoue K, Okayama S, Miura H, Hiratani I, Ikeda K, Okada Y, Dohmae N, Yonemura S, Inoue A, Kimura H, Shinkai Y. Epigenetic plasticity safeguards heterochromatin configuration in mammals. <i>Nucleic Acids Res.</i> 2023 Jul 7;51(12):6190-6207. doi: 10.1093/nar/gkad387.• Kira A, Tatsutomi I, Saito K, Murata M, Hattori I, Kajita H, Muraki N, Oda Y, Satoh S, Tsukamoto Y, Kimura S, Onoue K, Yonemura S, Arakawa S, Kato H, Hirashima T, Kawane K. Apoptotic extracellular vesicle formation via local phosphatidylserine exposure drives efficient cell extrusion. <i>Dev Cell</i>. 2023 Jul 24;58(14):1282-1298.e7. doi: 10.1016/j.devcel.2023.05.008.• Nishida H, Albero AB, Onoue K, Ikegawa Y, Sulekh S, Sakizli U, Minami Y, Yonemura S, Wang YC, Yoo SK. Necrosensor: a genetically encoded fluorescent sensor for visualizing necrosis in <i>Drosophila</i>. <i>Biol Open</i>. 2023 Dec 21:bio.060104. doi: 10.1242/bio.060104.• Sakai M, Ohnishi K, Masuda M, Harumoto E, Fukuda T, Ohnishi A, Ishii S, Ohminami H, Yamanaka-Okumura H, Ohashi K, Itakura E, Horikawa K, Yonemura S, Hara T, Taketani Y. Modulations of the mTORC2-GATA3 axis by an isorhamnetin activated endosomal-lysosomal system of the J774.1 macrophage-like cell line. <i>J Clin Biochem Nutr</i>. 2024 Jul;75(1):24-32. doi: 10.3164/jcbn.24-22.		



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• Iwama Y, Sugase-Miyamoto Y, Onoue K, Uyama H, Matsuda K, Hayashi K, Akiba R, Masuda T, Yokota S, Yonemura S, Nishida K, Takahashi M, Kurimoto Y, Mandai M. Transplantation of human pluripotent stem cell-derived retinal sheet in a primate model of macular hole. *Stem Cell Reports*. 2024 Sep 19:S2213-6711(24)00264-9. doi: 10.1016/j.stemcr.2024.09.002.

Conference (Oral Presentation)

- Keitaro Shibata, Koki Ishida, Chihori Asano, Shigenobu Yonemura, 'Rheological Measurements on the Function of Epithelial Sheet Tension in Wound Closure' *The 7th Annual Meeting of the Japanese Society of Mechanobiology* March 29-30, 2023 Sapporo
- **Haguy Wolfenson**, YAP mediates apoptosis through failed adhesion reinforcement, MBI Mechanobiology symposium, Israel, May 10, 2023. (Invited Talk)