

# Keita Ashida

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## Education

2016 Sep.–2019 Sep. Ph.D. (Science), Keio University

Thesis Title: The input-output relationship under environmental noise in cellular and sub-cellular system

Supervisors: Kotaro Oka

2015 Apr.–2016 Sep. M.Sc., Keio University

2011 Apr.–2015 Mar. B.Sc., Keio University

## Honours and Awards

2020 Mar. Fujiwara Award (Fujiwara Scholarship Fund, Keio University)

2019 Mar. – 2019 Sep. KLL Ph.D. Program Research Grant

2018 Apr. – 2019 Mar. KLL Ph.D. Program Research Grant

2017 Apr. – 2018 Mar. Graduate School Doctoral Student Aid Program, Keio University

2017 Apr. – 2018 Mar. KLL Ph.D. Program Research Grant

2016 Nov. Student Presentation Award at The 54th Annual Meeting of the Biophysical Society Japan

2016 Sep. – 2019 Aug. Yoshida Doctor 21 (Yoshida Scholarship Foundation)

2016 Oct. (Declined) Research Fellowships for Young Scientists DC1

2015 Apr. – 2016 Sep. Japan Student Services Organization Student Loan Repayment Exemption

## Publications

### Journals

- [1] **K Ashida**, H Shidara, K Hotta, K Oka. Optical dissection of synaptic plasticity for early adaptation in *Caenorhabditis elegans*, *Neuroscience*, 2020 Jan 21; 428: 112-121 DOI: [10.1016/j.neuroscience.2019.12.02](https://doi.org/10.1016/j.neuroscience.2019.12.02)
- [2] H Mori, **K Ashida**, H Shidara, T Nikai, K Hotta, K Oka. Serotonin modulates behavior-related neural activity of RID interneuron in *Caenorhabditis elegans*, *PLoS One*, 2019 Dec 4;14(12): e0226044 DOI: [10.1371/journal.pone.0226044](https://doi.org/10.1371/journal.pone.0226044)
- [3] K Shimizu\*, **K Ashida\***, K Hotta, K Oka. Food deprivation changes chemotaxis behavior in *Caenorhabditis elegans*, *Biophysics and Physicobiology*, 2019, 16: 167-172 (\*both authors contributed equally) DOI: [10.2142/biophysico.16.0\\_167](https://doi.org/10.2142/biophysico.16.0_167)
- [4] **K Ashida**, K Hotta, K Oka. The input–output relationship of AIY interneurons in *Caenorhabditis elegans* in noisy environment, *iScience*, 2019 Jul 23;19:191-203 DOI: [10.1016/j.isci.2019.07.028](https://doi.org/10.1016/j.isci.2019.07.028)
- [5] **K Ashida**, T Kato, K Hotta, K Oka. Multiple tracking and machine learning reveal dopamine modulation for area-restricted foraging behaviors via velocity change in *Caenorhabditis elegans*, *Neuroscience Letters*, 2019 Jul 27;706:68-74 DOI: [10.1016/j.neulet.2019.05.011](https://doi.org/10.1016/j.neulet.2019.05.011)
- [6] **K Ashida**, K Oka. Stochastic thermodynamic limit on *E. coli* adaptation by information geometric approach, *Biochemical and Biophysical Research Communications*, 2019 Jan 15;508(3):690-694 DOI: [10.1016/j.bbrc.2018.11.115](https://doi.org/10.1016/j.bbrc.2018.11.115)
- [7] T Yoshimizu, H Shidara, **K Ashida**, K Hotta, K Oka. Effect of interactions among individuals on the chemotaxis behaviours of *Caenorhabditis elegans*, *Journal of Experimental Biology*, 2018 Jun 12;221(Pt 11) DOI: [10.1242/jeb.182790](https://doi.org/10.1242/jeb.182790)