

Main publications

1. **T. Yanagida**, M. Nakase, K. Nishiyama and F. Oosawa: Direct observation of motion of single F-actin filaments in the presence of myosin **Nature**. 307, 58-60 (1984)
2. **T. Yanagida**, T. Arata and F. Oosawa: Sliding distance of actin filament induced by a myosin crossbridge during one ATP hydrolysis cycle. **Nature**. 316, 366-369 (1985)
3. Y. Harada, A. Noguchi, A. Kishino and **T. Yanagida**: Sliding movement of single actin filaments on one-headed myosin filaments. **Nature**. 326, 805-808 (1987)
4. A. Kishino and **T. Yanagida**: Force measurements by micromanipulation of a single actin filament by glass needles. **Nature**. 334, 74-76 (1988)
5. A. Ishijima, T. Doi, K. Sakurada and **T. Yanagida**: Sub-piconewton force fluctuations of actomyosin in vitro. **Nature**. 352, 301-306 (1991)
6. T. Funatsu, Y. Harada, M. Tokunaga, K. Saito and **T. Yanagida**: Imaging of single fluorescent molecules and individual ATP turnovers by single myosin molecules in aqueous solution. **Nature**. 374, 555-559 (1995)
7. R. D. Vale, T. Funatsu, D. W. Pierce, L. Romberg, Y. Harada and **T. Yanagida**: Direct observation of single kinesin molecules moving along **Nature**. 380, 451-453 (1996)
8. A. Ishijima, H. Kojima, T. Funatsu, M. Tokunaga, H. Higuchi, H. Tanaka and **T. Yanagida**: Simultaneous observation of individual ATPase and mechanical events by a single myosin molecule during interaction with actin. **Cell**. 92, 161-171 (1998)
9. C. Shingyoji, H. Higuchi, M. Yoshimura, E. Katayama and **T. Yanagida**: Dynein arms are oscillating force generators. **Nature**. 393, 711-714 (1998)
10. H. Yokota, K. Saito and **T. Yanagida**: Single molecule imaging of fluorescently-labeled proteins on metal by surface plasmons in aqueous solution. **Phys. Rev. Letter**. 80(20), 4606-4609 (1998)
11. K. Kitamura, M. Tokunaga, A. H. Iwane and **T. Yanagida**: A single myosin head moves along an actin filament with regular steps of ~5.3nm. **Nature**. 397, 129-134 (1999)
12. Y. Sambongi, Y. Iko, M. Tanabe, H. Omote, A. Iwamoto-Kihara, I. Ueda, **T. Yanagida**, Y. Wada and M. Futai: Mechanical Rotation of the c Subunit Oligomer in the ATP Synthase (FoF1): Direct Observation. **Science**. 286, 1722-1724 (1999)
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14. Y. Sako, S. Minoguchi and **T. Yanagida**: Single-molecule imaging of EGFR signaling on the surface of living cells. **Nature Cell Biology** 2, 168-172 (2000)
15. M. Ueda, Y. Sako, T. Tanaka, P. Devreotes and **T. Yanagida**: Single molecule analysis of chemotactic signaling in *Dictyostelium* cells. **Science** 294, 864-867 (2001)
16. M. Nishiyama, E. Muto, Y. Inoue, T. Yanagida, H. Higuchi, Substeps within the 8-nm step of the ATPase cycle of single kinesin molecules, **Nature Cell Biology**, 3, 425-428 (2001)
17. H. Tanaka, K. Homma, A. H. Iwane, E. Katayama, R. Ikebe, J. Saito, **T. Yanagida** and M. Ikebe: The motor domain determines the large step of myosin-V. **Nature** 415, 192-195 (2002)
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19. T. Murata, N. Matsui, S. Miyauchi, Y. Kakita, **T. Yanagida**, _Discrete stochastic process underlying perceptual rivalry.
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20. K. Kitamura, M. Tokunaga, S. Esaki, A. H. Iwane and **T. Yanagida**. Mechanism of muscle contraction based on stochastic properties of single actomyosin motors observed in vitro. **Biophysics**, 1, 1- 19 (2005)

21. Y. Taniguchi, M. Nishiyama, Y. Ishii, **T. Yanagida**. Entropy rectifies the Brownian steps of kinesin,
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22. J. Kozuka, H. Yokota, Y. Arai, Y. Ishii, **T. Yanagida**, _Dynamic polymorphism of single actin molecules in the actin filament,
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23. Y. Komori, A. Iwane and **T. Yanagida**: Myosin-V makes two Brownian 90° rotations per 36 nm step.
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24. M. Nishikawa, H. Takagi, T. Shibata, A. H. Iwane, **T. Yanagida**, _Fluctuation Analysis of Mechanochemical Coupling Depending on the Type of Biomolecular Motors,
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28. T. Fujii, A. H. Iwane, **T. Yanagida**, K. Namba. Direct visualization of secondary structures of F-actin by electron cryomicroscopy. **Nature** in press (2010)

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1. **T. Yanagida**, K. Kitamura, H. Tanaka, A. H. Iwane and S. Esaki: Single molecule analysis of the actomyosin motor.

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2. Y. Ishii and **T. Yanagida**: Single Molecule Detection in Life Science.
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3. Y. Sako and **Yanagida, T.** (2003) :Single-molecule visualization in cell biology.
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4. A. Ishijima and **T. Yanagida**: Single Molecule Nano-Bioscience.
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5. Y. Ishii, Kitamura K, Tanaka H, **Yanagida T**: Molecular motors and single-molecule enzymology.
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6. **T. Yanagida** and Y. Ishii (ed) Single Molecule Dynamics in Life Science
Book (Wiley-VCH) (2009)