

# Toshinobu Shida, Ph.D.

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German Center for Neurodegenerative Diseases (DZNE)

## Postdoctoral researcher

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## Research Expertise

My research focus is on understanding how monomeric amyloid beta ( $A\beta$ ) converts its structure to amyloid fibrils in the context of seeding reactions. I am particularly interested in investigating the cross-seeding reaction between  $A\beta$  and ASC specks. I approach this question using a broad range of techniques, including biophysics, biochemistry, and structural biology.

## Education / Training

Tokyo Institute of Technology, Japan, Ph.D. in Biological Information, 2020

University of California at Berkeley, USA, B.A. in Molecular and Cell Biology, 2008

## Appointments / Positions Held

2020 - Present

Postdoctoral researcher in DZNE, Germany

2019 - 2020

Research part-time worker in RIKEN Center for Brain Science (CBS), Japan

2013 - 2019

Doctoral student in the Dept. of Biological Information, Tokyo Institute of Technology, Japan

2012 - 2013

Technical staff in RIKEN CBS, Japan

2011 - 2012

Doctoral student in the Dept. of Molecular Genetics and Cell Biology, the University of Chicago, USA

2008 - 2011

Research assistant in the Dept. of Molecular and Cellular Physiology, Stanford University School of Medicine, USA

## Honors / Awards

2020

Travel Award at IUBMB Focused Meeting on Neurodegenerative Diseases, Taipei, Taiwan

2015

Best Poster Prize at RIKEN Summer School Poster Session, Saitama, Japan

2013 - 2016

RIKEN Junior Research Associate Fellowship  
2008

Outstanding Poster Award at Undergraduate Research Poster Session, Berkeley, USA

## Most Relevant Publications

**1. Shida T**, Kamatari YO, Yoda T, Yamaguchi Y, Feig M, Ohhashi Y, Sugita Y, Kuwata K, Tanaka M. Short disordered protein segment regulates cross-species transmission of a yeast prion. *Nat Chem Biol* 2020;16: 756-765 (cover).

**2.** Ohhashi Y, Yamaguchi Y, Kurahashi H, Kamatari YO, Sugiyama S, Uluca B, Piechatek T, Komi Y, **Shida T**, Müller H, Hanashima S, Heise H, Kuwata K, Tanaka M. Molecular basis for diversification of yeast prion strain conformation. *Proc Natl Acad Sci U S A* 2018;115:2389-2394.

**3.** Thauvin-Robinet C, Lee JS, Lopez E, Herranz-Pérez V, **Shida T**, Franco B, Jegu L, Ye F, Pasquier L, Loget P, Gigot N, Aral B, Lopes CA, St-Onge J, Bruel AL, Thevenon J, González-Granero S, Alby C, Munnich A, Vekemans M, Huet F, Fry AM, Saunier S, Rivière JB, Attié-Bitach T, Garcia-Verdugo JM, Faivre L, Mégarbané A, Nachury MV. The oral-facial-digital syndrome gene C2CD3 encodes a positive regulator of centriole elongation. *Nat Genet* 2014;46:905-911.

**4.** Howes SC, Alushin GM, **Shida T**, Nachury MV, Nogales E. Effects of tubulin acetylation and tubulin acetyltransferase binding on microtubule structure. *Mol Biol Cell* 2014;25:257-266.

**5.** Montagnac G, Meas-Yedid V, Irondele M, Castro-Castro A, Franco M, **Shida T**, Nachury MV, Benmerah A, Olivo-Marin JC, Chavrier P.  $\alpha$ TAT1 catalyses microtubule acetylation at clathrin-coated pits. *Nature* 2013;502:567-570.

**6. Shida T**, Cueva JG, Xu Z, Goodman MB, Nachury MV. The major  $\alpha$ -tubulin K40 acetyltransferase  $\alpha$ TAT1 promotes rapid ciliogenesis and efficient mechanosensation. *Proc Natl Acad Sci U S A* 2010; 107:21517-21522.

**7.** Jin H, White SR, **Shida T**, Schulz S, Aguiar M, Gygi SP, Bazan JF, Nachury MV. The conserved Bardet-Biedl syndrome proteins assemble a coat that traffics membrane proteins to cilia. *Cell* 2010;141:1208-1219 (cover).