August, 2015

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Team Leader
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RIKEN Center for Developmental Biology
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Academic Positions

RIKEN Center for Developmental Biology — Kobe, Japan
Team Leader — 2013 – Present

Princeton Univesity — Princeton, USA
Postodoctoral Fellow — 2007 – 2013

University of Chicago — Chicago, USA
Ph.D. Student — 1999 – 2006

Education and Training

Princeton University — Princeton, USA
Postodoctoral research. Department of Molecular Biology — 2007 – 2013
Advisor: Dr. Eric Wieschaus

Research project:
Cellular mechanisms underlying the formation of cephalic furrow and dorsal transverse folds during *Drosophila* gastrulation.

University of Chicago — Chicago, USA
Ph.D. Department of Organismal Biology and Anatomy — 2006
Advisor: Dr. Edwin Ferguson

Thesis project:
Spatial regulation of BMP signaling during dorsal-ventral patterning in the *Drosophila* embryo.

National Taiwan University — Taipei, Taiwan
M.S., Department of Zoology — 1998
Advisor: Dr. Tze-Bin Chou

National Taiwan University — Taipei, Taiwan
B.S., Department of Zoology — 1996

Research Grants

Young Investigator Grant — 2015 – 2017
Human Frontier Science Program (HFSP)

Grants-in-aid Scientific Research (B) — 2015 – 2017
Japan Society for the Promotion of Science (JSPS)

Fellowships and Awards

Postdoctoral Research Fellowship — 2008 – 2010
Helen Hay Whitney foundation

Larry Sandler Memorial Award for best dissertation in *Drosophila* research — 2007
The Genetics Society of America

Best Dissertation in Biological Sciences — 2007

University of Chicago, Division of Biological Sciences

Teaching Experience

Teaching Assistant: Advanced Developmental Biology	2005
Teaching Assistant: Vertebrate Developmental Biology	2002
Teaching Assistant: Genetics Labs	1997

Conference and invited talks

Linking epithelial apical-basal polarity to cell height determination via the microtubule minus end protector Patronin

56th Annual *Drosophila* Research Conference. Chicago, USA March, 2015

Epithelial origami: from cell polarity, adhesion mechanics to the folding of epithelial tissues

Department of Molecular Genetic and Cell Biology, University of Chicago, Chicago USA March, 2015

The mechanical control of epithelial invagination via α-Catenin

Force in Development, 62nd NIBB conference, Okazaki, Japan Nov, 2014

Linking epithelial polarity to cell height determination: *Drosophila* CAMSAP homolog Patronin as the nexus connecting polarity, microtubules and cell shape control

IGDB-KAIST-CDB joint symposium, Beijing, China Oct, 2014

***Drosophila* CAMSAP homolog Patronin controls the positioning of adherens junctions via Bazooka translocation during initiation of epithelial folding that requires differential apical-basal polarity**

Epithelia: The Building Blocks of Multicellularity, EMBL symposium, Heidelberg, Germany Aug, 2014

Epithelial origami: novel mechanisms for epithelial folding: On the control of epithelial invagination

Department of Life Sciences, National Taiwan University, Taipei, Taiwan Aug, 2014

Novel mechanisms for the control of cell shape and tissue folding: from cell polarity to tissue mechanics

2014 Annual Developmental Biology Retreat, Keelung, Taiwan Aug, 2014

Differential modification of apical-basal polarity as a novel mechanism for the initiation of epithelial folding

66th Annual Meeting of the Japanese Society of Cell Biology, Nara, Japan June, 2014

47th Annual Meeting of the Japanese Society of Developmental Biology, Nagoya, Japan May, 2014

Quantitative 4D analyses of epithelial folding during *Drosophila* gastrulation

International Workshop on Quantitative Biology 2013, Osaka University, Osaka, Japan Nov, 2013

The mechanical control of epithelial invagination via α-Catenin

Force in Development, 62nd NIBB conference, Okazaki, Japan Nov, 2014

How changes in cell polarity organize the folding of a tissue

EMBL, Heidelberg, Germany Aug, 2013

Memorial Sloan-Kettering Cancer Center, New York, USA July, 2013

Gurdon Institute, University of Cambridge, Cambridge, UK March, 2013

Institute of Molecular Biology, Academia Sinica, Taipei, Taiwan Feb, 2013

Riken Center for Developmental Biology, Kobe, Japan Jan, 2013

Department of Biology, Indiana University, Bloomington, USA Dec, 2012

Differential positioning of adherens junctions initiates epithelial folding during *Drosophila* gastrulation

53rd Annual *Drosophila* Research Conference. Chicago, USA April, 2012

1st Asia-Pacific *Drosophila* Research Conference. Taipei, Taiwan May, 2011

Annual Meeting of Helen Hay Whitney Fellows. Boston, USA Nov, 2010

Spatial regulation of BMP signaling during dorsal-ventral patterning in the *Drosophila* embryo

48th Annual *Drosophila* Research Conference. The Larry Sandler Memorial Lecture. Philadelphia, USA March, 2007

Spatial bistability of Dpp-receptor interactions during *Drosophila* dorsal-ventral patterning

46th Annual *Drosophila* Research Conference, 2005. San Diego, CA, USA April, 2005

DPP localization is controlled by extracellular ligand transport and intracellular receptor downregulation during early embryonic dorsoventral patterning

18th European *Drosophila* Research Conference. Goettingen, Germany Oct, 2003

Publications

Khan, Z., **Wang, Y.-C.**, Wieschaus, E. F. and Kaschube, M. (2014) Quantitative 4D analyses of epithelial folding during *Drosophila* gastrulation. *Development* 141, 2895-2900.

Gavin-Smyth, J., **Wang, Y.-C.**, Butler, I. and Ferguson, E. L. (2013) A genetic network conferring canalization to a bistable patterning system in *Drosophila*. *Current Biology* 23: 2296-2302.

Wang, Y.-C., Khan, Z., and Wieschaus, E. F. (2013) Distinct Rap1 activity states control the extent of epithelial invagination via α-Catenin. *Developmental Cell* 25: 299-309.

Wang, Y.-C., Khan, Z., Kaschube, M. and Wieschaus, E. F. (2012) Differential positioning of adherens junctions is associated with initiation of epithelial folding. *Nature* 484: 390-393.

Wang, Y.-C. and Ferguson, E. L. (2005) Spatial bistability of Dpp-receptor interactions during *Drosophila* dorsal-ventral patterning. *Nature* 434: 229-234.

Podos, S. D., Hanson, K. K., **Wang, Y.-C.** and Ferguson, E. L. (2001) The DSmurf ubiquitin-protein ligase restricts BMP signaling spatially and temporally during *Drosophila* embryogenesis. *Developmental Cell* 1: 567-578.