



## CURRICULUM VITAE

**Ying-Chou Chen (陳澄州)**  
Synthetic Biology Center  
Massachusetts Institute of Technology

### CONTACT:

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### CAREER MOTIVATION & SPECIALITIES

Being a member in the community of eukaryotic synthetic biology, I am excited to use engineered tools to explore complex biological systems. I am developing combinatorial strategies for a wide range of genetic screens, including aging and neurodegenerative disorders. In the future, I would like to pursue a career in improving medical diagnostics and therapeutics.

My scientific expertise includes high-throughput screening platforms, genome engineering, synthetic biology, yeast genetics, protein biochemistry, and neuronal cell culture.

### EDUCATION & EMPLOYMENT

2013 – Present Postdoctoral Scholar  
Massachusetts Institute of Technology, Cambridge, MA 02139

2006 – 2013 Ph.D., Genetics  
Michigan State University, East Lansing, MI 48824

2005 – 2006 Research Assistant  
Institute of Biomedical Sciences, Academia Sinica, Taiwan

2002 – 2004 M.S., Biochemistry and Molecular Biology  
National Yang-Ming University, Taipei, Taiwan

1998 – 2002 B.S., Biomedical Imaging and Radiological Sciences  
National Yang-Ming University, Taipei, Taiwan

### HONORS & AWARDS

2013 MIT Postdoctoral Association (PDA) Travel Awards

2012 Dissertation Completion Fellowship (MSU)

2012 Genetics Program Dissertation Fellowship (MSU)

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2010	Competitive International Conference Travel Award (Cold Spring Harbor Laboratory Meeting)
2009	Offices of the Graduate School and International Studies Travel Grant (MSU)
2006 – 2008	Studying Abroad Award (Taiwan)
2006 – 2007	Van Andel Research Institute Fellowship
2004	Yin Hsun-Ruo Scholarship
2004	Awards of Excellency in the Academic Competition of Master Thesis
2003	Memory of Professor Albert Ly-young Shen Scholarship
2002	Honor of Presidential Award

## PEER-REVIEWED PUBLICATIONS

1. Chen Y.C., Kenworthy J., Gabrielse C., Hänni C., Zegerman P., and Weinreich M. DNA replication checkpoint signaling depends on a Rad53-Dbf4 N-terminal interaction in *Saccharomyces cerevisiae*. *Genetics*, 194(2):389-401 (2013).
2. Chen Y.C., and Weinreich M. Dbf4 regulates the Cdc5 polo-like kinase through a distinct non-canonical binding interaction. *J Biol Chem.*, 31;285(53):41244-54 (2010).
3. Miller C.T., Gabrielse C., Chen Y.C., and Weinreich M. Cdc7p-Dbf4p regulates mitotic exit by inhibiting Polo kinase. *PLoS Genet.* 5(5):e1000498 (2009).

## MANUSCRIPTS IN PREPARATION

1. Chen Y.C., Fahim F., and Lu T. Multiplex targeting the regulatory network of  $\alpha$ -synuclein toxicity by using CrisprTF. (Soon to be submitted to *Nature*)
2. Chen Y.C., Kenworthy J., Boone C., and Weinreich M. Functional characterization of the Dbf4 N-terminus by a genome-wide synthetic lethality screen

## TEACHING EXPERIENCE & MENTORING

2015 January	Instructor, MIT Independent Activities Period (IAP) Course: Advanced techniques to study complex networks in human diseases
2013 – Present	Fahim Farzadfard, Ph.D. student in the Lu lab Microbiology Program at MIT.
2013 – 2014	Allen Cheng, M.D.-Ph.D. student in the Lu lab Harvard-MIT Health Sciences and Technology Program



2013 Fall Semester    James Woodward Weis, Rotation graduate student in the Lu lab  
Computational and Systems Biology Program at MIT.

2010 – 2012            Jessica Kenworthy, Grand Valley State University  
Meijer Student Internship Program

2010 Fall Semester    Teaching Assistant, Michigan State University  
Course: Fundamental Genetics

## REFERENCES

Timothy K. Lu, M.D., Ph.D. (Current research advisor)  
Associate Professor  
Synthetic Biology Group  
Research Laboratory of Electronics  
Dept. of Electrical Engineering and Computer Science  
Dept. of Biological Engineering  
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Michael Weinreich, Ph.D. (Former research mentor)  
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Van Andel Research Institute  
333 Bostwick Ave., N.E.  
Grand Rapids, MI 49503  
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Min-Hao Kuo, Ph.D. (Thesis committee member)  
Associate Professor, Department of Biochemistry & Molecular Biology  
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