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Academic History:

B.S. 1983, National Taiwan University, Department of Chemistry

M.S. 1985, National Yang-Ming Medical College, Institute of Biochemistry

Ph.D. 1992, University of North Carolina at Chapel Hill, Department of Biochemistry and Biophysics

Professional/Scientific Career:

Current Positions:

2012- Now, Director & Professor , Institute of Biochemistry and Molecular Biology, College of Medicine, National Taiwan University, Taipei, Taiwan, ROC

Experiences:

2009- 2010, Visiting Scientist, Department of Biochemistry, University of Washington, Seattle, United States

2002- 2012, Professor, Institute of Biopharmaceutical Sciences, National Yang-Ming University, Taipei, Taiwan, ROC

2007- 2009, Secretary General, The Taiwan Society for Biochemistry and Molecular Biology, Tainan, Taiwan, ROC

2003- 2005, Adjunct Professor, Department of Chemistry, National Taiwan University, Taipei, Taiwan, ROC

1996- 2002, Associate Professor, Institute of Biopharmaceutical Sciences, National Yang-Ming University, Taipei, Taiwan, ROC

1995- 1996, Postdoctoral Fellow, Department of Molecular Biology, Princeton University, New Jersey, United States

1992- 1995, Postdoctoral Fellow, Fred Hutchinson Cancer Research Center, Basic Sciences, Washington, United States

2000- 2002, Adjunct Associate Professor , Department of Chemistry, National Taiwan University, Taipei, Taiwan, ROC

Research Area/ Interests:

Stress Response and Aging

Telomeres are the physical ends of eukaryotic linear chromosomes. They are important for the maintenance of chromosome integrity. One of the main goals of my research is to understand the structure and function of telomeres. Using budding yeast *Saccharomyces cerevisiae* as a model organism, the function of a telomere binding protein, Cdc13p, was analyzed. The role of several proteins including yeast Ku protein, Gbp2p, Rlr1p, and Imp4p in mediating telomere length maintenance are also our research interests. Since telomerase activity is implicated as an essential step for tumor formation in human, my laboratory is also interested in identifying agents that inhibit telomerase activity. Moreover, we are also interested in analyzing the genes that are involved in senescence. Among them, we are currently focused on determining the role of the pituitary tumor transforming gene (PTTG1) in senescence.

In addition to telomere-related researches, we are also interested in applying chemical approach to address biological questions. A series of mechanism-based chemical probes for labeling selected protein families including protein tyrosine phosphatases, protein kinases, and serine proteases were designed and synthesized. We are interested in developing these chemical probes as technical platforms for biological analysis.

Publications * corresponding author

Selected publications (Original article, ; Review,)

1. Chen, Y.-C., Huang, F.-C., and Lin, J.-J.*: The addition of a spin-column step in the telomeric repeat application protocol removes telomerase inhibitors. *Anal. Biochem.*, 478: 49-51, 2015.
2. Kuo, M. H.-J., Wang, Z.-F., Tseng, T.-Y., Li, M.-H., Hsu, S.-T. D., Lin, J.-J.* , Chang, T.-C.*: The conformational transition of a hairpin structure to G-quadruplex within the WNT1 gene promoter. *J. Am. Chem. Soc.*, 137: 210-218, 2015.
3. Li, J.-R., Yu, T.-Y., Chien, I.-C., Lu, C.-Y., Lin, J.-J.* , Li, H.-W.*: Pif1 regulates telomere length by preferentially removing telomerase from long telomere ends. *Nucleic. Acids Res.* 42: 8527-8536, 2014.
4. Wang, A.-M., Huang, T.-T., Hsu, K.-W., Huang, K.-H., Yang, M.-H., Lo, S.-S., Chi, C.-W., Lin, J.-J.* , Yeh, T.-S.*: Yin Yang 1 is a target of microRNA-34 family and contributes to gastric carcinogenesis. *Oncotarget*, 5: 5002-5016, 2014.

5. Wang JM, Huang FC, Kuo MH, Wang ZF, Tseng TY, Chang LC, Yen SJ, Chang TC, Lin, J.-J.*:Inhibition of cancer cell migration and invasion through suppressing the Wnt1-mediating