

Kuo-I Lin, Ph.D.

EDUCATION & CAREER EXPERIENCE

B.S. Department of Medical Technology, National Taiwan University, Taipei, Taiwan, 1987-1991

M.S. Institute of Medical Technology, National Taiwan University, Taipei, Taiwan, 1991-1993

Ph.D. Department of Molecular Microbiology and Immunology, The Johns Hopkins University, Baltimore, MD, 1993-1998

Post-Doctoral Scientist, Department of Microbiology, Columbia University, New York, NY 1998-2003

Associate Research Scientist, Department of Microbiology, Columbia University, New York, NY 2003-2004

Assistant Research Fellow, Genomics Research Center, Academia Sinica, Taiwan 2004-2009

Associate Research Fellow, Genomics Research Center, Academia Sinica, Taiwan 2009-present

Adjunct Associate Professor, Institute of Immunology, National Taiwan University 2010-present

HONORS

Betty Lee Hampil Honorary Fellowship, Dept. of Molecular Microbiology & Immunology. The Johns Hopkins University, 1995

Phi Beta Kappa, The Johns Hopkins University, 1999

The Leukemia and Lymphoma Society Fellowship, 1999-2002

Li Foundation Heritage Prize, 2005

1st ASAIHL-Scopus Young Scientist Award, 2008

Academia Sinica Career Development Award, 2010

PUBLICATIONS

1. Lin, S. B., Chang, G. W., The, G.-W., **Lin, K.-I**, and Au, L.-C. (1993). A simple and rapid method for purification of oligodeoxyribonucleoside methylphosphonates. *Biotechniques*. 14, 795-98.
2. **Lin, K.-I**, Lee, S.-H., Narayanan, R., Baraban, J. M., Hardwick, J. M., and Ratan, R. R. (1995) Thiol agents and Bcl-2 identify an alphavirus-induced apoptotic pathway that requires activation of the transcription factor NF-kappa B. *J. Cell Biol.* 131, 1149-61.
3. Irani, D. N., **Lin, K.-I**, and Griffin, D. E. (1996) Brain-derived gangliosides regulates the cytokine production and proliferation of activated T cells. *J. Immunol.* 157, 4333-40.
4. Irani, D. N., **Lin, K.-I**, and Griffin, D. E. (1997) Regulation of brain-derived T cells during acute central nervous system inflammation. *J. Immunol.* 158, 2318-26.
5. Esch, F., **Lin, K.-I**, Hills, A., Zaman, K., Chatterjee, S., Rubin, L., Ash, D. E., and Ratan, R. R. (1998) Purification of a multipotent antideath activity from bovine liver and its identification as arginase : nitric oxide-independent inhibition of neuronal apoptosis. *J. Neurosci.* 18, 4083-95.
6. **Lin, K.-I**, DiDonato, J. A. Hoffmann, A., Hardwick, J. M., and Ratan, R. R. (1998) Suppression of steady-state, but not stimulus-induced NF-kappa B activity inhibits alphavirus-induced apoptosis. *J. Cell Biol.* 141, 1479-87.
7. **Lin, K.-I**, Baraban, J. M., and Ratan, R. R. (1998) Inhibition versus induction of apoptosis by proteasome inhibitors depends on concentration. *Cell Death and Differentiation.* 5, 577-83.
8. **Lin, K.-I**, Chattopadhyay, N., Bei, M., Alvarez, R., Dang, C. V., Baraban, J. M., Brown, E. M., and Ratan, R. R. (1998) Elevated extracellular calcium can prevent apoptosis via the calcium-sensing receptor. *Biochem. Biophys. Res. Commun.* 249, 325-31.

9. **Lin, K.-I**, Pulsinelli P. Brown, R. H., Hardwick, J. M. and Ratan, R. R. (1999) Decreased intracellular superoxide levels activate Sindbis virus-induced apoptosis: a role for reductive stress in modulating cell death. *J. Biol. Chem.* 274, 13650-5.
10. Zaman K., Ryu, H., Hall, D., O'Donovan, K., **Lin, K.-I**, Miller, M.P., Marquis, J.C., Baraban, J.M., Semenza, G.L. and Ratan, R.R. (1999) Protection from oxidative stress-induced apoptosis in cortical neuronal cultures by iron chelators is associated with enhanced DNA binding of hypoxia-inducible factor-1 and ATF-1/CREB and increased expression of glycolytic enzymes, p21waf1/cip1, and erythropoietin. *J. Neurosci.* 19, 9821-30.
11. Angelin-Duclos, C., Cattoretti, G., Chang, D.H., **Lin, K.-I**, Lin, Y., Yu, J. and Calame K. (1999) The role of B lymphocyte induced maturation protein-1 (BLIMP-1) in terminal differentiation of B cells and other cell lineages. *Cold Spring Harb Symp Quant Biol* 64:61-70.
12. Piskurich, J. F.[#], **Lin, K.-I**[#], Lin, Y., Wang, Y., Ting, J. P.-Y. and Calame K. (2000) BLIMP-1 mediates extinction of major histocompatibility class II transactivator expression in plasma cells. *Nature Immunology*. 1: 526-32. ^{#co-first authors}
13. Angelin-Duclos, C., Cattoretti, G., **Lin, K.-I**, and Calame K. (2000) Commitment of B lymphocytes to a plasma cell fate is associated with Blimp-1 expression in vivo. *J Immunol.* 165: 5462-71.
14. **Lin, K.-I**, Lin, Y. and Calame K. (2000) Repression of c-myc is necessary but not sufficient for terminal differentiation of B lymphocytes in vitro. *Mol Cell Biol.* 20: 8684-95.
15. **Lin, K.-I**, Angelin-Duclos, C., Kuo, T.C. and Calame K. (2002) Blimp-1-dependent repression of *Pax-5* is required for differentiation of B cells to IgM secreting plasma cells. *Mol Cell Biol.* 22: 4771-80.
16. Shaffer, A.L. [#], **Lin, K.-I**[#], Kuo T. C., Yu, X., Hurt, E.M., Rosenwald, A., Giltnane, J.M., Yang, L., Zhao, H., Calame K. and Staudt, L.M. (2002) Blimp-1 orchestrates plasma cell differentiation by extinguishing the mature B cell gene expression program. *Immunity.* 17: 51-62. ^{#co-first authors}
17. Angelin-Duclos, C., Johnson, K., Liao, J., **Lin, K.-I** and Calame K. (2002) An interfering form of Blimp-1 increases IgM secreting plasma cells and blocks maturation of peripheral B cells. *Eur. J. of Immunol.* 32: 3765-75.
18. Calame, K., **Lin, K.-I** and Tunyaplin, C. (2003). Regulatory mechanisms that determine the development and function of plasma cells. *Annu Rev Immunol.* 21, 205-30.
19. **Lin, K.-I**, Tunyaplin, C. and Calame, K. (2003) Transcriptional regulatory cascades controlling plasma cell differentiation. *Immunological Review.* 194, 19-28.
20. Shapiro-Shelef, M., **Lin, K.-I**, McHeyzer-Williams, L.J., Liao, J., McHeyzer-Williams, M.G. and Calame, K. (2003) Blimp-1 is required for the formation of immunoglobulin secreting plasma cells and pre-plasma memory B cells. *Immunity.* 19, 607-620.
21. **Lin, K.-I** and Calame, K. (2004) Introduction of genes into primary murine splenic B cells using retrovirus vectors. *Methods Mol Biol.* 271:139-48.
22. Johnson, K., Pflugh, D.L., Yu, D., Hesslein, D.G.T., **Lin, K.-I**, Bothwell, A.L., Thomas- Tikhonenko, A., Schatz, D.G. and Calame K. (2004) B-cell specific loss of histone 3 Lysine 9 methylation in the V_H locus depends on Pax5. *Nature Immunology*, 5: 853-61.
23. Shapiro-Shelef, M., **Lin, K.-I**, Savitsky, D., Liao, J. and Calame, K. (2005) Blimp-1 is required for maintenance of long-lived plasma cells in the bone marrow. *J. Exp. Med.* 202:1471-1476.
24. **Lin, K.-I**^{*}, Kao, Y.-Y., Kuo, H.-K., Yang, W.-B., Chou, A., Lin, H.-H., Yu, A.L. and Wong, C.-H. (2006) Reishi polysaccharides induce immunoglobulin production through the TLR4/TLR2-mediated induction of transcription factor blimp-1. *J. Biol. Chem.* 281:24111-23. ^{*corresponding author}
25. Lin, F.-R., Kuo, H.-K., Ying, H.-Y., Yang, F.-H. and **Lin, K.-I**^{*} (2007) Induction of apoptosis in plasma cells by Blimp-1 knockdown. *Cancer Research.* 67: 11914-23. ^{*corresponding author}
26. Tsai, C.-M., Chiu, Y.-K., Hsu, T.-L., Lin, I.-Y., Hsieh, S.-L. and **Lin, K.-I**^{*} (2008) Galectin-1 promotes immunoglobulin production during plasma cell differentiation. *J. Immunol.* 181: 4570-4579. ^{*corresponding author}

27. Su, S.-T., Ying, H.-Y., Chiu, Y.-K., Lin, F.-R., Chen, M.-Y. and **Lin, K.-I*** (2009) Involvement of LSD1 in Blimp-1-mediated gene repression during plasma cell differentiation. *Mol Cell Biol.* 29: 1421-1431. ***corresponding author**
28. Chan, Y.-H., Chiang, M.-F., Tsai, Y.-C., Su, S.-T., Chen, M.-H., Hou, M.-S., and **Lin, K.-I*** (2009) Absence of the transcriptional repressor Blimp-1 in hematopoietic lineages reveals its role in the conventional dendritic cell homeostatic development and function. **(Featured)** *J. Immunol.* 183: 7039-7046. ***corresponding author**
29. Tsai, C.-M., Guan, C.-H., Hsieh, H.-W, Hsu, T.-L., Tu, Z., Wu, K.-J., Lin, C.-H. and **Lin, K.-I*** (2011) Galectin-1 and galectin-8 have redundant roles in promoting plasma cell formation. *J. Immunol.* 187: 1643-1652. ***corresponding author**

PATENTS

1. Wong, C.-H., Hsu, H.-Y., Hua, K.-F., Lin, C.-H., Hsu, J., Chen, S.-T., **Lin, K.-I**, Yang, W.-B., Yu, J. and Yu, A.L. Methods and compositions associated with administration of an extract of *Ganoderma lucidum*. PCT Patent No. PCT/US2005/036961 (2005); TW Patent No. 095131055 (2005).
2. Yu, A.L., Yu, J., **Lin, K.-I**, Yang, W.-B. and Wong, C.-H. Fungal immunostimulatory compositions. US Patent No. 11, 549, 215 (2006); TW Patent No. 095137640 (2006).