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## CURRICULUM VITAE

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NAME <b>Kuo-I Lin</b>	POSITION TITLE <b>Research Fellow</b>
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EDUCATION/TRAINING			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Columbia University, New York, NY, US The Johns Hopkins University, Baltimore,	Post-doc. Ph.D.	2004 1998	Immunology Molecular and Immunology
National Taiwan University, Taipei, Taiwan National Taiwan University, Taipei, Taiwan	M.S. B.S.	1993 1991	Medical Technology Medical Technology

### A. POSITIONS AND HONORS

#### Positions and Employment

- 2014 Sep.- Research Fellow, Genomics Research Center, Academia Sinica, Taipei, Taiwan  
2010- Adjunct Associate Professor, Institute of Immunology, National Taiwan University, Taipei, Taiwan  
2009-2014 Associate Research Fellow (with tenure), Genomics Research Center, Academia Sinica, Taipei, Taiwan  
2004-2009 Assistant Research Fellow, Genomics Research Center, Academia Sinica, Taipei, Taiwan

#### Honors

- 2014 Outstanding Research Award, The Chinese Society of Immunology, Taiwan, 2014  
2014 Young Scientist Research Award, Tien-Te Lee Biomedical Foundation, Taiwan, 2014  
2013 Outstanding Research Award, National Science Council, Taiwan, 2013  
2010 Academia Sinica Career Development Award  
2008 1<sup>st</sup> ASAIHL-Scopus Young Scientist Award (Winner of Life Sciences)  
2005 Li Foundation Heritage Prize  
1999-2002 The Leukemia and Lymphoma Society Fellowship  
1999 Phi Beta Kappa, The Johns Hopkins University  
1995 Betty Lee Hampil Honorary Fellowship, Dept. of Molecular Microbiology & Immunology, The Johns Hopkins University  
1987-1991 National Taiwan University Presidential Award (top 5% student)

### B. PEER-REVIEWED PUBLICATIONS (in reverse chronological order)

1. Tsai, C.-M. and **Lin, K.-I\*** (2015) Examination of the role of galectins in plasma cell differentiation. *Methods Mol Biol.* 1207:153-167. **\*corresponding author**
2. Kretzschmar, K., Cottle, D.L., Donati, G, Chiang, M.-F., Quist, S.R., Gollnick, H.P., Natsuga, K., Aoyagi, S., **Lin, K.-I**, and Watt, F. M. (2014) BLIMP1 does not define a sebaceous gland

progenitor population but is required for epidermal homeostasis. *Stem Cell Reports* 3: 620-633. *(Cover story)*

3. Chiu, Y.-K., Lin, I.-Y., Su, S.-T., Wang, K.-H., Yang, S.-Y., Tsai, D.-Y., Hsieh, Y.-T., and **Lin, K.-I\***. (2014) Transcription factor ABF-1 suppresses plasma cell differentiation but facilitates memory B cell formation. *Journal of Immunology* 193: 2207-2217 **\*corresponding author**
4. Tsai, C.-M. Wu, H.-Y., Su, T.-H., Kuo, C.-W., Huang, H.-W., Chung, C.-H., Chen, C.-S., Khoo, K.-H., Chen, Y.-J.\* and **Lin, K.-I\*** (2014) Phosphoproteomic analyses reveal that galectin-1 augments the dynamics of B-cell receptor signaling. *Journal of Proteomics* 103: 241-253. **\*corresponding author**
5. Huang, K.-Y.; Wu, H.-Y.; Chen, Y.-J.; Lu, C.-T.; Su, M.-G.; Hsieh, Y.-C.; Tsai, C.-M.; **Lin, K.-I.**; Huang, H.-D.; Lee, T.-Y.\* and Chen, Y.-J.\* (2014) RegPhos 2.0: an update resource to explore protein kinase-substrate phosphorylation networks in mammals. *Database (Oxford)* 25; 2014(0):bau034
6. Lin, I.-Y., Chiu, F.-L., Yeang, C.-H., Chen, H.-F., Chuang, C.-Y., Yang, S.-Y., Hou, P.-S., Sintupisut, N., Ho, H.-N., Kuo, H.-C.\*, and **Lin, K.-I\*** (2014) Suppression of the SOX2 neural effector gene by PRDM1 promotes human germ cell fate in embryonic stem cells. *Stem Cell Reports*. 2: 189-204. **\*corresponding author**
7. Lin, M.-H., Yeh, L.-T., Chen, S.-J., Chiou, H.-Y., Chu, C.-C., Yen, L. B., **Lin, K.-I**, Chang, D.-M., and Sytwu, H.-K. (2014) T cell-specific BLIMP-1 deficiency exacerbates experimental autoimmune encephalomyelitis in nonobese diabetic mice by increasing Th1 and Th17 cells. *Clinical Immunology*. 151: 101-113.
8. Chen, J.-R., Yu, Y.-H., Tseng, Y.-C., Chiang, W.-L., Chiang, M.-F., Ko, Y.-A., Chiu, Y.-K., Ma, S.-H., Wu, C.-Y., Jan, J.-T., **Lin, K.-I\***, Ma, C.\*, and Wong, C.-H\*. (2014) Vaccination of monoglycosylated hemagglutinin induces cross-strain protection against Influenza virus infections. *Proc Natl Acad Sci USA*. 111: 2476-2481. **\*corresponding author (Highlighted by PNAS)**
9. Liao, S.-F, Liang, C.-H., Ho, M.-Y., Hsu, T.-L., Tsai, T.-I, Hsieh, Y. S.-Y., Tsai, C.-M., Li, S.-T., Cheng, Y.-Y., Tsao, S.-M., Lin, T.-Y., Lin, Z.-Y. , Yang, W.-B., Ren, C.-T., **Lin, K.-I**, Khoo, K.-H., Lin, C.-H., Hsu, H.-Y., Wu, C.-Y., and Wong, C.-H. (2013) Immunization of fucose-containing polysaccharides from Reishi mushroom induces antibodies to tumor-associated Globo H-series epitopes. *Proc Natl Acad Sci USA*. 110(34): 13809-13814. *(Highlighted by PNAS)*
10. Huang, H.-W., Chen, C.-H., Lin, C.-H., Wong, C.-H.\*, and **Lin, K.-I\***. (2013) B cell maturation antigen is modified by a single N-glycan chain that modulates ligand binding and surface retention. *Proc Natl Acad Sci USA* 110 (27): 10928-10933 **\*corresponding author**
11. Tu, Z., Hsieh, H.-W., Tsai, C.-M., Hsu, C.-W., Wang, S.-G., Wu, K.-J., **Lin, K.-I\***, and Lin, C.-H\*. (2013) Synthesis and characterization of sulfated Gal- $\beta$ -1,3/4-GlcNAc disaccharides via consecutive Protection/glycosylation Steps. *Chemistry-An Asian Journal* 8 (7): 1536-1550 **\*corresponding author**
12. Wang, S.-H., Tsai, C.-M., **Lin, K.-I\*** and Khoo, K.-H.\* (2013) Advanced mass spectrometry and chemical analyses reveal the presence of terminal disialyl motif on mouse B cells. *Glycobiology*. 23: 677-689. **\*corresponding author**
13. Chiang, M.-F., Yang, S.-Y., Lin, I.-Y., Hong, J.-B., Lin, S.-J., Ying, H.-Y., Chen, C.-M., Wu, S.-Y., Liu, F.-T., and **Lin, K.-I\*** (2013) Inducible deletion of Blimp-1 gene in adult epidermis causes granulocyte-dominated chronic skin inflammation in mice. *Proc Natl Acad Sci USA* 110 (16): 6476-6481 **\*corresponding author (Highlighted by Nature Reviews Immunology and Nature Immunology)**
14. Lin, M.-H., Chou, F.-F., Yeh, L.-T., Fu, S.-H., Chiou, H.-Y., **Lin, K.-I**, Chang, D.-M. and Sytwu H.-K. (2013) B lymphocyte-induced maturation protein 1 (BLIMP-1) attenuates autoimmune diabetes in NOD mice by suppressing Th1 and Th17 cells. *Diabetologia* 56: 136-146.
15. Lin, F.-R., Huang, S.-Y., Hong, K.-H., Su, S.-T., Chung, C.-H., Matsuzawa, A., Hsiao, M., Ichijo,

- H. and **Lin, K.-I\*** (2012) ASK1 promotes apoptosis of normal and malignant plasma cells. *Blood* 120: 1039-1047. **\*corresponding author**
16. Ying, H.-Y., Su, S.-T., Hsu, P.-H., Chang, C.-C., Lin, I.-Y., Tseng, Y.-H., Tsai, M.-D., Shih, H.-M. and **Lin, K.-I\*** (2012) SUMOylation of Blimp-1 is critical for plasma cell differentiation. *EMBO Reports*. 13: 631-637. **\*corresponding author** (*Cover story and highlighted by A-IMBN*)
  17. Chuang, C.-Y., **Lin, K.-I**, Hsiao, M., Stone, L., Chen, H.-F., Huang, Y.-H., Lin, S.-P., Ho, H.-N., and Kuo, H.-C. (2012) Meiotic competent human germ cell-like cells derived from human embryonic stem cells induced by BMP4/WNT3A signaling and OCT4/EpCAM selection. *Journal of Biological Chemistry*. 287: 14389-14401
  18. Wu, Y.-H., Yang, C.-Y., Chien, W.-L., **Lin, K.-I** and Lai, M.-Z. (2012) Removal of Syndecan-1 promotes TRAIL-induced apoptosis in myeloma cells. *J. Immunol*. 188: 2914-2921
  19. Hsu, Y, Lu, X.-A.; Zulueta, M., Tsai, C.-M., **Lin, K.-I**, Hung, S.-C. and Wong, C.-H. (2012) Acyl and Silyl group effects in reactivity-based one-pot glycosylation: synthesis of embryonic stem cell surface carbohydrates Lc4 and IV2Fuc-Lc4. *Journal of the American Chemical Society*. 134: 4549-4552.
  20. 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**
  21. 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. *J. Immunol*. 183: 7039-7046. **\*corresponding author** (*Highlighted by Journal of Immunology*)
  22. 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**
  23. 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** (*Highlighted by Consortium for Functional Glycomics*)
  24. 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: 11914-11923. **\*corresponding author**
  25. **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: 24111-24123. **\*corresponding author**
  26. 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
  27. 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<sub>H</sub> locus depends on Pax5. *Nature Immunology*. 5: 853-861.
  28. **Lin, K.-I** and Calame, K. (2004) Introduction of genes into primary murine splenic B cells using retrovirus vectors. *Methods Mol Biol*. 271: 139-148.
  29. 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.
  30. **Lin, K.-I**, Tunyaplin, C. and Calame, K. (2003) Transcriptional regulatory cascades controlling plasma cell differentiation. *Immunological Review*. 194, 19-28.
  31. Calame, K., **Lin, K.-I** and Tunyaplin, C. (2003). Regulatory mechanisms that determine the development and function of plasma cells. *Annu Rev Immunol*. 21: 205-230.
  32. 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: 3765-3775.
33. Shaffer, A.L. <sup>#</sup>, Lin, K.-I<sup>#</sup>, 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. <sup>#co-first authors</sup>
  34. 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: 4771-4780.
  35. 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: 8684-8695.
  36. 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: 5462-5471.
  37. Piskurich, J. F.<sup>#</sup>, Lin, K.-I<sup>#</sup>, 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: 526-532. <sup>#co-first authors</sup>
  38. 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.
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  41. 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: 325-331.
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  43. 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: 1479-1487.
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  45. 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: 2318-2326.
  46. 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: 4333-4340.
  47. 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: 1149-1161.
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## **C. 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), TW No. I 386220 (2013)