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## CURRICULUM VITAE

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NAME	POSITION TITLE
 <b>Kuo-I Lin</b>	<b>Research Fellow and Professor</b> Genomics Research Center, Academia Sinica Taipei, Taiwan Office: +886-2-2787-1253 Email: kuoilin@gate.sinica.edu.tw

### EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Columbia University, New York, NY, US	Post-doc.	2004	Immunology
The Johns Hopkins University, Baltimore, MD, US	Ph.D.	1998	Molecular Microbiology and Immunology
National Taiwan University, Taipei, Taiwan	M.S.	1993	Medical Technology
National Taiwan University, Taipei, Taiwan	B.S.	1991	Medical Technology

### A. POSITIONS AND HONORS

#### Positions and Employment

- 2014 Dec.- Division Director of Medical Biology, Genomics Research Center, Academia Sinica, Taipei, Taiwan
- 2014 Sep.- Research Fellow, Genomics Research Center, Academia Sinica, 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
- 2019- Adjunct Research Fellow, Biomedical Translational Research Center, Academia Sinica, Taipei, Taiwan
- 2017- Joint Professor, Institute of New Drug Development, China Medical University, Taichung, Taiwan
- 2016- Adjunct Professor, Graduate Institute of Immunology, National Taiwan University, Taipei, Taiwan
- 2010-2016 Adjunct Associate Professor, Graduate Institute of Immunology, National Taiwan University, Taipei, Taiwan

#### Honors

- 2012, 2013, 2016 & 2019 Academia Sinica Significant Research Publications
- 2019 Outstanding Research Achievement to National Health, Ming-Ning Wang Memorial Foundation
- 2018 Academia Sinica Investigator Award

- 2016 Outstanding Research Award, Ministry of Science and Technology (MOST), Taiwan
- 2015 Chair in Biotechnology, Taiwan Bio-Development Foundation
- 2014 Outstanding Research Award, The Chinese Society of Immunology, Taiwan
- 2014 Young Scientist Research Award, Tien-Te Lee Biomedical Foundation, Taiwan
- 2013 Outstanding Research Award, National Science Council (MOST), Taiwan
- 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)

### **Invited Talks (2014-2022)**

#### 2022

1. Mechanisms underlying B cell differentiation and antibody effector functions. Special seminar for celebrating thirty-fifth anniversary, Chang Gung University, TaoYuan, Taiwan. (Scheduled on 04/15/2022)

#### 2021

1. Mechanisms underlying the regulation of differentiation and effector functions of B cells, Mu-Shan Seminar, Taipei Medical University, Taipei, Taiwan. 05/06/2021

#### 2020

1. Factors regulating B cell development and function, National Taiwan University, Taipei, Taiwan. 03/20/2020
2. Signaling and molecular pathways contributing to B-cell chronic lymphocytic leukemia progression and the survival of multiple myeloma. Keystone symposia E3 (canceled due to COVID-19).
3. Molecular mechanisms underlying B cell activation and differentiation, The Taiwan Society for Biochemistry and Molecular Biology Autumn Camp, Tainan, Taiwan. 10/31/2020

#### 2019

1. O-GlcNAcylation in B cell immunity, GRC & Hanoi Medical University Bilateral Workshop, Taipei, Taiwan. 06/12/2019
2. Uncovering pathogenic mechanisms of inflammatory diseases, GRC, AS & Osaka University Bilateral Symposium, Taipei, Taiwan. 10/08/2019
3. Factors regulating B cell development and function, National Cheng Kung University, Tainan, Taiwan. 10/14/2019
4. Molecular mechanisms underlying B cell activation and differentiation, 2019 International Symposium of Korean Autoimmunity, Seoul, Korea. 12/21/2019 *Keynote Speaker*.

#### 2018

1. The sweet side of B cells, Academia Sinica & UC Davis Bilateral Joint Symposium, Davis, USA. 01/23/2018
2. O-GlcNAcylation in B cell immunity, The 33<sup>rd</sup> Joint Annual Conference of Biomedical Science, Taipei, Taiwan. 03/24/2018
3. O-GlcNAcylation in B cell immunity, Immunology 2018, American Association for Immunologists (AAI) Annual Meeting, Austin, USA. 05/06/2018, *Invited Speaker and [Session Chair](#)*.
4. O-GlcNAcylation in B cell immunity, 24<sup>th</sup> IUBMB Congress, Seoul, South Korea. 06/08/2018, *Invited Speaker and [Session Chair](#)*.

5. O-GlcNAcylation in B cell immunity, The 4<sup>th</sup> Cross-strait Life Sciences Forum, Taipei, Taiwan. 08/27/2018
6. B cell activation and differentiation in autoimmune disease: *Factors that Regulate the Generation and Maintenance of Plasma Cells*. APLAR: Asia Pacific League of Associations for Rheumatology Congress Conference. Koahsiung, Taiwan. 09/05/2018

#### 2017

1. Factors regulating inflammation and B cell responses, China Medical University, Taichung, Taiwan. 03/03/2017
2. Regulation of B cell activation and differentiation by post-translational modifications, Cross-straits Immunology Forum, Taipei, Taiwan. 03/18/2017
3. Factors regulating B cell responses, National Taiwan University, Taipei, Taiwan. 03/23/2017
4. The impact of glycans on B cell activation and differentiation, RIKEN -Academia Sinica Joint Conference: Focus on Chemistry and Chemical Biology, Wako, Japan. 03/29/2017
5. Galectins and O-GlcNAcylation in B cell activation and differentiation, The American Association of Immunologists Annual Meeting, Washington, USA. 05/16/2017
6. The sweet side of B cells, Glycoscience Forum, Academia Sinica, Taipei, Taiwan. 07/06/2017
7. Essential roles of O-GlcNAcylation in B cell activation, Glyco 24, the 24<sup>th</sup> International Symposium on Glycoconjugates (IGO), JeJu island, Korea. 08/28/2017.
8. Regulatory mechanisms of Blimp-1 in cellular differentiation, International Conference of Developmental Biology, Stem Cells and Regenerative Medicine, Taipei, Taiwan. 09/15/2017
9. The roles of galectins in normal and malignant B cells, IUBMB, Taipei, Taiwan. 12/04/2017

#### 2016

1. Regulatory mechanisms of B cell differentiation, National Taiwan University, Taipei, Taiwan. 03/15/2016
2. Regulating inflammation and B cell immunity, UMMS-Academia Sinica-NHRI Joint Symposium, Taipei, Taiwan. 06/27/2016
3. Regulatory mechanisms in B cell activation and plasma cell formation, The 6<sup>th</sup> International Conference on B cells and Autoimmunity, Taichung, Taiwan. 08/17/2016
4. Regulating inflammation and B cell immunity, Bilateral symposium of AS GRC and Osaka University. Osaka, Japan. 10/06/2016
5. Regulation of B cell activation and differentiation by post-translational modifications, Cross-straits Life Sciences Forum, Shanghai, China. 11/08/2016

#### 2015

1. Vaccination with monoglycosylated hemagglutinin induced cross-strain immunity against influenza virus infections, Gordon Research Conference: Glycobiology, Lucca (Barga), Italy. 03/05/2015
2. Regulating inflammation and B cell immunity, Development Center for Biotechnology, Taipei, Taiwan. 07/23/2015
3. The impact of glycans on B cell immunity, RIKEN-Academia Sinica Joint Conference on Chemical Biology, Academia Sinica, Taipei, Taiwan. 10/16/2015
4. The Roles of Blimp-1 in Skin Inflammation and B Cell Immunity, The 11<sup>st</sup> Annual Meeting of Taiwanese Society for Investigative Dermatology, Taipei, Taiwan. 11/21/2015

#### 2014

1. Modulation of B cell Responses by Galectins and O-GlcNAcylation, Glycoretreat, Taiwan. 04/24/2014
2. Regulating inflammation and B cell immunity, Cross-strait Immunology Conference, Taipei, Taiwan. 04/28/2014
3. Regulating B cell immunity and inflammation, Mu-Shan Seminar, Taipei Medical University, Taipei, Taiwan. 06/12/2014
4. Regulating inflammation and B cell immunity, National Cheng Kung University, Tainan, Taiwan.

09/25/2014

5. PRDM1 (Blimp-1) controls human germ cell fate choice. Taiwan Society for Stem Cell Research, Taipei, Taiwan. 10/04/2014
6. Regulating Skin Inflammation and B Cell Immunity by Blimp-1, NHRI/IBMS Joint International Conference on Inflammation & Disease, Academia Sinica, Taipei, Taiwan. 10/17/2014
7. Modulation of B Cell Responses by Galectins, The 1<sup>st</sup> Glycoimmunology Meeting, Taipei, Taiwan. 12/04/2014

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

ORCID 0000-0003-4477-0798

### PUBLICATIONS

1. Wu, J.-L., Wu, H.-Y., Wu, S.-J., Tsai, H.-Y., Weng, S.-H., Lin, K.-T., Lin, L.-I., Yao, C.-Y., Zamanova, M., Lee, Y.-Y., Angata, T., Tien, H.-F., Chen, Y.-J.\* and **Lin, K.-I**\* (2022) Phosphoproteomics reveals the role of constitutive KAP1 phosphorylation by B-cell receptor signaling in chronic lymphocytic leukemia. *Molecular Cancer Research*. (accepted) **\*corresponding author**
2. Huang, H.-Y., Liao, H.-Y., Chen, X., Wang, S.-W., Cheng, C.-W., Shahed-Al-Mahmud, M. Chen, T.-H., Lo, J. M., Liu, Y.-M., Wu, Y.-M., Ma, H.-H., Chang, Y.-H., Tsai, H.-Y., Chou, Y.-C., Hsieh, Y.-P., Tsai, C.-Y., Huang, P.-Y., Chang, S.-Y., Chao, T.-L., Kao, H.-C., Tsai, Y.-M., Chen, Y.-H., Wu, C.-Y., Jan, J.-T., Cheng, T.-J. R., **Lin, K.-I**\*, Ma, C\* and Wong, C.-H.\* (2022) Vaccination with SARS-CoV-2 spike protein lacking glycan shields elicits enhanced protective responses in animal models. *Science Translational Medicine*. (Mar. 1, online ahead of print) **\*corresponding author**
3. Gebreyesus, S. T., Siyal, A. A., Kitata, R. B., Chen, S.-W., Enkhbayar, B., Angata, T., **Lin, K.-I**, Chen, Y.-J. and Tu., S.-L. (2022) Streamlined single-cell proteomics by an integrated microfluidic chip and data-independent acquisition mass spectrometry. *Nature Communications*. 13(1):37.
4. Hsieh, W.-C., Lai, E.-Y., Liu, Y.-T., Wang, Y.-F., Tzeng, Y.-S., Cui, L, Lai, Y.-J., Huang, H.-C., Huang, J.-H., Ni, H.-C., Tsai, D.-Y., Liang, J.-J., Liao, C.-C., Jiang, L, Liu, M.-T., Wang, J.-T., Chang, S.-Y., Chen, C.-Y., Tsai, H.-C., Chang, Y.-M., Wernig, G., Li, C.-W., **Lin, K.-I**, Lin, Y.-L., Tsai, H.-K., Huang, Y.-T. and Chen, S.-Y. (2021) Natural killer receptor and ligand composition influences the clearance of SARS-CoV-2. *Journal of Clinical Investigation*. 131 (21): e146408.
5. Ko, Y.-A., Yu, Y.-H., Wu, Y.-F., Tseng, Y.-C., Chen, C.-L., Goh, K.-S, Liao, H.-Y., Chen, T.-H., Cheng, R. T.-J., Yang, A.-S., Wong, C.-H., Ma, C. and **Lin, K.-I**\* (2021) A non-neutralizing antibody broadly protects against influenza virus infection by engaging effector cells. *PLOS Pathogens*. 17(8): e1009724. **\*corresponding author**
6. Lo, L.-W., Chang, C.-W., Chiang, M.-F., Lin, I.-Y., and **Lin, K.-I**\* (2021) Marginal zone B cells assist with neutrophil accumulation to fight against systemic *Staphylococcus aureus* infection. *Frontiers in Immunology*. 12:636818. doi: 10.3389/fimmu.2021.636818. **\*corresponding author**
7. Lee, W., Wang, L.-T., Yen, M.-L., Hsu, P.-J., Lee, Y.-W., Liu, K.-J., **Lin, K.-I**, Su, Y.-W., Sytwu, H.-K., and Yen, B. L. (2021) Resident vs. nonresident multipotent mesenchymal stromal cell interactions with B lymphocytes result in disparate outcomes. *Stem Cells Transl Med*. 10(5):711-724
8. Liao, H.-Y., Wang, S.-C., Ko, Y.-A. **Lin, K.-I**, Ma, C., Cheng, R. T.-J., and Wong, C.-H. (2020) Chimeric hemagglutinin vaccine elicits broadly protective CD4 and CD8 T cell responses against multiple influenza strains and subtypes. *Proc Natl Acad Sci USA*. 117(30):17757-17763.
9. Chang, Y.-H., Weng, C.-L, and **Lin, K.-I**\* (2020) O-GlcNAcylation and its role in the immune system. *J Biomed Sci*. 27(1):57. **\*corresponding author**

10. Chen, H.-Y., Wu, Y.-F., Chou, F.-C., Wu, Y.-H., Yeh, L.-T., **Lin, K.-I.** Liu, F.-T., Sytwu, H.-K. (2020) Intracellular galectin-9 enhances proximal TCR signaling and potentiates autoimmune disease. *Journal of Immunology*. 204(5):1158-1172.
11. Liu, C.-H., Chou, C.-T., Chen, C.-H., Chen, C.-H., Yang, S.-Y., Ko, Y.-A., Wu, Y.-T., Wang, C.-C., Liu, F.-C., Yue, C.-T., Hung, S.-C., Tzeng, I.-S., Tsai, W.-C. \*, and **Lin, K.-I.\*** (2020) Aberrant distribution and function of plasmacytoid dendritic cells in patients with ankylosing spondylitis are associated with unfolded protein response. *Kaohsiung Journal of Medical Sciences*. DOI: 10.1002/kjm2.12184. **\*corresponding author**
12. Liu, C.-H., Raj, S, Chen, C.-H., Hung, K.-H., Chou, C.-T., Chen, I.-Ho., Chien, J.-T., Lin, I.-Y., Yang, S.-Y., Angata, T., Tsai, W.-C., Wei, J. C.-C., Tzeng, I.-S., Hung, S.-C.\*, and **Lin, K.-I.\*** (2019) HLA-B27-mediated activation of TNAP phosphatase promotes pathogenic syndesmophyte formation in ankylosing spondylitis. *Journal of Clinical Investigation*. 129 (12): 5357-5373. **\*corresponding author** ([Highlighted by Nature Reviews Rheumatology, Academia Sinica Significant Research Publication](#))
13. Tsai, D.-Y., Hung, K.-H., Chang, C.-W., and **Lin, K.-I.\*** (2019). Regulatory Mechanisms of B cell responses and the implication in B cell-related diseases. *J Biomed Sci*. 26(1): 64. **\*corresponding author**
14. Wang, Y.-H., Tsai, D.-Y., Ko, Y.-A., Yang, T.-T., Lin, I.-Y., Hung, K.-H., and **Lin, K.-I.\*** (2019) Blimp-1 contributes to the development and function of regulatory B cells. *Frontiers in Immunology* 10:1909. doi: 10.3389/fimmu.2019.01909. **\*corresponding author**
15. Tseng, Y.-C., Wu, C.-Y., Liu, M.-L., Chen, T.-H., Chiang, W.-L., Yu, Y.-H., Jan, J.-T., **Lin, K.-I.** Wong, C.-H., and Ma, C. (2019) Egg-based influenza split virus vaccine with monoglycosylation induces cross-strain protection against influenza virus infections. *Proc Natl Acad Sci USA*. 116 (10): 4200-4205.
16. Ko, Y.-A., Chan, Y.-H., Liu, C.-H., Liang, J.-J., Chuang, T.-H., Hsueh, Y.-P., Lin, Y.-L., and **Lin, K.-I.\*** (2018) Blimp-1-mediated pathway promotes type I IFN production in plasmacytoid dendritic cells by targeting to interleukin-1 receptor-associated kinase M. *Frontiers in Immunology*. <https://doi.org/10.3389/fimmu.2018.01828>. **\*corresponding author**
17. Tsai, M.-S., Chiang, M.-T., Tsai, D.-L., Yang, C.-W., Hou, H.-S., Li, Y.-R., Chang, P.-C., Lin, H. H., Chen, H.-Y., Hwang, I.-S., Wei, P.-K., Hsu, C.-P., **Lin, K.-I.** Liu, F.-T., Chau, L.-Y. (2018) Galectin-1 restricts vascular smooth muscle cell motility via modulating adhesion force and focal adhesion dynamics. *Scientific Reports*. 8(1): 11497.
18. Hung, K.-H., Woo, Y. H., Lin, I.-Y., Liu, C.-H., Wang, L.-C., Chen, H.-Y., Chiang, B.-L., and **Lin, K.-I.\*** (2018) The KDM4A/KDM4C/NF- $\kappa$ B and WDR5 epigenetic cascade regulates the activation of B cells. *Nucleic Acids Research*. 46(11): 5547-5560. **\*corresponding author**
19. Wu, J.-L., Chiang, M.-F., Hsu, P.-H., Tsai, D.-Y., Hung, K.-H., Wang, Y.-H., Angata, T.\* and **Lin, K.-I.\*** (2017) O-GlcNAcylation is required for B cell homeostasis and antibody responses. *Nature Communications*. 8(1): 1854. **\*corresponding author**
20. Lai, C.-Y., Su, Y.-W., **Lin, K.-I.** Hsu, L.-C. and Chuang, T.-H. (2017) Natural modulators of endosomal Toll-like receptor-mediated psoriatic skin inflammation. *Journal of Immunology Research*.10.1155/2017/7807313.
21. Chen, T.-T., Tsai, M.-H., Kung, J.T., **Lin, K.-I.** Decker, T. and Lee, C.-K. (2016) STAT1 regulates marginal zone B cell differentiation in response to inflammation and infection with blood-borne bacteria. *Journal of Experimental Medicine*. 213: 3025-3039.
22. Wu, J.-L., Wu, H.-Y., Tsai, D.-Y., Chiang, M.-F., Chen, Y.-J., Gao, S., Lin, C.-C., Lin, C.-H., Khoo, K.-H., Chen, Y.-J.\* and **Lin, K.-I.\*** (2016) Temporal regulation of Lsp1 O-GlcNAcylation and phosphorylation during apoptosis of activated B cells. *Nature Communications*. 7:12526. doi: 10.1038/ncomms12526. **\*corresponding author** ([Academia Sinica Significant Research Publication](#))
23. Chien, C.-Y., Lee, H.-S. Lee, Cho, C.H.H., **Lin, K.-I.** Tosh, D., Wu, R.-R., Mao, W.-Y., Shen, C.-

- N. (2016) Maternal Vitamin A deficiency during pregnancy affects vascularized islet development. *Journal of Nutritional Biochemistry*. 36:51-59.
24. Yu, Y.-H., and **Lin, K.-I\*** (2016) Factors that regulate the generation of antibody-secreting plasma cells. *Advances in Immunology*. 131:61-99. **\*corresponding author**
  25. Hung, K.-H., Su, S.-T., Chen, C.-Y., Hsu, P.-H., Huang, S.-Y., Wu, W.-J., Chen, M.M., Chen, H.-Y., Wu, P.-C., Lin, F.-R., Tsai, M.-D., and **Lin, K.-I\*** (2016) Aiolos collaborates with Blimp-1 to regulate the survival of multiple myeloma cells. *Cell Death and Differentiation*. 23(7), 1175–1184. **\*corresponding author**
  26. Tsai, D.-Y., Hung, K.-H., Lin, I.-Y., Su, S.-T., Wu, S.-Y., Chung, C.-H., Wang, T.-C., Li, W.-H., Shih, A. C.-C.\*, and **Lin, K.-I\*** (2015) Uncovering miRNA regulatory hubs that modulate plasma cell differentiation. *Scientific Reports*. 5: 17957. **\*corresponding author**
  27. 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**
  28. 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. [\(Cover story\)](#)
  29. 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(5): 2207-2217. **\*corresponding author**
  30. 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**
  31. 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: the journal of biological databases and curation (Oxford)* 25; 2014(0): bau034
  32. 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(2): 189-204. **\*corresponding author**
  33. 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.
  34. 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(7): 2476-2481. **\*corresponding author** [\(Highlighted by PNAS\)](#)
  35. 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. [\(Highlighted by PNAS\)](#)
  36. 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**
  37. 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**
38. 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(6): 677-689. **\*corresponding author**
  39. 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, Academia Sinica Significant Research Publication](#))
  40. 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.
  41. Lin, F.-R., Huang, S.-Y., Hung, 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 (5): 1039-1047. **\*corresponding author** ([Academia Sinica Significant Research Publication](#))
  42. 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 (7): 631-637. **\*corresponding author** ([Cover story and highlighted by A-IMBN](#))
  43. 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.
  44. 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.
  45. 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.
  46. 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(4): 1643-1652. **\*corresponding author**
  47. 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](#))
  48. 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**
  49. 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](#))
  50. 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**
  51. **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**

**(Ph.D. and Postdoctoral Research Work)**

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