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Current Positions

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Education

- M.S. The Graduate Institute of Microbiology and Immunology, National Yang-Ming University, Taiwan (1996)
- Ph.D. Department of Molecular Virology, Immunology and Medical Genetics, The Ohio State University, OH, USA (2003)
- Postdoc. Department of Immunobiology, Yale University School of Medicine, CT, USA (2003-2008)

Expertise

Immunology, Molecular Biology, Cancer Immunology

Research Interests

I have a broad background in immunology, with specific training and expertise in innate immunity, dendritic cell biology and T cell differentiation. My primary research interest is on studying cellular and molecular mechanisms of airway inflammation. In addition, recently, we have extended our research interest to the cross-talk between pancreatic cancer cells and immune microenvironment.

Selected Grants:

- | | | |
|---|--------------|-----------------------|
| CMU-
The role of TRIM37 in SLE
Role: PI | HC Chen (PI) | 08/01/2020-07/31/2021 |
| MOST 107-2320-B-039-016
Cellular and molecular mechanism underlying the impact of TRIM37 on allergic airway inflammation
Role: PI | HC Chen(PI) | 08/01/2018-07/31/2019 |
| MOST 106-2320-B-039-032
The role of TRIM37 in allergic airway inflammation
Role: PI | HC Chen (PI) | 08/01/2017-07/31/2018 |

DMR-107-033	CC Yeh (co-PI)	08/01/2017-07/31/2018
Investigating the pathogenesis roles of TRIM37 in pancreatic cancer development		
Role: Co- PI		
NSC 101-2314-B-039-013-MY3	YA Tsou (PI)	08/01/2012-07/31/2015
Role of PLUNC-1 protein on bacterial biofilm formation and otorhinolaryngologic infections		
Role: Co-PI		
NSC 102-2320-B-039-041	HC Chen(PI)	08/01/2013-07/31/2014
Role of CXCR7 in airway inflammation		
Role: PI		
NSC 100-2320-B-039-023	HC Chen (PI)	08/01/2011-07/31/2012
Role of regulatory T cells in regulating airway immune homeostasis		
Role: PI		
NSC 98-2320-B-039-004	HC Chen (PI)	03/01/2009-07/31/2010
Cellular and Molecular Mechanisms in the Initiation of Airway Inflammation		
Role: PI		

Selected Publications

1. Liu, YM, **Chen HC**, Chen YC, Yu WY, Ho MY, Ho CY, Lai M, Su WC* , miR-1975 serves as an indicator of clinical severity upon influenza infection , Eur J Clin Microbiol Infect Dis. 2020 Aug 19: 1-9
2. Wei ST, HuangYC, Hsieh ML, Lin YJ, Shyu WC, **Chen HC**, Hsieh CH* , Atypical chemokine receptor ACKR3/CXCR7 controls postnatal vasculogenesis and arterial specification by mesenchymal stem cells via Notch signaling , Cell Death & Disease , 2020 May , 11(5):307
3. Wang YT, Liu HC, **Chen HC**, Lee YC, Tsai TC, Chen HL, Fan HC, Chen CM, Oral immunotherapy with the ingestion of house dust mite extract in a murine model of allergic asthma, Allergy, Asthma & Clinical Immunology. 2018 14:43.
4. Hung-Chih Chang, Po-Han Huang, Fu-Sheng Syu, Chia-Hung Hsieh, Sunny Li-Yun Chang, Jean Lu*, and **Hui-Chen Chen***, Critical involvement of atypical chemokine receptor CXCR7 in allergic airway inflammation, Immunology. 2018 Jun 154(2), 274-284 (NSC 102-2320-B-039-041).
5. Yung-An Tsou , Chia-Der Lin , **Hui-Chen Chen**, Hui-Ying Hsu, Lii-Tzu Wu, Chuan Chiang-Ni, Chih-Jung Chen, Tsu-Fang Wu, Min-Chuan Kao, Yu-An Chen, Ming-Te Peng, Ming-Hsui Tsai, Chuan-Mu Chen , Chih-Ho Lai, Interleukin-13 Inhibits Lipopolysaccharide-Induced BPIFA1 Expression in Nasal Epithelial Cells, PLoS One. 2015 Dec 8;10(12):e0143484 (NSC 101-2314-B-039-013)
6. **Hui-Chen Chen**, Wan-Chu Chien, Miao-Ying Jang, Ming-Yu Hsieh, Ming-Der Lai, Maa Ming-Chei* and Tzeng-Horng Leu, The iNOS/Src/FAK axis contributes to lithium chloride-mediated macrophage migration, NITRIC OXIDE-BIOLOGY AND CHEMISTRY, 2015 Apr, 47:58-64
7. Chun-Chieh Yeh, Chia-Ing Jan, Horng-Ren Yang, Po-Han Huang, Long-Bin Jeng, Wen-Pang Su, and **Hui-Chen Chen***, Comparison and Efficacy of LigSure and Rubber Band Ligature in Closing the Inflamed Cecal Stump in a Rat model of Acute Appendicitis. BIOMED RESEARCH INTERNATIONAL, 2015 Jan, vol. 2015, Article ID 260312, 8 pages. doi:10.1155/2015/260312
8. Sue-Jane Lin*, Ming Lo, Rei-Lin Kuo, Shin-Ru Shih, David M Ojcius, Jean Lu, Chien-Kuo Lee, **Hui-Chen Chen**, Meei Yun Lin, Chuen-Miin Leu, Chia-Ni Lin and Ching-Hwa Tsa * , The pathological effects of CCR2+ inflammatory monocytes are amplified by an IFNAR1-triggered chemokine feedback loop in highly pathogenic influenza infection, JOURNAL OF BIOMEDICAL SCIENCE. 2014 Nov 18;21(1):99

9. Ming-Yu Hsieh, Miao Ying Chang, Yen-Jen Chen, Li Yung Kuo, Tsung-Hsien Chuang, Guann-Yi Yu, Chun Hei Antonio Cheung, **Hui-Chen Chen**, Ming-Chei Maa*, Tzeng-Horng Leu* , The inducible nitric-oxide synthase (iNOS)/Src axis mediates Toll-like receptor 3 Tyrosine 759 phosphorylation and enhances its signal transduction, leading to interferon-beta synthesis in macrophages , JOURNAL OF BIOLOGICAL CHEMISTRY , 2014 Mar , 289(13):9208- 9220
10. Yung-An Tsou, Ming-Te Peng, Yi-Fang Wu, Chih-Ho Lai, Chia-Der Lin, Chih-Jaan Tai, Ming-Hsui Tsai, Chuan-Mu Chen*, **Hui-Chen Chen*** , Decreased PLUNC expression in nasal polyps is associated with multibacterial colonization in chronic rhinosinusitis patients , EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY , 2014 Feb , 271(2): 299-304 (NSC 101-2314-B-039-013)
11. Jiunn-Horng Chen, Po-Han Huang, Chen-Chen Lee, Pin-Yu Chen, **Hui-Chen Chen*** , A bovine whey protein extract can induce the generation of regulatory T cells and shows potential to alleviate asthma symptoms in a murine asthma model , BRITISH JOURNAL OF NUTRITION , 2013 May , 109(10):1813-1820
12. **Hui-Chen Chen†**, Hao-Teng Chang†, Po-Han Huang, Margaret Dah-Tsyr Chang, Ren-Shyan Liu, Yu-Jung Lin, Chia-Hung Hsieh* , Molecular Imaging of Heparin Sulfate Expression with Radiolabeled rECP Predicts Lung Allergic Inflammation in a Mouse Model for Asthma , JOURNAL OF NUCLEAR MEDICINE , 2013 May , 54(5):1-8
13. Chih-Yang Huang, Chien-Hsun Lin, Tung-Tso Ho, **Hui-Chen Chen**, Mei-Yun Chu, Wei-Shen Sun, Wei-Chien Kao, Shan-hui Hsu*, Huey-Shan Hung* , Enhanced migration of Wharton's jelly mesenchymal stem cells grown on polyurethane nanocomposites , Journal of Medical and Biological Engineering , 2013 May , 33(2):139-148
14. Yung-An Tsou, Tzu-Chieh Lin, Chih-Jaan Tai, **Hui-Chen Chen**, Te-Huei Yeh, Horng-Jyh Harn, Ming-Hsui Tsai, Chia-Ing Jan* , Decreased SPLUNC1 expression is associated with Pseudomonas infection in surgically treated chronic rhinosinusitis patients who may require repeated sinus surgery , LARYNGOSCOPE , 2013 , Apr, 123(4):845-851
15. Ko-Hsin Chin†, Zhi-Le Tu†, Yi-Che Su†, Yu-Jen Yu, **Hui-Chen Chen**, Yuan-Chao Lo, Chin-Pan Chen, Glen Barber, Mary Lay-Cheng Chuah, Zhao-Xun Liang, Shan-Ho Chou* , Novel c-di-GMP recognition modes of the mouse innate immune adaptor protein STING , ACTA CRYSTALLOGRAPHICA SECTION D-BIOLOGICAL CRYSTALLOGRAPHY , 2013 Mar , 69(Pt3):352-366
16. Jiunn-Horng Chen, Wen-Harn Pan*, Chih-Cheng Hsu, Wen-Ting Yeh, Shao-Yuan Chuang, Pin-Yu Chen, **Hui-Chen Chen**, Chwen-Tzuei Chang and Wei-Lun Huang , Impact of obesity and hypertriglyceridemia on gout development with or without hyperuricemia: a prospective study , ARTHRITIS CARE & RESEARCH , 2013 Jan , 65(1):133-140
17. Chen-Chen Lee*, Wang CN, Kang JJ, Laio JW, Chiang BL, **Hui-Chen Chen**, Chia-Der Lin, Huang SH, Lai YT , Anti-Allergic Asthma Properties of Brazilin through Inhibition of T(H)2 Responses in T Cells and in a Murine Model of Asthma , JOURNAL OF AGRICULTURAL AND FOOD CHEMISTRY , 2012 Sep , 60(37):9405-9414
18. Dah-Yuu Lu †, **Hui-Chen Chen†**, MS Yang, Yuan-Man Hsu, HJ Lin, Chih-Hsin Tang, Che-Hsin Lee, Cheng-Kuo Lai, Chun-Jung Lin, Woei-Cherng Shyu, FY Lin, Chih-Ho Lai* , Ceramide and TLR4 are mobilized into membrane rafts in response to Helicobacter pylori infection in gastric epithelial cells , INFECTION AND IMMUNITY , 2012 Jun , 80(5):1823-1833
19. Yen-Jen Chen, Ming-Yu Hsieh, Miao Ying Chang, **Hui-Chen Chen**, Ming-Shiou Jan, Maa Ming-Chei*, Tzeng-Horng Leu* , Eps8 protein facilitates phagocytosis by increasing TLR4-MyD88 protein interaction in lipopolysaccharide- stimulated macrophages , JOURNAL OF BIOLOGICAL CHEMISTRY , 2012 May , 287(22):18806-18819
20. Natarajan Muthusamy*, **Hui-Chen Chen**, Girish Rajgolikar, Kenneth G. Butz, Frank W. Frissora, Richard M. Gronostajski , Recombination activation gene-2-deficient blastocyst complementation analysis reveals

- an essential role for nuclear factor I-A transcription factor in T-cell activation , INTERNATIONAL IMMUNOLOGY , 2011 Jun , 23(6):385-390
21. Ming-Chei Maa, Miao Ying Chang, Jiarung Li, Yu-Yun Li, Ming-Yu Hsieh, Ching-Jau Yang, Yen-Jen Chene, Yahan Li, **Hui-Chen Chen**, Wei Erh Cheng, Ching-Yun Hsieh, Chun-Wen Cheng, Tzeng-Horng Leu* , The iNOS/Src/FAK axis is critical in Toll-like receptor-mediated cell motility in macrophages , BIOCHIMICA ET BIOPHYSICA ACTA- MOLECULAR CELL RESEARCH, 2011 Jan 1813(1): 136-147.
 22. Melanie Albrecht, **Hui-Chen Chen**, Paula Preston-Hurlburt, Patricia Ranney, Heinz-Gerd Hoymann, Joachim Maxeiner, Valerie Staudt, Christian Taube, H. Kim Bottomly, Anna-Maria Dittrich* , T(H)17 cells mediate pulmonary collateral priming , JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, 2011 Jul , 128(1):168-177
 23. Huey-Shan Hung, **Hui-Chen Chen**, Chang-Hai Tsai, Shinn-Zong Lin* , Novel approach by nanobiomaterials in vascular tissue engineering , CELL TRANSPLANTATION , 2011 Jan , 20(1):63-70
 24. Chen-Chen Lee*, Chien-Neng Wang, Yu-Ting Lai, Jaw-Jou Kang, Jiunn-Wang Liao, Bor-Luen Chiang, **Hui-Chen Chen**, Yu-Wen Cheng , Shikonin Inhibited Bone Marrow-Derived Dendritic Cell Maturation and Suppressed Allergic Airway Inflammation in a Murine Model of Asthma , BRITISH JOURNAL OF PHARMACOLOGY , 2010 Dec , 161(7):1496-511
 25. Anna M. Tan*, **Hui-Chen Chen**, Pierre Pochard, Stephanie C. Eisenbarth, Christina A. Herrick, H. Kim Bottomly , TLR4 signaling in stromal cells is critical for the initiation of allergic Th2 responses to inhaled antigen , JOURNAL OF IMMUNOLOGY , 2010 Mar , 184(7):3535-3544
 26. Anna M. Dittrich*, **Hui-Chen Chen**, Lan Xu, Patricia Ranney, Sean Connolly, Timur O. Yarovinsky and H. Kim Bottomly , A new mechanism for inhalational priming: IL-4 bypasses innate immune signals , JOURNAL OF IMMUNOLOGY , 2008 Nov , 181(10):7307-7315.
 27. Jan Czyzyk, **Hui-Chen Chen**, Kim Bottomly and Richard A. Flavell. 2008. P21 Ras/Impedes Mitogenic signal propagation regulates cytokine production and migration in CD4 T cells. J Biol Chem. 283(34):23004-15
 28. **Chen, Hui-Chen**, Byrd JC, Muthusamy N. 2006. Differential role for cyclic AMP response element binding protein-1 in multiple stages of B cell development, differentiation, and survival. J Immunol. 2006 176(4):2208-18