Chun I Yu, Ph.D.

Curriculum Vitae

I. Personal Data

Name	YU, CHUN I
Address	600 Main St., Bar Harbor, ME 04609
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II. Education

Institution	Country	Major	Degree	Dates Attended
Baylor University	USA	Biomedical Studies	Ph.D.	08/2001~05/2008
Baylor University	USA	Biomedical Studies	M.S.	08/2001~05/2004
National Taiwan University	TAIWAN	Zoology	M.S.	09/1998~06/2000
National Taiwan University	TAIWAN	Zoology	B.S.	09/1993~06/1997

III. Personal Statement

I am an immunologist and have earned my Ph.D. in 2008 from Baylor University in Waco, Texas. There I joined the laboratory of Dr. Karolina Palucka to study the immune response against influenza virus in humanized mice, an in vivo model of human immune system. Then I went to Taipei, Taiwan for a post-doctoral fellowship in the laboratory of Professor Bor-Luen Chiang at the National Taiwan University Hospital where I designed and tested vaccines against enterovirus type 71 using both mouse and non-human primates. In 2010, I rejoined Baylor Institute for Immunology Research.

Immunization currently averts an estimated 2 to 3 million deaths every year from vaccine-preventable diseases including measles, polio, rubella and tetanus etc. Despite the availability, flu causes an average 200,000 Americans to go to the hospital and kills thousands to tens of thousands of people depending on the severity of the season. The generation of memory T cells and antibodies that are able to limit the early replication of the pathogen upon re-exposure represents the basic goal of vaccination; therefore, it's important to understand DCs at mucosal sites and how they regulate mucosal T cell immunity in the human. Due to inherent difficulties in assessing the dynamics of cellular interactions using in vitro systems, humanized mice represent the best in vivo model. I have dedicated my scientific career to improve and to utilize humanized mouse model to evaluate novel vaccine strategies based on targeting DCs for human diseases.

IV. Experience

Position	Organization	Dates
Associate Research Scientist	The Jackson Laboratory, USA	06/2014~present
Research Associate	Baylor Institute for Immunology Research, Baylor Research Institute, USA	04/2010~05/2014
Postdoctoral Fellow	Graduate Institute of Clinical Medicine, National Taiwan University, TAIWAN	05/2009~02/2010
Postdoctoral Fellow	Baylor Institute for Immunology Research, Baylor Research Institute, USA	04/2008~03/2009

Research Assistant	Baylor Institute for Immunology Research, Baylor Research Institute, USA	05/2003~03/2008
Research Assistant	Graduate Institute of Clinical Medicine, National Taiwan University, TAIWAN	08/2000~06/2001
Research Assistant	Department of Zoology, National Taiwan University, TAIWAN	08/1997~07/1998

V. Honors/ Awards

The Federation of Clinical Immunology Societies Scholarship to attend the annual meeting "FOCIS 2008" Boston, Massachusetts, USA (2008)

Keystone Symposia Scholarship to attend the Keystone Symposium "Immunological Intervention in Human Disease" Big Sky, Montana, USA (2007)

Excellent Thesis Award for graduate students of the Science College, National Taiwan University, TAIWAN (2000)

Scholarship offered by Foundation for the Advancement of Outstanding Scholarship, TAIWAN (1999)

VI. Academic activities

Keystone Symposium, "Pathogenesis of Respiratory Viruses", Jan 19-24, 2014 in Keystone, Colorado, USA.

Yu, C. I., P. Metang, C. D. Becker, F. Marches, Y.Y. Wang, J. Banchereau, M. Merad, A. K. Palucka: Human CD141+ and CD1c+ DCs differentially control CD4+ T cell responses to influenza vaccine. Poster Presentation

Cooperative Centers on Human Immunology (CCHI) Annual Meeting, Oct 24-25, 2013 in Bethesda, Maryland, USA.

Yu, C. I., C. D. Becker, F. Marches, A. Garcia-Sastre, J. Banchereau M. Merad, and A. K. Palucka: Humanized mice to study dendritic cell biology. Oral Presentation

Keystone Symposium, "Understanding Dendritic Cell Biology to Advance Disease Therapies", March 3-8, 2013 in Keystone, Colorado, USA.

Yu, C. I., C. D. Becker, F. Marches, Y.Y. Wang, A.J. Helft, M. Leboeuf, E. Anguiano, S. Pourpe, K. Goller, V. Pascual, J. Banchereau, M. Merad, A. K. Palucka: Human CD1c+ DCs drive the differentiation of CD103+ intraepithelial-like CD8+ T cells via TGF beta. Poster Presentation

Annual Meeting of The American Association of Immunologists, "Immunology 2012", May 4-8, 2012 in Boston, Massachusetts, USA.

Yu, C. I., C. D. Becker, F. Marches, A. Garcia-Sastre, J. Banchereau M. Merad, and A. K. Palucka: Human $CD1c^+$ DCs drive the differentiation of $CD103^+$ intraepithelial $CD8^+$ T cells via TGF beta. Oral and Poster Presentation

Cooperative Centers on Human Immunology (CCHI) Annual Meeting, Dec 13-14, 2011 in Alanta, Georgia, USA.

Yu, C. I., C. D. Becker, F. Marches, A. Garcia-Sastre, J. Banchereau M. Merad, and A. K. Palucka: Lung BDCA-1^+ DCs drive the differentiation of $CD103^+$ intraepithelial $CD8^+$ T cells in humanized mice. Poster Presentation

Annual Baylor Symposium and Workshop on Human Immunology and Biodefense, Oct 29, 2011 in Dallas,

Texas, USA.

Yu, C. I., C. D. Becker, F. Marches, A. Garcia-Sastre, J. Banchereau M. Merad, and A. K. Palucka: Lung BDCA-1^{+} DCs drive the differentiation of CD103^{+} intraepithelial CD8^{+} T cells in humanized mice. Poster Presentation

Keystone Symposium, "Dendritic Cells and the Initiation of Adaptive Immunity", February 12-17, 2011 in Santa Fe, New Mexico, USA.

Yu, C. I., C. D. Becker, F. Marches, A. Garcia-Sastre, J. Banchereau, M. Merad, and A. K. Palucka: The role of human lung dendritic cells in shaping T cell responses. Poster Presentation.

8th Annual Meeting of the Federation of Clinical Immunology Societies "FOCIS 2008", June 5-9, 2008 in Boston, Massachusetts, USA.

Yu, C. I., M. Gallegos, F. Marches, S. Zurawski, O. Ramilo, G. Zurawski, A. Garcia-Sastre, J. Banchereau and A.K. Palucka: Humanized Mice to Test Influenza Vaccines. Oral Presentation.

Annual Meeting of the American Association of Immunologists, "Experimental Biology 2008", April 5-9, 2008 in San Diego, California, USA.

Yu, C. I., M. Gallegos, F. Marches, S. Zurawski, O. Ramilo, G. Zurawski, A. Garcia-Sastre, J. Banchereau and A.K. Palucka: Cross-presentation of Influenza Virus Vaccine Antigens to CD8+ T Cells in Humanized Mice. Poster Presentation.

Keystone Symposium, " Immunological Intervention in Human Disease", January 6-11, 2007 in Big Sky, Montana, USA.

Yu, C. I., F. Marches, A. Pedroza, M. Gallegos, A. Garcia-Sastre, J. Banchereau and A.K. Palucka: Humice to Test Efficacy of Vaccines against Influenza Virus. Oral Presentation.

Annual Baylor Symposium and Workshop on Human Immunology and Biodefense, Nov 4-5, 2006 in Dallas, Texas, USA.

Yu, C. I., F. Marches, A. Pedroza, M. Gallegos, A. Garcia-Sastre, J. Banchereau and A.K. Palucka: Humice to Test Efficacy of Vaccines against Influenza Virus. Oral Presentation.

Annual Meeting of The American Association of Immunologists, "Immunology 2006", May 12-16, 2006 in Boston, Massachusetts, USA.

Yu, C. I., F. Marches, M. Gallegos, A. Garcia-Sastre, J. Banchereau and A.K. Palucka: Humice to Test Efficacy of Vaccines against Influenza Virus. Poster presentation.

Annual Baylor Symposium and Workshop on Human Immunology and Biodefense, Nov 30-31, 2005 in Dallas, Texas, USA.

Yu, C. I., F. Marches, M. Gallegos, A. Garcia-Sastre, J. Banchereau and A.K. Palucka: In Vivo Model of Influenza Virus Infection in Humouse. Oral Presentation.

4th Symposium on Disease in Asian Aquaculture, "Aquatic Animal Health for Sustainability", November 22-26, 1999 in Cebu, Philippines.

Yu, C. I. and Y. L. Song: Outbreaks of Taura syndrome in Pacific white shrimp (*Penaeus vannamei*) cultured in Taiwan. Poster Presentation.

Annual Symposium of Fisheries Society of Taiwan. December, 1997 in Pingtung, Taiwan.

Yu, C. I. and Y. L. Song: Establishment of ELISPOT in grouper. Oral Presentation.

VII. Publications

A. **Referred papers**

Yu, C. I., C. Becker, P. Metang, F. Marches, Y. Wang, T. Hori, J. Banchereau, M. Merad, and A. K. Palucka. 2014. Human CD141+ Dendritic Cells Induce CD4+ T Cells To Produce Type 2 Cytokines. *J Immunol* 193: 4335-4343.

Banchereau, R., N. Baldwin, A. M. Cepika, S. Athale, Y. Xue, **C. I. Yu**, P. Metang, A. Cheruku, I. Berthier, I. Gayet, Y. Wang, M. Ohouo, L. Snipes, H. Xu, G. Obermoser, D. Blankenship, S. Oh, O. Ramilo, D. Chaussabel, J. Banchereau, K. Palucka, and V. Pascual. 2014. Transcriptional specialization of human dendritic cell subsets in response to microbial vaccines. Nat Commun 5: 5283.

Wu, T.C., K Xu, R. Banchereau, F. Marches, **C. I. Yu**, J. Martinek, E. Anguiano, A. Pedroza-Gonzalez, G. J. Snipes, J. O'Shaughnessy, S. Nishimura, Y.J. Liu, V. Pascual, J. Banchereau, S. Oh, K. Palucka. 2014. Ligation of dectin-1 on tumor infiltrating dendritic cells promotes breast cancer rejection. Cancer Immunology Research, 2 (5), 487-500.

Yu, C. I., C. Becker, Y. Wang, F. Marches, J. Helft, M. Leboeuf, E. Anguiano, S. Pourpe, K. Goller, V. Pascual, J. Banchereau, M. Merad, A. K. Palucka. 2013. Human CD1c+ dendritic cells drive the differentiation of CD103+ CD8+ mucosal T cells via TGF-β. Immunity, 38, 818-830.

Lin, Y.L., **C. I**. **Yu,** Y. C. Hu, T. J. Tsai, Y .C. Kuo, W. K. Chi, A. N. Lin, and B. L. Chiang. 2012. Enterovirus type 71 neutralizing antibodies in the serum of macaque monkeys immunized with EV71 virus-like particles. Vaccine, 30, 1305-1312.

Yu, C. I., and B. L. Chiang. 2010. A new insight into hepatitis C vaccine development. Journal of Biomedicine and Biotechnogloy, doi:10.1155/2010/548280. Review.

Matsui, T., J. E. Connolly, M. Michnevitz, D. Chaussabel, **C. I. Yu**, C. Glaser, S. Tindle, M. Pypaert, H. Freitas, B. Piqueras, J. Banchereau and A. K. Palucka. 2009. CD2 distinguishes two subset of human plasmacytoid dendritic cells with distinct phenotype and functions. Journal of Immunology, 182, 6815-6823.

Frleta, D., **C. I. Yu**, E. Klechevsky, J. Banchereau, and A. K. Palucka. 2009. Influenza virus and poly I:C inhibit presentation of endogenous antigens derived from infected dead cells captured by human dendritic cells. Journal of Immunology, 182, 2766-2776.

Yu, C. I., M. Gallegos, F. Marches, G. Zurawski, O. Ramilo, A. Garcia-Sastre, J. Banchereau, and A. K. Palucka. 2008. Broad influenza-specific CD8+ T-cell responses in humanized mice vaccinated with influenza virus vaccines. Blood, 112, 3671-3678.

Aspord, C., **C. I. Yu**, J. Banchereau, and A. K. Palucka. 2007. Humanized mice for the development and testing of human vaccines. Expert Opinion on Drug Discovery, 2 (7), 949-960. Review

Song, Y. L, **C. I. Yu**, T. W. Lien, C. C. Huang and M. N. Lin. 2003. Haemolymph parameters of Pacific white shrimp (*Litopenaeus vannamei*) infected with Taura syndrome virus. Fish and Shellfish Immunology, 14 (4), 317-331.

Lee, Y. L., Y. L. Ye, **C. I. Yu**, Y. L. Wu, Y. L. Lai, P. H. Ku, R. L. Hong, and B. L. Chiang. 2001. Construction of single-chain interleukin-12 DNA plasmid to treat airway hyperresponsiveness in an animal model of asthma. Human Gene Therapy, 12, 2065-2079.

Yu, C. I. and Y. L. Song. 2000. Outbreaks of Taura syndrome in Pacific white shrimp (*Penaeus vannarnei*) cultured in Taiwan. Fish Pathology, 35 (1), 21-24.

B. Books

Yu, C. I. 2008. Ph.D. Dissertation "Humanized Mice to Test Vaccination against Influenza Virus via Dendritic Cells" supervised by A. Karolina Palucka, Baylor University, Waco, Texas USA

Yu, C. I. 2000. Master Thesis "Hemoplasma analysis of Pacific white shrimp (*Litopenaeus vannamei*) infected with Taura syndrome virus" supervised by Yen-Ling Song, National Taiwan University, Taipei TAIWAN

VIII. Patents

Palucka, A. K., J. F. Banchereau, F. Marches, **C. I. Yu**, S.K. Oh, T. C. Wu. Reprogramming Immune Environment in Breast Cancer via Dendritic Cells**.** US20130064855 A1 (03/14/2013), WO2013040027 A1 (03/21/2013).

IX. Grant and Contract Support

List Funding Source, Project Title & Number	Role in Project	Dates	Supplemental Info.
NIH, 5U01AI095611 **ROLE OF MUCOSAL DC SUBSETS IN THE CONTROL OF INFLUENZA A VIRUS IMMUNITY**	PI: M. Merad Key personnel	07/01/11-06/30/16	