BIN-JIN HWANG 黃秉鈞 8/22/25

PERSONAL/CONTACT INFORMATION:
Primary Email: binjin.hwang@duke.edu Secondary Email: binjinhwang@gmail.com
Citizenship: Taiwan, ROC

EDUCATION/TRAINING:
Duke University; Postdoctoral Associate, 2018 ~ now
Mentored by Drs. Zachary Hartman and Herbert Kim Lyerly,
Department of Surgery, Division of Surgical Science, Center for Applied Therapeutics
Duke University

University of North Carolina at Chapel Hill (UNC-CH)
PhD, Department of Microbiology and Immunology, 2011~2018
Mentored by Dr. Zhi Liu, Department of Dermatology, UNC-CH

PhD dissertation: The hemidesmosomal protein BP180 (collagen XVII) in skin cancer and inflammation.

Committee Advisors:	Affiliation
Dr. Jenny PY Ting	Department of Genetics, UNC-CH,
Dr. Yisong Wan	Department of Microbiology and Immunology, UNC-CH
Dr. Maureen A. Su	Department of Microbiology, Immunology and Molecular Genetics, UCLA
Dr. Scott E. Williams	Department of Pathology and Laboratory Medicine, UNC-CH

George Washington University, Washington D.C. **MS in Biochemistry,** 2008~ 2010.
mentored by Dr. Patricia Berg.
MS thesis: BP1 upregulates Twist, a trigger of the epithelial to mesenchymal transition.

National Dong Hwa University, Taiwan R.O.C **BS, major in Life Science,** 2003 ~ 2007.

PUBLICATIONS:
Hwang BJ, Crosby E, Severson D, Trotter T, Tsao LC, Wang T, Liu CX, Yang X, Lei G, Wei J, Ma X, Liu B, Hobeika A, Morse M, Kanu E, Agritelley E, Keler T, He LZ, Lyerly HK and Hartman ZC.
Science Immunology, reviewed twice, minor revision, resubmitted at 8.18.25
CD27 Agonism Enhances Long-Lived $CD4^+$ T Cell Vaccine Responses Critical for Anti-Tumor Immunity.

Hwang BJ, Tsao LC, Agarwal P, Wang T,Wei J, Yang X, Lei G, Osada T, Lyerly HK, Morse MM, Hartman ZC. *Journal for Immunotherapy of Cancer* 2022
Sensitizing immune unresponsive colorectal cancers to Immune Checkpoint Blockade through MAVS overexpression.

Lin L, **Hwang BJ,** Li N, Googe P, Diaz L, Miao E, Vilen B, Thomas N, Ting J, and Liu Z. (**Co-first author**). the *Journal of Immunology* 2020.
Non-cell-autonomous activity of the hemidesmosomal protein BP180/collagen XVII in granulopoiesis in humanized NC16A mice.

Hwang BJ, Zhang Y, Brozowski J, Liu Z, Burrette SW, Lough K, Li N, Williams SE, Su M, Thomas N, Diaz L, and Liu Z. *Oncogene* 2019
The dysfunction of BP180/collagen XVII in keratinocytes promotes melanoma progression.

Zhang Y, **Hwang BJ**, Liu Z, Lough K, Williams SE, Chen J, Burrette SW, Li N, Diaz L, Maureen S, Xiao S and Liu Z. (**Co-first author),** *Proceeding of the National Academy of Science of the United States of America* (*PNAS), 2018*
BP180 dysfunction triggers spontaneous skin inflammation in mice.
This paper has been recommended in F1000Prime as being of special significance in its field.
https://facultyopinions.com/prime/733387042#eval793566431
Hammers C and Izumi K: Faculty Opinions Recommendation of [Zhang Y et al., Proc Natl Acad Sci USA 2018 115(25):6434-6439]. In Faculty Opinions, 28 Oct 2019

Lin L, **Hwang BJ,** Culton DA, Li N, Burette S, Koller BH, Messingham KA, Fairley JA, Lee JJ, Hal RP, An L, Diaz L, and Liu Z**.** (**Co-first author),** *Journal of Investigative Dermatology, 2017*
Eosinophils mediate tissue injury in autoimmune skin disease.

Tsao LC, Crosby EJ, Trotter TN, Agawal P, **Hwang BJ**, Acharya C, Shuptrine CW, Wang T, Wei J, Yang XI, Lei G, Liu CX, Rabiola CA, Chodosh LA, Muller WJ, Lyerly HK, Hartman ZC
CD47 blockade augments Trastuzumab anti-tumor efficacy dependent upon ADCP.
(*JCI Insight,* 2019)

AWARDS:
Podium Presenter Award at Annual Research Day, Duke University Department of Surgery (2024). My research on CD27 has been awarded as one of the top five awardees in basic/translational research, by the Department of Surgery, Duke University.

Featured Research Presenter Award at Duke Cancer Institute Annual Scientific Retreat (2022). My research on CD27 has been awarded by Duke Cancer Institute (DCI) as the top awardee selected from the DCI Immuno-Oncology Program at the 2022 DCI Scientific Retreat.

Podium Presenter Award at Annual Research Day, Duke University Department of Surgery (2019). My research on MAVS has been awarded as one of the top five awardees in basic/translational research, by the Department of Surgery, Duke University.

2016 the American Association of Immunologist (AAI) Young Investigator Award.

The Dissertation Completion Fellowship.
(Awarded by *UNC-CH Graduate School* for the academic year of 2016);
I was one of only top two PhD candidates recommended by the Department of Microbiology and Immunology to the UNC Graduate School for the followship of the year 2016.

First Place, graduate student poster.
(Awarded by *UNC-CH Lineberger Comprehensive Cancer Center*, 2016);
I was the only top graduate student who was awarded at the 2016 Postdoc-Faculty Research Day, by the Lineberger Comprehensive Cancer Center,
UNC-CH. https://unclineberger.org/news-archives/postdoc-day/

The Best Presenter Prize of the Second MS Biochemistry Graduate Student Symposium.
(Department Biochemistry and Molecular Biology, George Washington University 2008)

SELECTED CONFERENCES AND ORAL PRESENTATIONS:
Lightening Talk Presenter *at Duke Cancer Institute Invited Scholar Research Symposium (2025)*

Empowering anti-cancer immunity: CD27 activation drives memory CD4+ antigen specific T cell memory responses and is essential for anti-tumor immunity.

Flash Talk Presenter *at Program in Cell and Molecular Biology Symposium: Beyond Cut, Poison, Burn, Duke University (2024).*
Empowering anti-cancer immunity: CD27 activation drives memory CD4+ antigen specific T cell memory responses and is essential for anti-tumor immunity.

Podium Presenter *at 8th Annual Research Day, Duke University Department of Surgery (2024).*
Empowering anti-cancer immunity: CD27 activation drives memory CD4+ antigen specific T cell memory responses and is essential for anti-tumor immunity

Featured Research Presenter at *Duke Cancer Institute Scientific Retreat, 2022*
Sensitizing breast cancers to immune checkpoint inhibitors through CD27 agonism and vaccination against tumor-associated antigen.
(the only trainee presenter selected from the DCI Immuno-Oncology Program to give oral presentation at the 2022 Duke Cancer Institute Scientific Retreat)

Oral presentation at *AACR Special Conference on Tumor Immunology and Immunotherapy (2019)*
Overexpression of MAVS stimulates anti-tumor immunity and significantly reduces tumor growth of immune insensitive colorectal cancer *in vivo*.
Hwang BJ, Tsao LC, DeLeon G, Wei J, Yang XY, Lei G, Wang T, Morse MM, Lyerly HK, Hartman ZC.

Podium Presenter at *4th Annual Research Day, Duke University Department of Surgery (2019).*
Overexpression of MAVS stimulates anti-tumor immunity and significantly reduces tumor growth of immune insensitive colorectal cancer *in vivo*.
Hwang BJ, Tsao LC, DeLeon G, Wei J, Yang XY, Lei G, Wang T, Morse MM, Lyerly HK, Hartman ZC.

Oral presentation *at 76th* Annual Meeting of Society of Investigative Dermatology (2017)
Myeloid derived suppressor cells are critical in increased melanoma progression in mice lacking BP180/Collagen XVII function.
Hwang BJ, Zhang Y, Peng B, Li N, Williams SE, Thomas N, Su M, Diaz L, and Liu Z.

MENTORSHIP AND TEACHING EXPERIENCE:
Department of Microbiology and Immunology, UNC-CH. Teaching Assistant
(Sep.2012~Dec. 2013), I independently taught undergraduate level Microbiology laboratory class as TA for two semesters. Under the mentorship of Dr. Lorraine Cramer.

Department of Dermatology, UNC-CH.
I mentored three visiting doctoral exchange students from China in Dr. Zhi Liu's lab from 2013~2017, who included Dr. Yang Zhang, Dr. Bin Peng and Dr. Zhen Liu. I mentored all three of them for their two-year exchange stay in UNC-Chapel Hill and we co-authored on my publications.

PROFESSIONAL AFFILIATION:
American Association of Cancer Research.
LANGUAGE SKILL:
Fluent in speaking English and Mandarin Chinese.

Leadership Experience: ROC Army 2nd Lieutenant (Military Service, Jul, 2007~ Jul. 2008, as platoon leader and battalion staff officer)