



Universiteit
Leiden
The Netherlands

Harnessing immune regulation for treatment of human diseases : CD4+CD25+ regulatory T cells & antibody glycosylation

Wang, J.

Citation

Wang, J. (2011, March 15). *Harnessing immune regulation for treatment of human diseases : CD4+CD25+ regulatory T cells & antibody glycosylation*. Retrieved from <https://hdl.handle.net/1887/16626>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the
Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/16626>

Note: To cite this publication please use the final published version (if applicable).

ACKNOWLEDGEMENTS

At the end of the thesis, I would like to express my sincere gratitude to all the people who have contributed to the completion of this thesis.

First, I would like to thank Prof. Rene de Vries at IHB of LUMC for responding to my application email, meeting me in Shanghai and introducing me to Rene Toes a few years ago, which eventually initiated my journey to the Netherlands.

Of course, my utmost gratitude goes to my promotor René and Tom. Thank you for taking the risk of appointing me as a Ph.D student directly from China and your continuous support, guidance as well as inspiring encouragement throughout the up-and-down moments during my work in the past years.

I am grateful to all my colleagues at the department of Rheumatology for their help after my landing on this tiny but great country. I thank Anouk for picking me up at the airport, Ellen and Andreea for their technical guidance in the early period of my work. I thank Leendert for translating all kinds of dutch documents, and together with Annemarie, for your help in buying a car. I thank Jurgen for his help in generating the dutch summary of this thesis. Additionally, I thank Henrike, Annemie, Uli, Karen, Nina, Diane, Inge, Gerrie and others for drawing/donating blood for my work.

I would also like to express my appreciation to our collaborators from the department of Parasitology at LUMC, in particular Manfred and Caroline, for their significant contributions to the second part of this thesis.

I thank my Chinese friends in Leiden, Yu Qin, Wei Xu, Aiying He, Yafeng Ma, Qi Jia, Chunxiu Hu, Xin Leng, Kai Ye, Qilan Li, Xing Wang, Guocai Dong, Dan Ye and Jianhua Ni for their help, which made my life in this foreign country a bit easier and more colorful.

Last but not least, I greatly appreciate the understanding, accompanying, encouragement and support of my wife Ying Zhao. I am also deeply indebted to our parents and grandparents as we have been far away from home for so many years. I thank my sister and brother-in-law for taking care of my parents in the past years. I also thank my daughter, Peici Wang, for the joyful moments as well as sleepless nights she brought to us during the past two years.

CURRICULUM VITAE

Name: Jun Wang
Date of Birth: March 25, 1979
Place of Birth: Zhenjiang, Jiangsu Province, **P.R. China**

1994.9 – 1997.6 Jiangsu Dagang Middle School, Zhenjiang, **P.R. China**
High school graduate

1997.9 – 2001.6 Nanjing University, Nanjing, **P.R. China**
BSc at the Dept. for Intensive Instruction

2001.9 - 2004.6 Nanjing University, Nanjing, **P.R. China**
MSc at the School of Life Sciences
Supervisor: Prof. Qiang Xu

2004.9 - 2004.12 Hong Kong University of Science & Technology, **Hong Kong**
Research assistant at the Dept. of Biology

2005.3 - 2009.2 Leiden University Medical Center, Leiden, **The Netherlands**
Ph.D at the Dept. of Rheumatology
Promotors: Prof. Dr. T.W.J. Huizinga & Prof. Dr. R.E.M. Toes

2009.3 - 2010.8 Leiden University Medical Center, Leiden, **The Netherlands**
Post-Doctoral Fellow at the Dept. of Rheumatology
Supervisor: Prof. Dr. R.E.M. Toes

2010.9 - Leiden University Medical Center, Leiden, **The Netherlands**
Post-Doctoral Fellow at the Dept. of Human Genetics
Supervisor: Prof. Dr. S.M. van der Maarel

PUBLICATIONS

1. de Greef JC*, **Wang J***, Balog J, den Dunnen JT, Frants RR, Straasheim KR, Aytekin C, van der Burg A, Duprez L, Ferster A, Gennery AR, Gimelli G, Reisli I, Schuetz C, Schulz A, Smeets DF, Sznajer Y, Wijmenga C, van Ostaijen-ten Dam MM, Lankester AC, van Tol MJ, van den Elsen PJ, Weemaes CM, van der Maarel SM. Loss of function mutations in *ZBTB24* cause immunodeficiency, centromeric instability and facial anomalies (ICF) syndrome type 2. *Submitted*. (* contributed equally)
2. **Wang J**, Balog CI, Stavenhagen K, Koeleman CA, Scherer HU, Deelder AM, Huizinga TW, Toes RE, Wuhrer M. Fc-glycosylation of IgG1 is modulated by B cell stimuli. *Mol. Cell. Proteomics*. Revision
3. Zhao Y, Ye D, **Wang J**, Meurs I, Azzis S, Van Berkel TJ, Van Eck M. Stage-specific dynamics of established atherosclerotic lesions in response to dietary lipid lowering. *Am. J. Pathol.* Revision
4. **Wang J**, Han WG, Foks AC, Huizinga TW, Toes RE. Neutralization of IL-4 reverses the nonresponsiveness of CD4⁺ T cells to regulatory T cell induction in non-responder mouse strains. *Mol. Immunol.* 2010; 48: 137-46.
5. Kraaij MD, Savage ND, van der Kooij SW, Koekkoek K, **Wang J**, van den Berg JM, Ottenhoff TH, Kuijpers TW, Holmdahl R, van Kooten C, Gelderman KA. Induction of regulatory T cells by macrophages is dependent on reactive oxygen species production. *Proc. Natl. Acad. Sci. U. S. A.* 2010; 107: 17686-91.
6. Scherer HU, van der Woude D, Ioan-Facsinay A, el Bannoudi H, Trouw LA, **Wang J**, Haupl T, Burmester GR, Deelder AM, Huizinga TW, Wuhrer M, Toes RE. Glycan profiling of anti-citrullinated protein antibodies isolated from human serum and synovial fluid. *Arthritis Rheum.* 2010; 62: 1620-9.
7. **Wang J**, Huizinga TW, Toes RE. *De novo* generation and enhanced suppression of human CD4⁺CD25⁺ regulatory T cells by retinoic acid. *J. Immunol.* 2009; 183: 4119-26.
8. Scherer HU, **Wang J**, Toes RE, van der Woude D, Koeleman CA, de Boer AR, Huizinga TW, Deelder AM, Wuhrer M. Immunoglobulin 1 (IgG1) Fc-glycosylation profiling of anti-citrullinated peptide antibodies from human serum. *Proteomics Clin. Appl.* 2009; 3: 106-15.
9. Yi HW, Lu XM, Fang F, **Wang J**, Xu Q. Astilbin inhibits the adhesion of T lymphocytes via decreasing TNF-alpha and its associated MMP-9 activity and CD44 expression. *Int. Immunopharmacol.* 2008; 8:1467-74.
10. **Wang J**, van Dongen H, Scherer HU, Huizinga TW, Toes RE. Suppressor activity among CD4⁺CD25⁺⁺ T cells is discriminated by membrane-bound tumor necrosis factor alpha. *Arthritis Rheum.* 2008; 58:1609-18.
11. **Wang J**, Toes RE. Mechanisms of oral tolerance revisited. *Arthritis Res. Ther.* 2008; 10: 108.
12. **Wang J**, Ioan-Facsinay A, van der Voort EI, Huizinga TW, Toes RE. Transient expression of FOXP3 in human activated nonregulatory CD4⁺ T cells. *Eur. J. Immunol.* 2007; 37:129-38.

13. Zhao Y, Liu JY, **Wang J**, Wang L, Ying H, Tan, RX, Xu, Q. Fumigaclavine C improves concanavalin A-induced liver injury in mice mainly *via* inhibiting TNF- α production and lymphocyte adhesion to extracellular matrices. *J. Pharm. Pharmacol.* 2004; 56: 775-82.
14. **Wang J**, Zhao Y, Xu Q. Astilbin prevents concanavalin A-induced liver injury by reducing TNF- α production and T lymphocyte adhesion. *J. Pharm. Pharmacol.* 2004; 56: 495-502.

