

## Yanran Wang

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**EDUCATION** *Ph.D. candidate*, Bioinformatics Sep. 2014 - Present  
**EXPERIENCE** Molecular Genetics Program, Rutgers University, New Jersey, USA  
• GPA: 3.784/4.0

*M.S.*, Clinical Pharmacokinetics Sep. 2011 - Jun. 2014  
*B.S.*, Pharmacy (Clinical Pharmacy Track) Sep. 2007 - Jun. 2011  
West China School of Pharmacy, Sichuan University, Sichuan, China

**PUBLICATIONS** **Wang, Yanran** and Yana Bromberg. "Identifying mutation-driven changes in gene functionality that lead to venous thromboembolism." *Human Mutation*. (Under Review)

**Wang, Yanran**, Maximillian Miller, Yuri Astrakhan, Britt-Sabina Petersen, Stefan Schreiber, Andre Franke, and Yana Bromberg. "Identifying Crohns disease signal from variome analysis." *Genome Medicine*. (Under Review)

Daneshjou, Roxana, **Yanran Wang**, Yana Bromberg, Samuele Bovo, Pier L. Martelli, Giulia Babbi, Pietro Di Lena et al. "Working towards precision medicine: predicting phenotypes from exomes in the Critical Assessment of Genome Interpretation (CAGI) challenges." *Human Mutation*, 38(9) (2017): 1182-1192

Yang, Yujie\*, **Yanran Wang\***, Ting Wang, Xuehua Jiang, and Ling Wang. "Screening active components of modified Xiaoyao powder as NRF2 agonists." *Cell biochemistry and function* 35, no. 8 (2017): 518-526. (\* Equal contribution)

Gao, Yangyang, Junying Chen, Xiqian Zhang, Huiru Xie, **Yanran Wang**, and Shuquan Guo. "Quantification of Paclitaxel and Polyaspartate Paclitaxel Conjugate in Beagle Plasma: Application to a Pharmacokinetic Study." *Journal of chromatographic science* 55, no. 3 (2017): 222-231.

Jin, Zhaohui, **Yanran Wang**, Xiaoqun Ren, Huiru Xie, Yangyang Gao, Ling Wang, and Shichang Gao. "Pharmacokinetics and oral bioavailability of ganoderic acid A by high performance liquid chromatography-tandem mass spectrometry." *International Journal Of Pharmacology* 11, no. 1 (2015): 27-34.

**Wang, Yanran**, Zhaohui Jin, Zhijun Wang, Xuehua Jiang, and Ling Wang. "Pharmacokinetic properties of isradipine after singledose and multipliedose oral administration in Chinese volunteers: a randomized, openlabel, parallelgroup phase I study." *Biomedical Chromatography* 27, no. 12 (2013): 1664-1670.

**CONFERENCE TALKS** "Identifying Crohn's Disease Signal via Variome Analysis"  
at ISMB (Intelligent Systems for Molecular Biology), Chicago, Jul. 2018  
at Human Genetic Variation and Disease Gordon Research Seminar, Maine, Jun. 2018

"Predicting the risk of Venous Thromboembolism with exome data"  
at The Critical Assessment of Genome Interpretation 5, Chicago, Jul. 2018

"Predicting Bipolar Disorder Predisposition from Exome Sequences"

at The Critical Assessment of Genome Interpretation 4, San Francisco, Mar. 2016

**RESEARCH  
EXPERIENCE**

*Research Assistant* 2015 - Present  
Rutgers University, New Jersey, USA

- Designed, implemented and tuned machine learning classifiers to predict complex disease with Next Generation Sequencing data
  - Predicting Tourette’s disorder (current project)
  - Predicted Crohn’s disease (SVM model)
  - Predicted Bipolar disorder (ranked 2nd in 2016 CAGI Bipolar disorder challenge)
  - Predicted Venous thromboembolism (VTE) (ranked 1st in 2018 CAGI VTE challenge)
- Designed and built machine learning models (logistic regression/SVM regression) to predict/recommend dosage for warfarin given genomic and clinical data
- Predicted variant affect of variants in *PCMI* genes (ranked 1st in 2018 CAGI PCMI challenge)
- Performed imputation and genome-wide association study (GWAS) on Chronic Traumatic Encephalopathy (CTE) patients vs. healthy controls
- Designed and built Physiologically-based Pharmacokinetic (PBPK) Model for Manganese

*Research Assistant* 2010 - 2014  
West China Research Center of Clinical Pharmacy, Sichuan, China

- Researched chemopreventive mechanism of phytochemicals on breast cancer via Nrf2 pathway
- Researched PK properties of isradipine capsule intake
- Performed bio-equivalence study for losartan potassium capsules and metformin hydrochloride tablet
- Performed pre-clinical PK study of polyglutamate paclitaxel injection

**TEACHING  
EXPERIENCE**

*Teaching Assistant* 2017 - Present  
Rutgers University, NJ, USA

- Bioinformatics: teaching basics of Linux, Python, R, command line sequence alignment tools, protein database, microarray, machine learning
- Tools for Bioinformatic Analysis: teaching web-interface tools for sequence alignment, protein structure visualization

**HONORS**

Stephen M. Cuskey Travel Award Mar. 2018  
The Top-class Kang Hong<sup>®</sup> Merit-based Award Oct. 2013  
The honor of excellent graduate student 2012 - 2013  
The First-class Bayer<sup>®</sup> Scholarship for Excellent Student Researcher Jun. 2013  
The First-class Scholarship for Outstanding Academic Performance 2013 - 2014  
The Third-class Scholarship for Outstanding Academic Performance 2011 - 2013