# Yi Wang

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## EDUCATION

**Doctorate of Philosophy**, Biochemistry & Molecular Biology
Expected graduate in May 2006
Michigan State University

**Dissertation** Title: Structure and Function Relationship Studies of Dihydroneopterin Aldolases from *Escherichia coli* and *Staphylococcus aureus*
Chair: Dr. Honggao Yan
Michigan State University

**Bachelor of Science**, Chemistry
July 2000
South China University of Technology

## RESEARCH EXPERIENCE

*Graduate research assistant, Michigan State University, January 2002 - Present*

- Operated HPLC analysis to separate small molecule compounds
- Collaborated with Mass Spectrometry team, identified unknown compounds produced in the enzymatic reaction and developed new methods for protein structure and function relationship study
- Established the combination method of the stopped-flow and the chemical quench flow analysis for rapid kinetics of the enzymatic reaction
- Utilized fluorometry for protein-ligand binding affinity measurement
- Designed proton NMR experiment for enzymatic reaction study
- Performed PCR. Cloned, expressed and purified proteins from *Escherichia coli* using Ni-NTA, ion-exchange and gel filtration columns.

## HONORS AND AWARDS

- Granted the Excellence in Research Travel Award, Biochemistry & Molecular Biology, Michigan State University, 2004

- Granted the National College Student Scholarship of the DUPONT Company, China, 1999---2000
- Granted the National College Student Scholarship of the P&G Company, China, 1998---1999

**PUBLICATIONS AND PRESENTATIONS**

- Gwynyth Scherperel, Honggao Yan, Yi Wang and Gavin E. Reid. 'Top Down' Characterization of Site Directed Mutagenesis Products of *Staphylococcus aureus* Dihydroneopterin Aldolase by Multistage Tandem Mass Spectrometry in a Linear Quadrupole Ion Trap. *The Analyst*. 2006.

- Yi Wang, Gwynyth Scherperel, Kade Robert, Gavin Reid and Honggao Yan. The conversion from aldolase to oxygenase: a New Reaction Pathway Created by the Mutant Y54F of Dihydroneopterin Aldolase from *Staphylococcus aureus*. (To be submitted)

·Yi Wang, Yue Li, Yan Wu, and Honggao Yan. Transient State kinetics study of Dihydroneopterin Aldolases from *Escherichia coli* and *Staphylococcus aureus*. (To be submitted)

•Yi Wang, Yue Li, Yan Wu, and Honggao Yan. Structure and function relationship studies of Dihydroneopterin Aldolases from *Escherichia coli* and *Staphylococcus aureus*. (To be submitted).

•Yi Wang, Yue Li, Yan Wu, and Honggao Yan. Structure and function relationship studies of Dihydroneopterin Aldolases from *Escherichia coli* and *Staphylococcus aureus*. Poster. American Society for Biochemistry and Molecular Biology. 2004.

- Yi Wang, Yue Li, Yan Wu, and Honggao Yan. Transient State kinetics study of Dihydroneopterin Aldolases from *Escherichia coli* and *Staphylococcus aureus*. Poster, Midwest Enzyme Chemistry Conference 2003

**REFERENCES**

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