

## Curriculum vitae



Yeng-Tseng Wang

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### **Objective:**

Assistant Professor, Philosophy

### **Education:**

Ph.D., Psychology, National Sun Yat-Sen University, Taiwan 2011

Concentrations: Philosophy, Chemistry

Dissertation: Application of Computer Simulation in the Investigation of Protein  
Drugs and Small Agents

M.A., Philosophy, National Tsing Hua University, Taiwan 2002

Concentrations: Philosophy, Biochemistry

Dissertation: Using Three Dimension Quantitative Structure Activity Relationship to  
Predict and Analyze The Activities of Matrix metalloproteinases-1's Inhibitors

B.A, Philosophy Chemistry, National Sun Yat-Sen University, Taiwan 2000

### **Experience:**

Assistant Research Fellow, 2002-2009

National Center for High-performance Computing, Taiwan

Associate Researcher Fellow, 2009-2013

National Center for High-performance Computing, Taiwan

Assistant Professor, 2013-now  
KAOHSIUNG MEDICAL UNIVERSITY, Taiwan

**Interest areas:**

Molecular dynamic simulations in protein-protein interactions.  
Molecular dynamic simulations in protein-small compounds interactions.  
Molecular dynamic simulations in self-assembling systems.  
Molecular dynamic simulations in membrane systems.  
Protein pathway simulations.  
Web server for drug design.  
CUDA Programming for GPU.

**Publications List:**

- [1]. Thy-Hou Lin,\* Ging-Ming Wang, and Yen-Tseng Wang (2002)"Prediction of  $\beta$ -Turns in Proteins Using the First-Order Markov Models" Journal of Chemical Information and Modeling , 1:42, 123-133.
- [2]. Yeng-Tseng Wang\*, Cheng-Lung Chen, Yu-Ching Shih, Heng-Chuan Kan, Chang-Hung Chen, Jeu-Jiun Hu, Su, Zhi-Yuan (2007) "Molecular dynamics simulation of the binding interaction between hormone glucagon protein and self-assembled monolayer molecules." Chinese Journal of Chemistry, 25(8), 1090-1093.
- [3]. Zhi-Yuan Su\*, Tzuyin Wu, Yeng-Tseng Wang, Hsin-Yi Huang (2008) "An investigation into the linear and nonlinear correlation of two music walk sequences." Physica D, 237(13), 1815-1824.
- [4]. Zhi-Yuan Su\*, Tzuyin Wu, Po-Hua Yang, Yeng-Tseng Wang (2008) "Dynamic analysis of heartbeat rate signals of epileptics using multi-dimensional phase space reconstruction approach" Physica A, 387(10), 2293-2305.
- [5]. Zhi-Yuan Su\*, Chuan-Chen Wang, Tzuyin Wu, Yeng-Tseng Wang, Feng-Cheng Tang (2008) "Instantaneous frequency-time analysis of physiology signals: The application of pregnant women's pulse signals" Physica A, 387(2-3), 485-494.
- [6]. Yeng-Tseng Wang,\* Jun-Min Liao, Cheng-Lung Chen, Zhi-Yuan Su, Chang-Hung Cheng, Jeu-Jiun Hu (2008) "Potential of mean force for human lysozyme-camelid vhh hl6 antibody interaction studies." Chemical Physics Letters, 455(4-6), 284-288. (cited: 6)
- [7]. Yeng-Tseng Wang,\* Zhi-Yuan Su, Jun-Min Liao, Cheng-Lung Chen, (2009) "Potential of mean force for syrian hamster prion epitope protein - monoclonal

- fab 3f4 antibody interaction studies." *European Journal of Medicinal Chemistry*, 44(9), 3504-3508.
8. [8]. Zhi-Yuan Su\*, Yeng-Tseng Wang (2009) "A Molecular Dynamics Simulation of the Human Lysozyme-Camelid VHH HL6 Antibody System" *International Journal of Molecular Sciences*, 10(4), 1719-1727.
  9. [9]. Yeng-Tseng Wang,\* Zhi-Yuan Su, Cheng-Lung Chen (2009) "Potential of Mean Force of the Hepatitis C Virus Core Protein-Monoclonal 19D9D6 Antibody Interaction" *Biophysical Chemistry*, 145(2-3), 86-90.
  10. [10]. Yeng-Tseng Wang,\* Zhi-Yuan Su, Chang-Huain Hsieh, Cheng-Lung Chen (2009) "Predictions of binding for dopamine D2 receptor antagonists derived from an SIE method" *Journal of Chemical Information and Modeling* , 49(10), 2369-2375.
  11. [11]. Tzuyin Wu, Lieh-Jung Chang, Shu-Yin Wang, Zhi-Yuan Su\*, Yeng-Tseng Wang (2009) "Nonlinear Analysis of the Estrous-cycle Time Series in Mice" *Journal of the Korean Physical Society*, 55(4), 1357-1362.
  12. [12]. Zhi-Yuan Su\*, Yeng-Tseng Wang (2009) "An Investigation into the Multifractal Characteristics of the TAIEX Stock Exchange Index in Taiwan" *Journal of the Korean Physical Society*, 54(4), 1385-1394.
  13. [13]. Zhi-Yuan Su\*, Yeng-Tseng Wang, Hsin-Yi Huang, (2009) "A Multifractal Detrended Fluctuation Analysis of Taiwan's Stock Exchange" *Journal of the Korean Physical Society*, 54(4), 1395-1402.
  14. [14]. Yeng-Tseng Wang\*, Chen-hsiung Chan, Zhi-Yuan Su, Cheng-Lung Chen (2010) "Homology modeling, docking, and molecular dynamics reveal HR1039 as a potent inhibitor of 2009 A(H1N1) influenza neuraminidase," *Biophysical Chemistry*, 147:74-80.
  15. [15] Yeng-Tseng Wang\*, Zhi-Yuan Su, (2011) "Modeling and predicting the binding mechanics of HIV P1053-0.5 $\beta$  antibody complex." *Molecular Simulation*, 2:37, 164-171.
  16. [16] Zhi-Yuan Su, Yeng-Tseng Wang\* (2011) "Coarse-grained Molecular Dynamics Simulations of Cobra Cytotoxin A3 Interactions with a Lipid Bilayer: Penetration of Loops into Membranes" *Journal of Physical Chemistry B*, 5:115, 796-802.
  17. [17] Jun-Min Liao, Yeng-Tseng Wang and Cheng-Lung Chen (2011) "Computer simulation to investigate the FRET application in DNA hybridization systems." *Physical Chemistry Chemical Physics*, 13, 10364-10371.
  18. [18] Yeng-Tseng Wang\* and Zhi-Yuan Su (2011) "Free energies and folding mechanics between human prion fragment  $\alpha$ -2 domain and  $\beta$ -2 domain under steered molecular dynamics simulations." *Journal of the Taiwan Institute of*

Chemical Engineers, 42, 719-723.

19. [19] Yeng-Tseng Wang,\* Wen-Jay Lee, Zhi-Yuan Su\* and Cheng-Lung Chen\* (2011) "Carbon-nanotube-based artificial peptide channel: Transportation of small peptide under external electric field force." *Journal of the Taiwan Institute of Chemical Engineers*, 42, 724-726.
20. [20] Rui Li, Jun-Min Liao, Chi-Ruei Gu, Yeng-Tseng Wang and Cheng-Lung Chen (2011) "Theoretical Investigation on Reaction of Sulbactam with Wild-type SHV-1  $\beta$ -lactamase: Acylation, Tautomerization and Deacylation." *Journal of Physical Chemistry B*, 115, 10298-10310.
21. [21] Zhi-Yuan Su, Wen-Jay Lee, Wan-Sheng and Yeng-Tseng Wang\* (2012) "Target Molecular Simulations of RecA Family Protein Filaments." *International Journal of Molecular Sciences*. 13, 7138-7148.
22. [22] Yeng-Tseng Wang\* and Wen-Jay Lee (2012) "Binding hot-spots in an antibody-ssDNA interface: a molecular dynamics study." *Molecular BioSystems* 8, 3274-3280.
23. [23] Yeng-Tseng Wang\* (2013) "Insights from modelling the 3D structure of the 2013 H7N9 influenza A virus neuraminidase and its binding interactions with drugs." *MedChemComm* 4, 1370-1375.
24. [24] Yeng-Tseng Wang\* and Yu-Ching Chen (2014) "Insights from QM/MM Modeling the 3D Structure of the 2009 H1N1 Influenza A Virus Neuraminidase and Its Binding Interactions with Antiviral Drugs." *Molecular Informatics* 33, 240-249.
25. [25] Yeng-Tseng Wang\* and Lea-Yea Chuang (2014) "Insight into the modified Ibalizumab-human CD4 receptor interactions: using a computational binding free energy approach." *Journal of Computer-Aided Molecular Design* (In press).