

# Jeng-Shiung Jan

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## Education/Career:

- 2016-present:** Professor, Dept. of Chemical Engineering,  
College of Engineering, National Cheng Kung University
- 2008-2016:** Assistant/Associate Professor, Dept. of Chemical Engineering,  
College of Engineering, National Cheng Kung University
- 2007-2008:** Postdoctoral fellow, Dept. of Chemical & Biomolecular Engineering,  
Georgia Institute of Technology, GA, USA (Supervisor: Prof. Victor Breedveld)
- 2002-2006:** Ph.D., Dept. of Chemical Engineering,  
Texas A&M University, TX, USA (Supervisor: Prof. Daniel F. Shantz)
- 1998-2002:** Engineer, Foxconn Electronics Inc. and researcher, TTRI, Taipei, Taiwan
- 1996-1998:** Lieutenant, Airborne 62nd, Army, Taoyuan, Taiwan
- 1990-1996:** M.S. and B.S., Dept. of Chemical Engineering,  
National Taiwan University, Taipei, Taiwan

## Research Interest

Functional Polymer, Peptide/Glycopeptide, Biomedical Polymer, Polymers for Energy Application

## Representative Publication

- (1) Phan, T. H. M.; Chen, X.-H.; Huang, S.-T.; **Jan, J.-S.\*** "Hydrogelation of polypeptide-poly(ethylene glycol)-polypeptide amphiphilic triblock copolymers using L-cysteine derivatives" *Euro. Polym. J.*, 196, 112294, (2023).
- (2) Chen, Y.-F.; Yeh, Y.-T.; Su, Y.-C.; Liao, C.-A.; Huang, C.-H.; Cheng, Y.-J.; **Jan, J.-S.\*** "Cell adhesion inhibiting peptides exhibit potent anticancer activity and modulate intestinal microbiota" *Mater. Design*, 224, 111303, (2022).
- (3) Su, C.-F.; Chen, Y.-F.; Tsai, Y.-J.; Weng, S.-M.; **Jan, J.-S.\*** "Antioxidant Activity of Linear and Star-shaped Polypeptides Modified with Dopamine and Glutathione" *Euro. Polym. J.*, 152, 110497, (2021).
- (4) Chen, Y.-F.; Chang, C.-H.; Hsu, M.-W.; Chang, H.-M.; Chen, Y.-C.; Jiang, Y.-S.; **Jan, J.-S.\*** Peptide Fibrillar Assemblies Exhibit Membranolytic Effects and Anti-Metastatic Activity on Lung Cancer Cells. *Biomacromolecules*, 14, 3836-3846, (2020).
- (5) Pham, T.-N.; Jiang, Y.-S.; Su, C.-F.; **Jan, J.-S.\*** *In situ* formation of silver nanoparticles-contained gelatin-PEG-dopamine hydrogels via enzymatic cross-linking reaction for improved antibacterial activities. *Int. J. Biol. Macromol.*, 146, 1050–1059, (2020).
- (6) Chen, Y.-F.; Lai, Y.-D.; Chang, C.-H.; Tsai, Y.-C.; **Jan, J.-S.\*** Star-Shaped Polypeptides Exhibit Potent Antibacterial Activities. *Nanoscale*, 11, 11696–11708, (2019).
- (7) Hou, S.-S.; Fan, N.-S.; Tseng, Y.-C.; **Jan, J.-S.\*** Self-Assembly and Hydrogelation of Coil-Sheet Poly(L-Lysine)-*block*-Poly(L-Threonine) Block Copolypeptides. *Macromolecules*, 51, 8054–8063, (2018).
- (8) Tsai, Y.-L.; Tseng, Y.-C.; Chen, Y.-M.; Wen, T.-C.; **Jan, J.-S.\*** Zwitterionic Polypeptides Bearing Carboxybetaine and Sulfobetaine: Synthesis, Self-Assembly, and Their Interactions with Proteins. *Polym. Chem.*, 9, 1178–1189, (2018).