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**Research interest:** Immunologic mechanism and translational medicine of severe cutaneous diseases (malignant melanoma, psoriasis and lupus erythematosus) and skin repair

Dr. Juan Tao is a Professor and Chairman of the department of dermatology of Wuhan Union Hospital, and the director of Hubei Engineering Research Center for Skin Repair and Theranostics. She has led six research programs of the National Natural Science Foundation of China and one New Century Talent Project from the Ministry of Education in China. She has published 64 peer-reviewed papers as the first or corresponding author, including five papers in academic journals such as *Angew Chem Int Ed*, *J Invest Dermatol*, *JAAD*, *BJD*, *Biomaterials*, and *Small*. She is a recipient of the first prize of the Hubei Provincial Science and Technology Progress Award (Ranked the first) and filed 21 invention patents in China, one of which one has been granted, and clinical transformation has been realized. She organized and participated in establishing eight experts' consensus/guidelines. Dr. Juan Tao has been invited as an editorial consultant of *Br J Dermatol*, deputy editor of the Chinese edition of *J Am Acad Dermatol*, and served as a reviewer for many domestic and international journals.

### Selected publications

1. Lan J#, Song Z#, Miao X, Li H, Li Y, Dong L, Yang J, An X, Zhang Y, Yang L, Zhou N, Yang L, Li J, Cao J, Wang J, **Tao J\***. Skin damage and the risk of infection among healthcare workers managing coronavirus disease-2019. *J Am Acad Dermatol*. 2020 Mar 11; DOI: 10.1016/j.jaad.2020. 03.014
2. **Tao J\***, Song Z, Yang L, Huang C, Feng A, Man X. Emergency Management for Preventing and Controlling Nosocomial Infection of 2019 Novel Coronavirus: Implications for the Dermatology Department. *Br J Dermatol*. 2020 Mar 5; DOI: 10.1111/bjd.19011
3. Lan J#, Wen J#, Cao S, Yin T, Jiang B, Lou Y, Zhu J, An X, Suo H, Li D, Zhang Y\*, **Tao J\***. The Diagnostic Accuracy of Dermoscopy and Reflectance Confocal Microscopy for Amelanotic /Hypomelanotic Melanoma: A Systematic Review and Meta-Analysis. *Br J Dermatol*. 2019 Nov 20; DOI: 10.1111/bjd.18722
4. Du H#, Liu P#, Zhu J, Lan J, Li Y, Zhang L, Zhu J\*, **Tao J\***. Hyaluronic Acid-Based Dissolving Microneedle Patch Loaded with Methotrexate for Improved Treatment of Psoriasis. *ACS Applied Materials & Interfaces*. 2019 Nov 20; 11(46):43588-43598.
5. Xu N#, Li J#, Gao Y#, Zhou N, Ma Q, Wu M, Zhang Y, Sun X, Xie J, Shen G, Yang M, Tu Q, Xu X, Zhu J\*, **Tao J\***. Apoptotic cell-mimicking gold nanocages loaded with LXR agonist for attenuating the progression of murine systemic lupus erythematosus. *Biomaterials*. 2019 Mar; 197:380-392
6. Liu Q#, Zhou Y#, Li M, Zhao L, Ren J, Li D, Tan Z, Wang K, Li H, Hussain M, Zhang L, Shen G, Zhu J\*, **Tao J\***. Polyethylenimine Hybrid Thin-Shell Hollow Mesoporous Silica Nanoparticles as Vaccine Self-Adjuvants for Cancer Immunotherapy. *ACS Appl Mater Interfaces*. 2019 Dec 26;11(51): 47798-47809.
7. Dong L#, Li Y, Li Z, Xu N, Liu P, Du H, Zhang Y, Huang Y, Zhu J, Ren G, Xie J, Wang K, Zhou Y, Shen C, Zhu J\*, **Tao J\***. Au Nanocage-Strengthened Dissolving Microneedles for Chemo Photothermal Combined Therapy of Superficial Skin Tumors. *ACS Appl Mater Interfaces*. 2018 Mar 21; 10(11): 9247-56.
8. Zhang Y#, Li J#, Zhou N#, Zhang Y, Wu M, Xu J, Shen C, An X, Shen G, Yang M, Zhang C, **Tao J\***. The Unknown Aspect of BAFF: Inducing IL-35 Production by a Novel CD5+CD1dhiFcγRIIbhi Regulatory B Cell Subset in Lupus. *J Invest Dermatol*. 2017 Dec;137(12):2532-2543.

9. Xie J #, Yang C, Liu Q, Li J, Liang R, Shen C, Zhang Y, Wang K, Liu L, Shezad K, Sullivan M, Xu Y, Shen G, **Tao J\***, Zhu J \*, Zhang Z \*. Encapsulation of Hydrophilic and Hydrophobic Peptides into Hollow Mesoporous Silica Nanoparticles for Enhancement of Antitumor Immune Response. *Small*. 2017 Oct;13(40).
10. Xu J#, Li J#, Yang Y, Wang K, Xu N, Li J, Liang R, Shen L, Xie X, **Tao J\***, Zhu J\*. Block Copolymer Capsules with Structure-Dependent Release Behavior. *Angew Chem Int Ed Engl*. 2016 Nov 14;55(47):14633-14637.