

Han Yang

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Education

Southern Medical University (SMU)

M.MedSc. in Plastic and Reconstructive Surgery (Top 2 in China)

Guangzhou, China

Sep. 2022 - Current

- Advisor: Prof. Feng Lu (World's Top 2% Scientists 2024)
- GPA: 3.5/4.0

Southern Medical University (SMU)

M.B.B.S. in Clinical Medicine (Top 0.48%, ESI Global Ranking)

Guangzhou, China

Sep. 2017 - Jun. 2022

- GPA: 3.78/5.0
- Rank: 24/337

Publications

1. **Han Yang#**, Susan Cheong#, Yunfan He, Feng Lu*. Mesenchymal stem cells and their extracellular vesicles for autoimmune-related fibrotic skin diseases. **Stem Cell Research & Therapy. IF=7.5, Q1. Published**
2. **Han Yang**, Yidan Xu, Sousan Cheong, Cuiying Xie, Yufan Zhu, Shujie Xu, Feng Lu, Yunfan He. Mobilization of subcutaneous fascia contributes to the vascularization and function of acellular adipose matrix via formation of vascular matrix complex. **Materials Today Bio. IF=8.7, Q1. Major Revision**
3. **Han Yang***, Minghao Su*, Zhimin Chen* et al., Jun Ouyang#, and Jingxing Dai#. Anatomic Measurement and Variability Analysis of the Anterior Talofibular Ligament and Calcaneofibular Ligament of the Ankle. **Orthopaedic Journal of Sports Medicine. IF=2.4, Q2. Published**
4. Sousan Cheong*, **Han Yang***, Choukuan Hao, Feng Lu#, Yunfan He#. Correction of infraorbital dark circles using autologous adipose-derived collagen. **Aesthetic Plastic Surgery. IF=2.4, Q2. Accept**
5. Yidan Xu*, **Han Yang***, Shujie Xu*, Yuchen Zhang, Jianhua Gao #, Yao Yao #. Therapeutic effect of prophylactic administration of synthetic tryptophan metabolites on silicone breast implant-induced Capsular contracture formation. **Plastic and Reconstructive Surgery. IF= 3.6, Q1. Under Review.**
6. Yufan Zhu, **Han Yang**, Meiqi Liu, Zhixin Xue, Haojing Tang, Xihang Chen, Yunjun Liao. Mesenchymal stem cells-derived extracellular vesicles for wound healing and skin regeneration: A systematic review and meta-analysis of preclinical studies. **Journal of Translational Medicine. IF=6.1, Q1. Accept**

Research Experience

The Subcutaneous Fascia-mediated Angiogenesis and Adipogenesis of Adipose Acellular Matrix.

Project Leader

(Major Revision)

Sep. 2022 - Current

- Proposed a method to produce an acellular matrix with more than 70% regeneration rate and very low immunogenicity.
- Employed in situ matrix-tracing, vessel-tracing, cell-tracing to investigate the vascularization process of acellular adipose matrix (AAM) implants in a murine model.
- Performed characterizing using HE, Sirius red, Immunofluorescent, SEM, Whole-mount staining.
- Used CurveAlign to extract the single-fiber structure information of the migrating fascia, including length, width, angle, alignment, and density.
- Employed bioinformatics to explore the collagen-related factors of fascia-mediated angiogenesis in acellular matrix.

The Mechanism of Extracellular Vesicles in Improving Skin Fibrosis and Regeneration

Project Leader

(Published)

Sep. 2022 - Aug. 2023

- Conducted a comprehensive literature review on the use of extracellular vesicles for autoimmune-related fibrotic skin diseases, and synthesized findings from over 200 peer-reviewed articles and research papers.
- Categorize autoimmune-related fibrotic skin diseases based on the nosogenesis and the lesion location.
- Complete literature collection, systematic classification, review writing, and figure drawing independently.

The Effect of Autologous Adipose-derived Collagen on Improving Infraorbital Dark Circles

Research Assistant

(Accepted)

Sep. 2023 - Sep. 2024

- Proposed a method to improve the adipogenesis of adipose collagen fragment
- Employed ultracentrifuge to extract the extracellular vesicles attached to ACF.
- Performed characterizing using Masson and immunofluorescent staining.

The Preventive Effect of Sodium Succinate on Foreign Body Reaction Encapsulation

Research Assistant

(Submitted for Publication)

Sep. 2023 - Sep. 2024

- Administered oral gavage to animals and performed implantation modeling using silicone materials.
- Conducted in vivo therapeutic efficacy evaluations, including histological assessments and comparisons of collagen composition types.
- Identified a dual-layer structure in the foreign body reaction capsule, consisting of a dense layer and a loose layer.

The Anatomical analysis of blood vessels in the Facial Danger Zones

Project Leader

(Finished)

Sep. 2022 - Mar. 2023

- Independently performed facial dissection on human specimens, including the dissection of facial nerves, facial muscles, and facial blood vessels.
- Measured the distances between the superior and inferior labial arteries and various landmarks of the lips.
- Classified the spatial distribution patterns of the superior and inferior labial arteries based on their distances from the vermilion border.
- Measured the coefficient of variation of superior and inferior labial arteries in Asian populations, exploring the relationship between the spatial distribution of labial arteries and the safety of soft tissue filler injections.

Selected Honors

2022-2024	Academic Excellence Scholarship for postgraduate (Top prize ×2)
2020	National College Student Business Plan Competition "Challenge Cup" (The third prize)
2019	Excellent Project Leader of Human Anatomy Department
2017-2022	Excellent Students of Southern Medical University (×3)
2017-2022	Academic Excellence Scholarship (Top prize ×2, the second prize ×1)

Certificate and Internship

Medical Practitioner License (China)

Sep. 2023

Intern Physician

Sep. 2021 - Jan. 2022

Nanfang Hospital of Southern Medical University - Department of Plastic and Reconstructive Surgery

Languages & Skills

- **Languages:** Chinese (native), English (IELTS: 6.5)
- **Wet Lab Skills**
 - Cell Culture:** Maintenance and differentiation of primary cells and cell lines.
 - Animal Modeling:** Expertise in animal transplant models, including silicone, ePTFE membranes, autologous fat; proficient in animal heart perfusion for tissue collection.
 - Histology:** Immunohistochemistry (IHC), immunofluorescence (IF), and various tissue staining techniques.

Biomaterials Preparation: Decellularized matrix and adipose-derived materials, such as ACF.

Extracellular Vesicle Isolation: Techniques for extraction and purification.

Flow Cytometry: Cell sorting and analysis.

In Vivo Imaging: Techniques for live animal imaging and monitoring.

Dry Lab Skills

R Programming: Data analysis including PCA, correlation studies, and river plots.

Single-Cell RNA-Seq Analysis: Preliminary processing and interpretation of single-cell data.