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Academic Experience

2022- Assistant Professor, Department of Dermatology, Northwestern University
2022- Team Scientist in Bioinformatics, Department of Dermatology, Northwestern University
2021-2022 Bioinformatician, Center for Research Informatics, the University of Chicago
2020-2021 Postdoctoral fellow, Department of Medicine, Northwestern University

Other Professional Experience

2022- Editorial Board, Journal of the American Medical Informatics Association
2022- Member, Northwestern University Clinical and Translational Sciences Institute
2022- Associate Member, The Robert H. Lurie Comprehensive Cancer Center
2022- Member, Skin Biology and Diseases Resource-based Center
2022- Member, Institute for Public Health and Medicine - Center for Epidemiology and Population Health
2022- Member, Northwestern University Center for Human Immunobiology
2020-2021 Student Editorial Board, Journal of the American Medical Informatics Association
Various Reviewer for Journal of the American Medical Informatics Association, Journal of Medical Internet Research, Journal of Biomedical Informatics, Genome Biology, JMIR Public Health and Surveillance, JMIR Medical Informatics, JMIR Mhealth And Uhealth, JMIR Research Protocols

Academic Background

2015-2020 Ph.D. Biomedical Informatics, Northwestern University
2018-2020 M.S. Statistics, Northwestern University
2016-2020 M.S. Clinical Investigation, Northwestern University
2011-2015 B.S. Chemical Biology (Minor: Mathematics), University of California Berkeley

Professional Societies

American Medical Informatics Association
Society of Investigative Dermatology
American Heart Association
American Statistical Society

Honors, Prizes and Award

2023 International Society of Investigative Dermatology Traveling Grant
2021 Certificate of Excellence, Journal of the American Medical Informatics Association
2020 American Heart Association, Postdoctoral fellowship
2017-2020 Northwestern University Pulmonary T32 Fellowship
2016, 2018 Northwestern University Conference Travel Grant
2014 Harvard University FAS center for Systems Biology Summer Fellowship
2014 University of California Berkeley Bio-Manufacturing to Market Program Fellowship
2013 University of California Berkeley Biology Scholars Program Summer Fellowship
2013 University of California Berkeley QB3 Training in Bioengineering

Selected Publication

1. Watanabe, S., Markov, N. S., Lu, Z.,..., **Ren,Z.**, ... & Misharin, A. V. (2021). Resetting proteostasis with ISRIB promotes epithelial differentiation to attenuate pulmonary fibrosis. *Proceedings of the National Academy of Sciences*, 118(20), e2101100118.

2. **Ren, Z.,** & Silverberg, J. I. (2021). Burden, risk factors, and infectious complications of cellulitis and erysipelas in US adults and children in the emergency department setting. *Journal of the American Academy of Dermatology*, 84(5), 1496-1503.
3. Kurihara, C., Lecuona, E., ..., **Ren, Z.,** ... & Bharat, A. (2021). Crosstalk between nonclassical monocytes and alveolar macrophages mediates transplant ischemia-reperfusion injury through classical monocyte recruitment. *JCI insight*, 6(6).
- McQuattie-Pimentel, A. C. *, **Ren, Z. ***, Joshi, N., Watanabe, S., Stoeger, T., Chi, M., ... & Budinger, G. S. (2021). The lung microenvironment shapes a dysfunctional response of alveolar macrophages in aging. *The Journal of clinical investigation*, 131(4).
4. Singh, P. *, **Ren, Z. ***, & Silverberg, J. I. (2020). Weekend Emergency and Outpatient Visits for Atopic Dermatitis in the United States. *Dermatitis*, 31(5), e57-e58.
- Akbarpour, M., Lecuona, E., ..., **Ren, Z.,** ... & Bharat, A. (2020). Residual endotoxin induces primary graft dysfunction through ischemia/reperfusion-primed alveolar macrophages. *The Journal of clinical investigation*, 130(8), 4456-4469.
5. **Ren, Z.,** & Silverberg, J. I. (2020). Association of atopic dermatitis with bacterial, fungal, viral, and sexually transmitted skin infections. *Dermatitis*, 31(2), 157-164.
6. **Ren, Z.,** Laumann, A. E., & Silverberg, J. I. (2019). Association of dermatomyositis with systemic and opportunistic infections in the United States. *Archives of dermatological research*, 311(5), 377-387.
7. Walter, J. M. *, **Ren, Z. ***, Yacoub, T., Reyfman, P. A., Shah, R. D., Abdala-Valencia, H., ... & McQuattie-Pimentel, A. C. (2019). Multidimensional Assessment of the Host Response in Mechanically Ventilated Patients with Suspected Pneumonia. *American journal of respiratory and critical care medicine*, (ja). PMID: 30398927.
8. Reyfman, P. A. *, Walter, J. M. *, Joshi, N. *, ..., **Ren, Z.,** ..., & Verma, R. (2019). Single-Cell Transcriptomic Analysis of Human Lung Provides Insights into the Pathobiology of Pulmonary Fibrosis. *American journal of respiratory and critical care medicine*, (ja). PMID: 30554520.
9. **Ren, Z.,** Hsu, D., Brieva, J., & Silverberg, J. I. (2019). Association between climate, pollution and hospitalization for pemphigus in the USA. *Clinical and experimental dermatology*, 44(2), 135-143.
10. **Ren, Z.,** Narla, S., Hsu, D. Y., & Silverberg, J. I. (2018). Association of serious infections with pemphigus and pemphigoid: analysis of the Nationwide Inpatient Sample. *Journal of the European Academy of Dermatology and Venereology*, 32(10), 1768-1776
11. **Ren, Z.,** Hsu, D. Y., Brieva, J., Silverberg, N. B., Langan, S. M., & Silverberg, J. I. (2017). Hospitalization, inpatient burden and comorbidities associated with bullous pemphigoid in the USA. *British Journal of Dermatology*, 176(1), 87-99. PMID: 27343837.
12. **Ren, Z.,** Hsu, D. Y., Silverberg, N. B., & Silverberg, J. I. (2017). The Inpatient Burden of Autoimmune Blistering Disease in US Children: Analysis of Nationwide Inpatient Sample Data. *American journal of clinical dermatology*, 18(2), 287-297. PMID: 28211027.

*These authors contributed equally

Teaching and Mentorship

- 2023 Bioinformatics Seminars at Northwestern University
- 2022 Mentoring undergraduate student at the University of Chicago
- 2020 Mentoring summer students at Northwestern University
- 2018 Mentoring summer students at Northwestern University
- 2017 Teaching assistant to an introductory quantitative analysis course for Ph.D. students at Northwestern University
- 2017 Teaching assistant to an R Workshop Teaching Assistant