

**William R. Swindell, DO, PhD**

Assistant Professor

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**EDUCATION**

- 8/1998 – 8/2000 Bachelor of Science (BS)  
Major: Biology, Minor: Chemistry. *Magna cum laude*  
Bowling Green State University, Bowling Green, OH
- 8/2000 – 8/2005 Doctor of Philosophy (PhD)  
Biological Sciences. Specialization: Genetics  
Bowling Green State University, Bowling Green, OH
- 8/2005 – 5/2007 Master of Science (MS)  
Statistics. Specialization: Bioinformatics  
Michigan State University, East Lansing, MI
- 7/2015 – 5/2019 Doctor of Osteopathic Medicine (DO)  
Ohio University Heritage College, Athens, OH

**POSTGRADUATE TRAINING**

- 5/2007 – 6/2010 Research Fellowship  
University of Michigan School of Medicine, Ann Arbor, MI  
Departments of Pathology and Dermatology  
Mentors: Dr. Richard A. Miller, MD, PhD, Dr. James T. Elder, MD, PhD, Dr. Johann E. Gudjonsson, MD, PhD.
- 6/2010 – 5/2012 Research Fellowship  
Brigham & Women's Hospital, Division of Genetics, Boston, MA  
Harvard Medical School, Department of Genetics, Boston, MA  
Mentors: Dr. Martha L. Bulyk, PhD, Dr. Norbert Perrimon, PhD
- 6/2019 – 6/2022 Internal Medicine Residency  
The Jewish Hospital-Mercy Health, Cincinnati, OH.

**ACADEMIC APPOINTMENTS**

- 5/2012 – 7/2015 Research Investigator Faculty  
University of Michigan School of Medicine, Ann Arbor, MI  
Department of Dermatology
- 07/2022 – Present Assistant Professor  
UT Southwestern Medical Center, Dallas, TX  
Department of Internal Medicine

## **CURRENT LICENSURE & BOARD CERTIFICATION**

- ▶ American Board of Internal Medicine (2022 - present).
- ▶ State of Texas Medical License (2022 - present).

## **PROFESSIONAL MEMBERSHIPS**

- ▶ American College of Physicians (ACP). June 2018 – Present.
- ▶ Texas Medical Association (TMA). October 2022 – Present.
- ▶ Dallas County Medical Society (DCMS). October 2022 – Present.

## **HONORS & AWARDS**

- ▶ Elected to the *Phi Beta Kappa* undergraduate honor society (08/2000)
- ▶ Excellence in teaching award. Dept. of Biological Sciences, Bowling Green State University (11/16/2002).
- ▶ Linda and Larry Oman Graduate Scholarship (\$700). Dept. of Biological Sciences, Bowling Green State University (05/2003).
- ▶ Outstanding graduate student teaching award. Dept. of Biological Sciences, Bowling Green State University (12/17/2004).
- ▶ Graduate dissertation non-service fellowship. Dept. Biological Sciences, Bowling Green State University (08/2004).
- ▶ Graduate student award for interdisciplinary bioinformatics research (\$100). Dept. of Probability and Statistics, Michigan State University (06/2006).
- ▶ Distinguished Dissertation Award (\$500). Presented to the best dissertation submitted to the Bowling Green State University Graduate College in 2005-2006 (awarded 05/2007).
- ▶ Ruth L. Kirschstein National Research Service Award (T32 AG000114-24). University of Michigan Medical School, Dept. of Pathology (08/2007).
- ▶ Ruth L. Kirschstein National Research Service Award (T32 AR007197-32). University of Michigan Medical School, Dept. of Dermatology (08/2009).
- ▶ Poster competition award, 2nd place (\$500). Ohio Osteopathic Symposium. Biomedical/clinical science category. Columbus, OH (04/27/2019).
- ▶ Outstanding research award. Ohio University Heritage College commencement awards ceremony. Athens, OH (05/10/2019).
- ▶ Biomedical science award. Ohio University Heritage College commencement awards ceremony. Athens, OH (05/10/2019).

## **TEACHING ACTIVITIES**

### ***Courses Taught***

- ▶ Environment of Life (BIO 101). Bowling Green State University, Department of Biological Sciences. Laboratory instructor (01/2001 – 05/2001).

- ▶ Molecular methods in Ecology & Evolution (BIO 582). Bowling Green State University, Department of Biological Sciences. Laboratory instructor (01/2001 – 05/2001)
- ▶ Human anatomy & Physiology (BIO 331). Bowling Green State University, Department of Biological Sciences. Laboratory instructor (08/2001 – 08/2004).
- ▶ Statistical Methods (STT 201). Michigan State University, Department of Statistics and Probability. Instructor (08/2005 – 05/2007).

### ***Clinical Supervision***

- ▶ Medicine wards teaching attending. 10/10/24 – 10/16/24<sup>†</sup>
  - ▶ Medicine wards teaching attending. 09/26/24 – 10/02/24<sup>†</sup>
  - ▶ Medicine wards teaching attending. 09/07/24 – 09/20/24<sup>†</sup>
  - ▶ Medicine wards teaching attending. 11/04/23 - 11/17/23<sup>†</sup>
  - ▶ Medicine wards sub-internship preceptor. 11/04/23 - 11/17/23<sup>†</sup>
- <sup>†</sup>Clements University Hospital (Dallas, TX)

### ***Education Administration***

- ▶ Core Faculty interviewer. UT Southwestern Internal Medicine residency program. 10/2023-02/2024.
- ▶ Core Faculty interviewer. UT Southwestern Internal Medicine residency program. 10/2024-02/2025.

### **RESEARCH INTERESTS**

- ▶ Bioinformatics and health data analytics.
- ▶ Inflammatory mechanisms of aging and disease.
- ▶ Amyotrophic lateral sclerosis.

### **GRANT SUPPORT**

01/01/2013 – 12/31/2014

American Skin Association Carson Family Research Scholar Award

"Dissection of inflammatory- and cytokine-driven shifts in gene expression in psoriasis lesions" (Principal Investigator, \$150,000 total costs)

07/15/2004 – 07/14/2005

National Science Foundation Dissertation Improvement Grant (DEB-0407891)

"Selection and Inbreeding Depression: Effects of Inbreeding Rate and Inbreeding Environment" (Co-Principal Investigator, \$11,970 total costs)

### **EDITORIAL POSITIONS & PEER-REVIEW SERVICE**

Frontiers in Endocrinology, Review Editor (07/2015 - Present)

Frontiers in Endocrinology, Associate Editor (06/2023 - Present)

Frontiers in Genetics, Review Editor (08/2011 - 04/2022)  
Frontiers in Genetics, Associate Editor (04/2022 - Present)

*Ad hoc* Reviewer (No. reviews completed):

- ▶ Acta Biomaterialia (2)
- ▶ Ageing Research Reviews (4)
- ▶ Aging Cell (10)
- ▶ Animal Conservation (2)
- ▶ Annals of the Rheumatic Diseases (2)
- ▶ Archives of Dermatological Research (2)
- ▶ Bioinformatics (2)
- ▶ Biological Aging: Methods and Protocols, Second Edition (1)
- ▶ BMC Bioinformatics (1)
- ▶ BMC Genomics (6)
- ▶ BMC Systems Biology (4)
- ▶ British Journal of Dermatology (5)
- ▶ British Journal of Nutrition (1)
- ▶ Clinical, Cosmetic and Investigational Dermatology (1)
- ▶ Clinical Interventions in Aging (1)
- ▶ Communications Biology (2)
- ▶ Current Medicinal Chemistry (2)
- ▶ Diabetes, Metabolic Syndrome and Obesity (1)
- ▶ Drug Discovery Today (1)
- ▶ Evidence-Based Complementary and Alternative Medicine (2)
- ▶ Evolution (1)
- ▶ Evolutionary Bioinformatics (1)
- ▶ Experimental Dermatology (1)
- ▶ Experimental Gerontology (5)
- ▶ Free Radical Biology & Medicine (1)
- ▶ Frontiers in Endocrinology (4)
- ▶ Frontiers in Genetics (1)
- ▶ Frontiers in Physiology (12)
- ▶ Genetica (1)
- ▶ Genetics (2)
- ▶ Genome Biology (2)
- ▶ Indian Journal of Dermatology, Venereology, and Leprology (1)
- ▶ International Journal of Biological Sciences (1)
- ▶ International Journal of Cosmetic Science (2)
- ▶ International Journal of Molecular Science (1)
- ▶ Ireland HSC R&D Division grant review (1)
- ▶ Journal of the American Aging Association (AGE) (2)
- ▶ Journal of Allergy and Clinical Immunology (2)
- ▶ Journal of Clinical Bioinformatics (1)
- ▶ Journal of Dermatology (1)
- ▶ Journal of Endocrinology (2)
- ▶ Journal of Feline Medicine and Surgery (1)

- ▶ Journal of Gerontology Biological Sciences (5)
- ▶ Journal of Investigative Dermatology (26)
- ▶ Journal of Taibah University for Science (3)
- ▶ Journal of Tissue Engineering and Regenerative Medicine (2)
- ▶ Mechanisms of Ageing and Development (5)
- ▶ Metabolites (2)
- ▶ Molecular Genetics and Metabolism (1)
- ▶ National Science Foundation (1)
- ▶ Nature Communications (10)
- ▶ Neurobiology of Aging (1)
- ▶ Open Access Emergency Medicine (1)
- ▶ Plant Biology (1)
- ▶ Plant Science (1)
- ▶ PLoS ONE (9)
- ▶ Poland National Science Centre OPUS (1)
- ▶ Proceedings of the National Academy of Sciences (1)
- ▶ Psoriasis: Targets and Therapy (2)
- ▶ Rejuvenation Research (2)
- ▶ Science Translational Medicine (1)
- ▶ Scientific Reports (1)

## **ORAL PRESENTATIONS**

### *Reverse Chronological Order*

- (8) A simple ABCD score to stratify patients with respect to the probability of survival following in-hospital CPR. Bon Secours Mercy Health Graduate Medical Education Research Symposium. Virtual presentation. September 27, 2021.
- (7) Expression profiling of psoriasis lesions: Disease mechanisms, clinical biomarkers & GWAS interpretation. Scleroderma Lecture Series. University of Texas Health Science Center. Houston, Texas. March 13, 2020.
- (6) Imiquimod has strain-dependent effects in mice and does not uniquely model human psoriasis. Society for Investigative Dermatology annual meeting. Portland, Oregon. April 28, 2017.
- (5) Psoriasis drug development and GWAS interpretation through *in silico* analysis of transcription factor binding sites. Society for Investigative Dermatology annual meeting, Plenary session. Atlanta, Georgia. May 9, 2015.
- (4) Transcription Factors associated with Insulin Stimulation in Drosophila S2 Cells. Brigham and Women's Hospital, Division of Genetics Research Seminar. Boston, MA. October 4, 2011.

- (3) Comparative analysis of microarray data and common responses to caloric restriction. Which genes are most important? San Antonio Nathan Shock Center Conference on Aging. Bandera, Texas. October 25, 2008.
- (2) How long will my mouse live? Machine learning approaches for prediction of mouse lifespan. University of Michigan Geriatrics Symposium, Ann Arbor, Michigan. April 18, 2008.
- (1) Inbreeding effects and the selection response of bottlenecked populations. Midwest Ecology and Evolution Conference. Bowling Green, Ohio. May 10, 2002.

## **BIBLIOGRAPHY**

### *Peer-reviewed Journal Publications (Reverse Chronological Order)*

- (104) **Swindell WR**. 2024. Meta-analysis of differential gene expression in lower motor neurons isolated by laser capture microdissection from post-mortem ALS spinal cords. *Frontiers in Genetics* 15:1385114.
- (103) Xu B, Musai J, Tan YS, Hile GA, **Swindell WR**, Klein B, Qin JT, Sarkar MK, Gudjonsson JE, Kahlenberg JM. 2024. A Critical Role for IFN- $\beta$  Signaling for IFN- $\kappa$  Induction in Keratinocytes. *Frontiers in Lupus* 2:1359714.
- (102) Jiang Y, Gruszka D, Zeng C, **Swindell WR**, Gaskill C, Sorensen C, Brown W, Gangwar RS, Tsoi LC, Webster J, Sigurdarsottir SL, Sarkar MK, Uppala R, Kidder A, Xing X, Plazyo O, Xing E, Billi AC, Maverakis E, Kahlenberg JM, Gudjonsson JE, Ward NL. 2024. Suppression of TCF4 promotes a ZC3H12A-mediated self-sustaining inflammatory feedback cycle involving IL-17RA/IL-17RE epidermal signaling. *JCI Insight* 9(8): e172764.
- (101) Uppala R, Sarkar MK, Young K, Ma F, Vemulapalli P, Wasikowski R, Plazyo O, **Swindell WR**, Maverakis E, Gharaee-Kermani M, Billi AC, Tsoi LC, Kahlenberg MJ, Gudjonsson JE. 2024. HERC6 regulates STING activity in a sex-biased manner through modulation of LATS2/VGLL3 Hippo signaling. *iScience* 27(2):108986.
- (100) Shao S, Sun Z, Chu M, Chen J, Cao T, **Swindell WR**, Bai Y, Li Q, Ma J, Zhu Z, Schuler A, Helfrich Y, Billi AC, Li Z, Hao J, Xiao C, Dang E, Gudjonsson JE, Wang G. 2024. Formylpeptide receptor 1 contributes to epidermal barrier dysfunction-induced skin inflammation through NOD-like receptor C4-dependent keratinocyte activation. *British Journal of Dermatology* 190(4):536-548.
- (99) Meyer TA, **Swindell WR**, Chaudhuri RK. 2023. Acetyl zingerone: A photostable multifunctional skincare ingredient that combats features of intrinsic and extrinsic skin aging. *Antioxidants* 12: 1168.

- (98) Wiedemann J, Billi AC, Bocci F, Kashgari G, Xing E, Tsoi LC, Tang L, **Swindell WR**, Wasikowski R, Xing X, Ma F, Gharaee-Kermani M, Kahlenberg JM, Harms PW, Maverakis E, Nie Q, Gudjonsson JE, Andersen B. 2023. Differential cell composition and split epidermal differentiation in human palm, sole, and hip skin. *Cell Reports* 42: 111994.
- (97) **Swindell WR**, Bojanowski K, Singh P, Randhawa M, Chaudhuri RK. 2023. Bakuchiol and ethyl (linoleate/oleate) synergistically modulate endocannabinoid tone in keratinocytes and repress inflammatory pathway mRNAs. *JID Innovations* 3:100178.
- (96) Parish AJ, **Swindell WR**. 2022. Metformin has heterogeneous effects on model organism lifespans and is beneficial when started at an early age in *Caenorhabditis elegans*: a systematic review and meta-analysis. *Aging Cell* 21(12): e13733.
- (95) **Swindell WR**, Bojanowski K, Chaudhuri RK. 2022. Isosorbide fatty acid diesters have synergistic anti-inflammatory effects in cytokine-induced tissue culture models of atopic dermatitis. *International Journal of Molecular Sciences* 23(22): 14307.
- (94) **Swindell WR**, Bojanowski K, Chaudhuri RK. 2022. Transcriptomic analysis of fumarate compounds identifies unique effects of isosorbide di-(methyl fumarate) on NRF2, NF-kappaB and IRF1 pathway genes. *Pharmaceuticals (Basel)* 15(4): 461.
- (93) Godsel LM, Roth-Carter QR, Koetsier JL, Tsoi LC, Huffine AL, Broussard JA, Fitz GN, Lloyd SM, Kweon J, Burks HE, Hegazy M, Amagai S, Harms PW, Xing X, Kirma J, Johnson JL, Urciuoli G, Doglio LT, **Swindell WR**, Awatramani R, Sprecher E, Bao X, Cohen-Barak E, Missero C, Gudjonsson JE, Green KJ. 2022. Translational implications of Th17-skewed inflammation due to genetic deficiency of a cadherin stress sensor. *Journal of Clinical Investigation* 132(3):e144363.
- (92) Skaug B, Lyons MA, **Swindell WR**, Salazar GA, Wu M, Tran T, Charles J, Vershel CP, Mayes MD, Assassi S. 2022. Large-scale analysis of longitudinal skin gene expression in systemic sclerosis reveals relationships of immune cell and fibroblast activity with skin thickness and a trend towards normalization over time. *Annals of the Rheumatic Diseases* 81(4):516-523.
- (91) Shao S, Chen J, **Swindell WR**, Tsoi LC, Xing X, Ma F, Uppala R, Sarkar MK, Plazyo O, Billi AC, Wasikowski R, Smith KM, Honore P, Scott VE, Maverakis E, Kahlenberg JM, Wang G, Ward NL, Harms PW, Gudjonsson JE. 2021. Phospholipase A2 enzymes represent a shared pathogenic pathway in psoriasis and pityriasis rubra pilaris. *JCI Insight* 6(20): e151911.

- (90) **Swindell WR**, Randhawa M, Quijas G, Bojanowski K, Chaudhuri RK. 2021. Tetrahexyldecyl ascorbate (THDC) degrades rapidly under oxidative stress but can be stabilized by acetyl zingerone to enhance collagen production and antioxidant effects. *International Journal of Molecular Sciences* 22(16): 8756.
- (89) Bojanowski K, Ibeji CU, Singh P, **Swindell WR**, Chaudhuri RK. 2021. A sensitization-free dimethyl fumarate (DMF) pro-drug, isosorbide di-(methyl fumarate) (IDMF), provides a topical treatment candidate for psoriasis. *JID Innovations* 1(4):100040.
- (88) Shao S, Tsoi LC, **Swindell WR**, Chen J, Uppala R, Billi AC, Xing X, Zeng C, Sarkar MK, Wasikowski R, Jiang Y, Kirma J, Sun J, Plazyo O, Wang G, Harms PW, Voorhees JJ, Ward N, Ma F, Pellegrini M, Merleev A, Perez White B, Modlin RL, Andersen B, Maverakis E, Weidinger S, Kahlenberg JM, Gudjonsson JE. 2021. IRAK2 has a critical role in promoting feed-forward amplification of epidermal inflammatory responses. *Journal of Investigative Dermatology* 141(10): 2436-2448.
- (87) Bojanowski K, **Swindell WR**, Cantor S, Chaudhuri RK. 2021. Isosorbide di-(linoleate/oleate) stimulates pro-differentiation gene expression to restore the epidermal barrier and improve skin hydration. *Journal of Investigative Dermatology* 141(6):1416-1427.
- (86) **Swindell WR**, Gibson CG. 2021. A simple ABCD score to stratify patients with respect to the probability of survival following in-hospital cardiopulmonary resuscitation. *Journal of Community Hospital Internal Medicine Perspectives* 11(3): 334-342.
- (85) **Swindell WR**, Bojanowski K, Chaudhuri RK. 2020. A standardized Terminalia chebula fruit extract alters dermal and epidermal gene expression to influence skin architecture and barrier formation. *The European Journal of Dermatology* 30(5): 469-492.
- (84) **Swindell WR**, Bojanowski K, Chaudhuri RK. 2020. A novel fumarate, isosorbide di-(methyl fumarate) (IDMF), replicates astrocyte transcriptome responses to dimethyl fumarate (DMF) but specifically down-regulates genes linked to a reactive phenotype. *Biochemical and Biophysical Research Communications* 532(3): 475-481.
- (83) Billi AC, Ludwig JE, Fritz Y, Rozic R, **Swindell WR**, Tsoi LC, Gruzka D, Abdollahi-Roodsaz S, Xing X, Diaconu D, Uppala R, Camhi MI, Klenotic PA, Sarkar MK, Husni ME, Scher JU, McDonald CM, Kahlenberg JM, Midura RJ, Gudjonsson JE, Ward NL. 2020. KLK6 expression in skin induces PAR1-mediated psoriasiform dermatitis and inflammatory joint disease. *Journal of Clinical Investigation* 130(6):3151-3157.



- (82) Tsoi LC, Stölzl D, Wehkamp U, Sun J, Gerdes S, Sarkar MK, Hübenthal M, Zeng C, Rodriguez E, Uppala R, Xing X, Billi AC, **Swindell WR**, Shefler A, Chen J, Patrick MT, Harms PW, Kahlenberg JM, Perez White BE, Maverakis E, Gudjonsson JE, Weidinger S. 2020. Progression of acute-to-chronic atopic dermatitis is associated with quantitative rather than qualitative changes in cytokine responses. *Journal of Allergy and Clinical Immunology* 145(5):1406-1415.
- (81) Gibson CG, **Swindell WR**, Strickland B, Ott SJ, Rosenberg IL. 2020. Frequency and outcomes of venous thrombus embolism in hospitalized patients with Behçet's disease. *International Journal of Clinical Rheumatology* 15(3): 67-72.
- (80) Hoffman JM, Poonawalla A, Icyuz M, **Swindell WR**, Wilson L, Barnes S, Sun LY. 2020. Transcriptomic and metabolomic profiling of long-lived growth hormone releasing hormone knock-out mice: Evidence for altered mitochondrial function and amino acid metabolism. *Aging (Albany NY)* 12(4):3473-3485.
- (79) Skaug B, Khanna D, **Swindell WR**, Hinchcliff M, Frech TM, Steen VD, Hant NF, Gordon JK, Shah AA, Zhu L, Zheng WJ, Browning JL, Barron AMS, Wu M, Visvanathan S, Baum P, Franks JM, Whitfield ML, Shanmugam VK, Domsic RT, Castelino FV, Bernstein EJ, Wareing N, Lyons MA, Ying J, Charles J, Mayes MD, PRESS investigators, Assassi S. 2020. Global skin gene expression profile of early diffuse cutaneous systemic sclerosis shows a prominent innate and adaptive inflammatory profile. *Annals of the Rheumatic Diseases* 79(3):379-386.
- (78) **Swindell WR**, Bojanowski K, Chaudhuri RK. 2020. A zingerone analog, acetyl zingerone, bolsters matrisome synthesis, inhibits MMPs, and represses IL-17A target gene expression. *Journal of Investigative Dermatology* 140(3):602-614.
- (77) **Swindell WR**, Gau JT. 2019. Pyoderma gangrenosum-like lesion in an older adult: A case report and literature review. *Journal of the American Osteopathic Association* 119(10): 700-703.
- (76) **Swindell WR**, Kruse CPS, List EO, Berryman DE, Kopchick JJ. 2019. ALS blood expression profiling identifies new biomarkers, patient subgroups, and evidence for neutrophilia and hypoxia. *Journal of Translational Medicine* 17(1):170.
- (75) Yu J, Zhu H, Taheri S, Mondy W, Kirstein C, **Swindell WR**, Ko D, Kindy MS. 2019. GM6 attenuates Alzheimer's disease pathology in APP mice. *Molecular Neurobiology* 56(9):6386-6396.
- (74) Tsoi LC, Rodriguez E, Degenhardt F, Baurecht H, Wehkamp U, Volks N, Szymczak S, **Swindell WR**, Sarkar M, Raja K, Patrick M, Gao Y, Uppala R, Perez-White BE, Getsios S, Harms P, Maverakis E, Elder JT, Franke A, Gudjonsson JE, Weidinger S. 2019. Atopic dermatitis is an IL-13 dominant

- disease with greater molecular heterogeneity compared to psoriasis. *Journal of Investigative Dermatology* 139(7):1480-1489.
- (73) **Swindell WR**, Bojanowski K, Kindy MS, Chau RMW, Ko D. 2018. GM604 regulates developmental neurogenesis pathways and the expression of genes associated with amyotrophic lateral sclerosis. *Translational Neurodegeneration* 7:30.
- (72) Selman C, **Swindell WR**. 2018. Putting a strain on diversity. *EMBO Journal* 37(22): e100862.
- (71) Sarkar MK, Hile GA, Tsoi LC, Xing X, Liu J, Liang Y, Berthier CC, **Swindell WR**, Patrick MT, Shao S, Tsou PS, Uppala R, Beamer MA, Srivastava A, Bielas SL, Harms PW, Getsios S, Elder JT, Voorhees JJ, Gudjonsson JE, Kahlenberg JM. 2018. Photosensitivity and type I IFN responses in cutaneous lupus are driven by epidermal derived interferon kappa. *Annals of the Rheumatic Diseases* 77(11): 1653-1664.
- (70) **Swindell WR**, List EO, Berryman DE, Kopchick JJ. 2018. Transcriptional profiling identifies strain-specific effects of caloric restriction and opposite responses in human and mouse white adipose tissue. *Aging (Albany NY)* 10(4): 701-746.
- (69) **Swindell WR**, Beamer MA, Sarkar MK, Loftus S, Fullmer J, Xing X, Ward NL, Tsoi LC, Kahlenberg MJ, Liang Y, Gudjonsson JE. 2018. RNA-seq analysis of IL-1B and IL-36 responses in epidermal keratinocytes identifies a shared MyD88-dependent gene signature. *Frontiers in Immunology* 9:80.
- (68) **Swindell WR**, Sarkar MK, Liang Y, Xing X, Baliwag J, Elder JT, Johnston A, Ward NL, Gudjonsson JE. 2017. RNA-seq identifies a diminished differentiation gene signature in primary monolayer keratinocytes grown from lesional and uninvolved psoriatic skin. *Scientific Reports* 7(1):18045.
- (67) Mehta NN, Teague H, **Swindell WR**, Baumer Y, Ward NL, Xing X, Baugous B, Johnston A, Joshi AA, Silverman J, Barnes DH, Wolterink L, Nair RP, Stuart PE, Playford M, Voorhees JJ, Sarkar MK, Elder JT, Gallagher K, Ganesh SK, Gudjonsson JE. 2017. IFN- $\gamma$  and TNF- $\alpha$  synergism may provide a link between psoriasis and inflammatory atherogenesis. *Scientific Reports* 7(1):13831.
- (66) **Swindell WR**. 2017. Rapamycin in mice. *Aging (Albany NY)* 9(9):1941-1942.
- (65) Sarkar MK, Kaplan N, Tsoi LC, Xing X, Liang Y, **Swindell WR**, Hoover P, Aravind M, Baida G, Clark M, Voorhees JJ, Nair RP, Elder JT, Budinova I, Getsios S, Gudjonsson JE. 2017. Endogenous glucocorticoid deficiency in psoriasis promotes inflammation and abnormal differentiation. *Journal of Investigative Dermatology* 137(7):1474-1483.

- (64) Lambert S, **Swindell WR**, Tsoi LC, Stoll SW, Elder JT. 2017. Dual role of Act1 in keratinocyte differentiation and host defense: TRAF3IP2 silencing alters keratinocyte differentiation while inhibiting IL-17 responses. *Journal of Investigative Dermatology* 137(7):1501-1511.
- (63) **Swindell WR**. 2017. Meta-analysis of 29 experiments evaluating the effects of rapamycin on lifespan in the laboratory mouse. *Journal of Gerontology Biological Sciences* 72(8):1024-1032.
- (62) Liang Y, Xing X, Beamer MA, **Swindell WR**, Sarkar MK, Wolterink L, Voorhees JJ, Kahlenberg JM, Harms PW, Johnston A, Gudjonsson JE. 2017. Six-transmembrane epithelial antigens of the prostate comprise a novel inflammatory nexus in patients with pustular skin disorders. *Journal of Allergy and Clinical Immunology* 139(4):1217-1227.
- (61) Ma S, Gobis K, **Swindell WR**, Chaudhuri R, Bojanowski R, Bojanowski K. 2017. Synthesis and activity of the salicylic acid ester of bakuchiol in psoriasis-surrogate keratinocytes and skin substitutes. *Clinical and Experimental Dermatology* 42(3): 251-260.
- (60) **Swindell WR\***, Michaels KA, Sutter AJ, Diaconu D, Fritz Y, Xing X, Sarkar MK, Liang Y, Tsoi A, Gudjonsson JE\*, Ward NL\*. 2017. Imiquimod has strain-dependent effects in mice and does not uniquely model human psoriasis. *Genome Medicine* 9(1): 24 [\*Equal contributions].
- (59) Fritz Y\*, Klenotic PA\*, **Swindell WR\***, Yin Z, Groft SG, Zhang L, Baliwag J, Camhi MI, Diaconu D, Young AB, Foster AM, Johnston A, Gudjonsson JE, McCormick TS, Ward NL. 2017. Induction of alternative proinflammatory cytokines accounts for sustained psoriasiform skin inflammation in IL-17C+IL-6KO mice. *Journal of Investigative Dermatology* 137(3): 696-705 [\*Equal contributions]
- (58) Liang Y, Tsoi LC, Xing X, Beamer M, **Swindell WR**, Sarkar MK, Berthier CC, Stuart PE, Harms PW, Nair RP, Elder JT, Voorhees JJ, Kahlenberg M, Gudjonsson JE. 2017. VGLL3-regulated gene network as a promoter of gender biased autoimmune diseases. *Nature Immunology* 18(2):152-160.
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- (56) Xing X, Liang Y, Sarkar MK, Wolterink L, **Swindell WR**, Voorhees JJ, Harms PW, Kahlenberg JM, Johnston A, Gudjonsson JE. 2016. IL-17 responses are the

- dominant inflammatory signal linking inverse, erythrodermic and chronic plaque psoriasis. *Journal of Investigative Dermatology* 136(12): 2498-2501.
- (55) **Swindell WR**, Xing X, Fritz Y, Diaconu D, Simon DI, Ward NL, Gudjonsson JE. 2016. Deficiency of myeloid-related proteins 8 and 14 (Mrp8/Mrp14) does not block inflammaging but prevents steatosis. *Oncotarget* 7(24):35535-35551.
- (54) **Swindell WR**, Sarkar MK, Liang Y, Xing X, Gudjonsson JE. 2016. Cross-disease transcriptomics: Unique IL-17A signaling in psoriasis lesions and an autoimmune PBMC signature. *Journal of Investigative Dermatology* 136(9):1820-1830.
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