

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF DERMATOLOGY

Johann E. Gudjonsson, M.D., Ph.D., associate professor of dermatology, with tenure, Department of Dermatology, Medical School, is recommended for promotion to professor of dermatology, with tenure, Department of Dermatology, Medical School.

Academic Degrees:

Ph.D.	2003	University of Iceland Faculty of Medicine, Reykjavík, Iceland
M.D.	1998	University of Iceland Faculty of Medicine, Reykjavík, Iceland
B.S.	1992	Menntaskólinn í Reykjavík, Iceland

Professional Record:

2017-present	Associate Professor of Dermatology, with tenure, University of Michigan
2010-2017	Assistant Professor of Dermatology, University of Michigan
2008-2010	Clinical Lecturer of Dermatology, University of Michigan

Summary of Evaluation:

Teaching: Dr. Gudjonsson is an exceptional educator, who teaches medical students, graduate students, post-doctoral fellows, house officers, and junior faculty. He teaches within his research laboratory and at the bedside within his outpatient clinics. He also provides annual didactic lectures on cutaneous autoimmune diseases to the dermatology residents, and participates in monthly departmental research conferences. Within his weekly outpatient dermatology clinics, Dr. Gudjonsson provides clinical training to dermatology residents and clerkship medical students in the care of patients with medically complex dermatological issues and immunologically mediated skin disease. He builds his trainees' skills in differential diagnosis and management of chronic skin conditions by helping them connect their understanding of cutaneous biology and immunology to their observations in clinical practice. Dr. Gudjonsson actively fosters the growth of research training and opportunities for early career scientists in the field of investigative dermatology. As a member of the University of Michigan Medical School Graduate Programs in Immunology and in Biological Sciences, he provides specific training in laboratory techniques to students with an interest in skin immunobiology and genetics and inflammatory skin diseases.

In 2016, Dr. Gudjonsson co-organized a research trainee symposium for the National Psoriasis Foundation, to accelerate career growth for future Ph.D. and clinician scientists pursuing psoriasis research. As the director of the NIH-funded UM Skin Biology and Disease Resource-based Center, supported by an NIH P30, he is leading efforts to develop training and core resources to enhance cutaneous research opportunities and interdisciplinary collaboration at Michigan Medicine. The Center's goals are to encourage and support new researchers and new collaborations in cutaneous research through enrichment programs which include a mentoring program, a speaker series featuring diverse perspectives in dermatology research, and award funding to support new research initiatives.

Research: Dr. Gudjonsson is a pioneering expert in the field of skin immunology and autoimmunity, whose research examines the genetic, immunological and transcriptomic aspects of inflammatory skin disease. His highly innovative, and productive program of translational research is generating new insights into the nature of chronic autoimmune skin diseases and identifying new targets for future clinical trials. Dr. Gudjonsson contributed to multinational genetic studies that identified a majority of the known genetic risk factors for psoriasis. Utilizing innovative bioinformatics, transcriptomic, and proteomic approaches, he has translated findings from these genome-wide analyses into biological context. This work has identified the mechanisms by which IFN- γ supports and promotes Th17 responses in psoriasis and have characterized the role of the IL-36 inflammatory axis in psoriasis and its pustular forms. This work has produced novel targets for biologic therapy and has described how genetic risk variants shape inflammatory responses in psoriatic skin.

Dr. Gudjonsson has built a robust portfolio of extramural research funding as a principal investigator, including two NIH R01 grants, one NIH-NIAMS P30-Skin Biology and Diseases Resource-based Center, and several foundation and industry sponsored grants. He has published 151 peer-reviewed articles; many in top-tier journals, including *Nature Genetics*, *Nature Immunology*, *JCI*, *Journal of Allergy and Clinical Immunology* and *Science Translational Medicine*. He provides frequent invited lectures each year at major scientific conferences and institutions within the U.S. and abroad. Dr. Gudjonsson was selected as the Society for Investigative Dermatology (SID) Rising Star Lecturer for the 2018 International Investigative Dermatology Meeting, a singular honor that recognizes his work as among the best emerging science from SID members.

Recent and Significant Publications:

Billi AC, Gharaee-Kermani M, Fullmer J, Tsoi LC, Hill BD, Gruszka D, Ludwig J, Xing X, Estadt S, Wolf SJ, Rizvi SM, Berthier CC, Hodgin JB, Beamer MA, Sarkar MK, Liang Y, Uppala R, Shao S, Zeng C, Harms PW, Verhaegen ME, Voorhees JJ, Wen F, Ward NL, Dlugosz AA, Kahlenberg JM, Gudjonsson JE: The female-biased factor VGLL3 drives cutaneous and systemic autoimmunity. *JCI Insight* 4(8):e127291, 2019.

Shao S, Tsoi LC, Sarkar MK, Xing X, Xue K, Uppala R, Berthier CC, Zeng C, Patrick M, Billi AC, Fullmer J, Beamer MA, Perez-White B, Getsios S, Schuler A, Voorhees JJ, Choi S, Harms P, Kahlenberg JM, Gudjonsson JE: IFN- γ enhances cell-mediated cytotoxicity against keratinocytes via JAK2/STAT1 in lichen planus. *Science Translational Medicine* 11(511):eaav7561, 2019.

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: 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, 2018.

Liang Y, Tsoi LC, Xing X, Beamer MA, Swindell WR, Sarkar MK, Berthier CC, Stuart PE, Harms PW, Nair RP, Elder JT, Voorhees JJ, Kahlenberg JM, Gudjonsson JE: A gene network regulated by the transcription factor VGLL3 as a promoter of sex-biased autoimmune diseases. *Nature Immunology* 18(2):152-160, 2017.

Johnston A, Xing X, Wolterink L, Barnes DH, Yin Z, Reingold L, Kahlenberg JM, Harms PW, Gudjonsson JE: IL-1 and IL-36 are dominant cytokines in generalized pustular psoriasis. *Journal of Allergy and Clinical Immunology* 140(1):109-120, 2017.

Service: Dr. Gudjonsson serves on the SID Committee on Scientific Programs and co-chaired the 2019 National Psoriasis Foundation Symposium *Precision Medicine and Cure*, and the 2019 Montagna Symposium *Decoding Complex Skin Diseases: Integrating Genetics, Genomics and Disease Biology*. He serves as a member of the International Psoriasis Council Board of Directors, has chaired scientific review boards for the Dermatology Foundation and the Alopecia Areata Foundation of America, and has served on the scientific/medical advisory boards for the National Psoriasis Foundation and the Lupus Foundation of America.

External Reviewers:

Reviewer A: “He has produced a great quantity of work without compromising on its quality... it is evident to me that he is among the top tier of his peers...I would anticipate no problem promoting Dr. Gudjonsson to the level of Professor with tenure if he were a member of my faculty at our University.”

Reviewer B: “Dr. Gudjonsson’s publication record has proceeded at a torrid clip, and the impact of his publications has increased as well...These prestigious national and international positions are clear indications of not just ongoing but growing national and international stature... Dr. Gudjonsson would clearly meet the threshold for promotion to full Professor in the Tenure Track at [my institution].”

Reviewer C: “His contributions to the literature on topics such as psoriasis, lupus, and other chronic inflammatory skin diseases (among others) have been seminal. His exploration of signaling and the cellular level roots of skin disease ranks him among the best investigators in the dermatology field...He repeatedly has shown his ability to advance our understanding of dermatologic diseases by studying patients directly, through both genetic or molecular techniques...His accomplishments and international reputation reflect extremely well on UM.”

Reviewer D: “His scholarly contributions to the field of investigative dermatology have been outstanding...Might Dr. Gudjonsson’s work meet the requirements...for promotion and, if applicable, tenure at your institution? Absolutely...I fully support his promotion without reservation.”


Reviewer E: “His ability to apply highly sophisticated molecular genetic analysis to human disease and provide meaningful interpretation of the results sets him aside from his peers...he is certainly in a small group at the very top of his field.”

Reviewer F: “His contributions have been recognized nationally and internationally by invited presentations and visiting professorships at academic medical centers around the country and scientific meetings around the globe...If Dr. Gudjonsson were a tenured Associate professor in my department...he would also qualify for promotion from Associate professor with tenure to professor with tenure as an investigator-clinician.”

Reviewer G: “This constellation of work concerning autoimmunity demonstrates the broad scope of Dr. Gudjonsson’s talent and impact on fields of inquiry concerning inflammatory and autoimmune skin diseases...the quality, quantity, and focus of his publications and grant awards attest to the durable and ongoing impact of Dr. Gudjonsson's work...he would hold the rank of Professor with Tenure at the Department of Dermatology at the [my institution].”

Summary of Recommendation:

Dr. Gudjonsson is an outstanding physician-scientist, who has gained national and international recognition for his contributions to the field of skin immunology and autoimmunity. His comprehensive knowledge of immunology and dermatology and ongoing involvement in translational research have established him as a foremost expert for patients with medically complex dermatologic disease. I am pleased to recommend Johann E. Gudjonsson, M.D., Ph.D. for promotion to professor of dermatology, with tenure, Department of Dermatology, Medical School.



Marschall S. Runge, M.D., Ph.D.
Executive Vice President for Medical Affairs
Dean, Medical School

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