PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF NEUROLOGY

David N. Irani, M.D., associate professor of neurology, with tenure, Department of Neurology, Medical School, is recommended for promotion to professor of neurology, with tenure, Department of Neurology, Medical School.

Academic Degrees:

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<tr>
<th>Degree</th>
<th>Year</th>
<th>Institution</th>
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<tbody>
<tr>
<td>M.D.</td>
<td>1987</td>
<td>University of Michigan</td>
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<tr>
<td>B.S.</td>
<td>1985</td>
<td>University of Michigan</td>
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Professional Record:

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<tr>
<th>Year</th>
<th>Position Description</th>
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<tr>
<td>2010-present</td>
<td>Associate Professor of Neurology (with tenure), University of Michigan</td>
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<tr>
<td>2007-2010</td>
<td>Associate Professor of Neurology (without tenure), University of Michigan</td>
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<tr>
<td>1996-2007</td>
<td>Assistant Professor The Johns Hopkins University School of Public Health</td>
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<tr>
<td>1996-2007</td>
<td>Assistant Professor of Neurology, The Johns Hopkins University School of Medicine</td>
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<tr>
<td>1993-1996</td>
<td>Instructor, Department of Neurology, The Johns Hopkins School of Medicine</td>
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Summary of Evaluation:

Teaching: Dr. Irani spends 15-20% of his academic time teaching and mentoring trainees at various levels. Three-quarters of these interactions occur in clinical venues and the rest occur in the basic science domain. On the clinical side, Dr. Irani received the Department of Neurology faculty teaching award at Johns Hopkins in 1999, and his teaching evaluations from our medical students and neurology residents are uniformly strong. Consistent themes from the comments provided by medical students highlight his availability, inclusivity, and didactic teaching apart from rounds. His resident evaluations also praise his availability and efficiency on rounds, his willingness to adjust daily workflows based on the demands of the service, and his strong interpersonal connections with patients and family members. On the research side, Dr. Irani’s main teaching occurs in the form of one-on-one mentorship of the post-doctoral fellows who work in his lab. He receives high marks from these more advanced trainees for his ability to strike a balance between guiding the next step of the experimental plan versus letting individuals set their own agendas (even if it means backtracking to his preferred course of action down the road). This capacity to let his post-doctoral fellows “learn from their own mistakes” is essential to their transition to scientific independence.
Research: Dr. Irani's research program mostly uses experimental animal models to better understand the cellular and molecular underpinnings of CNS inflammation, with the goal of determining how insights gained in these systems might better inform human disease pathogenesis and treatment. Dr. Irani also invests substantial effort into the direct study of clinical samples to corroborate his findings in mice and to validate candidate targets in humans. His early work focused on host responses during alphavirus encephalitis in mice, but more recently he has studied how supporting glial cells (astrocytes, microglia) that are not direct targets of infection contribute to bystander neuronal injury and might themselves become treatment targets in these diseases. Following his recruitment to UM in 2007, Dr. Irani's lab developed an acute encephalitis model in mice caused by an alphavirus that is also a human pathogen (thus requiring all work be conducted in our high biocontainment facility), and he has broadened his interest into the area of how glial cells contribute to autoimmune inflammation in the CNS. This work raises the possibility that therapies targeting glial cells might also be applicable in human MS. Indeed, drugs that act directly on glia would be conceptually innovative in many neurologic diseases. Dr. Irani's vita lists 49 peer-reviewed publications, 12 non-peer-reviewed papers, 23 book chapters and one edited book. Much of his work is thematically linked around issues pertaining to the identification, control and sequelae of CNS inflammation. Dr. Irani has maintained near-continuous NIH funding since his recruitment to UM in 2007.

Recent and Significant Publications:


Service: Dr. Irani has made several important administrative contributions to Michigan Medicine. In early 2010, he was selected through a competitive process to become Medical Director of the East Ann Arbor (EAA) Infusion Center. He rapidly galvanized the formation of the Ambulatory Infusion Formulary Committee (AIFC, a group he still chairs) that put together infusion order sets, treatment protocols for hypersensitivity reactions, and a rigorous process to
get new drugs added to our infusion formulary. AIFC also created the Michigan Infusion Scheduling Team (MIST), a group that has streamlined the infusion prior authorization process and has created a coordinated scheduling mechanism now serving the East Ann Arbor, Taubman, Canton, and Northville infusion areas. Given how important ambulatory infusion has become to the financial bottom line of our Health System, Dr. Irani deserves significant credit for his central role in developing and expanding these important clinical services over the last seven to eight years.

Dr. Irani became the medical director of the Taubman Neurology Clinic in April 2015. Since then, he has partnered with the clinic manager, chief departmental administrator, and clinic nurse manager to improve many aspects of the patient experience in the Neurology Clinic. Tangible examples of progress made under his leadership include: a) a complete overhaul of the clinic’s telephone call management process, b) rigorous adherence to institutional hand hygiene standards, c) implementation of a new program to provide eConsults to UMHS primary care providers, d) utilizing a pilot program to get electronic drug prior authorizations directly from insurance companies, and e) organizing providers, nurses, medical assistants and staff into distinct teams. As a reflection of his important administrative roles here at Michigan Medicine, Dr. Irani was elected to the UMMG’s Clinical Practice Committee in September 2016.

At a national level, Dr. Irani’s most important service contributions come in his role as a scientific reviewer. From 2000-2005, Dr. Irani served as a member of the National Multiple Sclerosis Society’s Scientific Advisory Committee on Fellowships, reviewing both clinical and basic science fellowship applications. Since 2002, Dr. Irani has been a reviewer for the Dana Foundation, a private philanthropic organization committed to supporting early career investigators in the neurosciences. Finally, Dr. Irani just completed extensive service to the NIH’s Cellular and Molecular Biology of Glia Study Section (ad hoc member, 2007-2011; standing member, 2011-2017). As one of the few clinician-scientists in the world with expertise in glial cell biology, Dr. Irani was frequently able to help his basic science colleagues evaluate the disease relevance of the applications in front of them. The time spent reviewing three cycles of NIH applications per year for over a decade is a testament to Dr. Irani’s goal to give back to the system that has supported him for 20+ years.

**Professional Work:** Dr. Irani is highly sought after as a subspecialty provider in neuroimmunology, and he applies a rigorous and nuanced approach to the diagnosis and management of patients with multiple sclerosis (MS) and related CNS inflammatory disorders. Dr. Irani typically spends one day per week seeing patients in our departmental MS Clinic. In tribute to his superb clinical, teaching and organizational skills, he was appointed its medical director in July 2013. Dr. Irani also happens to be a fine general neurologist, and he is a stalwart on the inpatient services. He is very comfortable taking care of hospitalized patients outside his subspecialty area of expertise, and he is well regarded on 4A of the University Hospital for his calm demeanor and his commitment to excellent patient care. Although Dr. Irani has been offered the opportunity to restrict his clinical activity to the outpatient domain to better protect his research time, he has not chosen to exercise this option. This strong sense of responsibility to his department highlights the excellent example Dr. Irani sets for his colleagues and trainees alike.
External Reviewers:

Reviewer A: “I am impressed by the quality of work that David Irani has produced, and how scholarly are the publications that have resulted from his studies. His publication record has been very consistent and suggests that in each of the areas of interest that he has, future productive work is to be expected.”

Reviewer B: “Given Dr. Irani’s clinical responsibilities and limited dedicated research time, he has been very successful over the past 8 years in consistently publishing high quality basic and translational research in the area of neuroinflammation as well as glia and neuronal function in vivo.”

Reviewer C: “His research on the innate immune responses and CXCL13 in EAE is important and of high relevance to multiple sclerosis….Overall I would rate his research and scholarship contributions as outstanding.”

Reviewer D: “He has sustained excellence in both the clinical and laboratory arenas, a significant accomplishment….Many of his research articles are noted as first or senior authorship, and these have appeared in good to excellent journals. He also has been a prolific reviewer in many outstanding journals, and participated as an editorial board member of two. In addition, he has been a platform and invited speaker at a number of important meetings.”

Reviewer E: “Dr. Irani has a high profile internationally because of his broad expertise as a clinician-scientist and seminal observations he has provided to the field….Dr. Iran’s contributions as an investigator, as well as an editor, and spokesperson for neuroimmunology and neurologic disease are unparalleled in the United States.”

Summary of Recommendation:

Dr. Irani maintains a high level of clinical excellence and administrative responsibility, while also finding the time to write and review research grants, prepare scientific manuscripts, and mentor the next generation of neuroimmunologists. I am pleased to recommend David N. Irani, M.D. for promotion to professor of neurology, with tenure, Department of Neurology, Medical School.

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

May 2018