

PROMOTION RECOMMENDATION
THE UNIVERSITY OF MICHIGAN
MEDICAL SCHOOL
DEPARTMENT OF SURGERY

Erika Newman, M.D., assistant professor of surgery, Department of Surgery, Medical School, is recommended for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School.

Academic Degrees

M.D.	2001	Georgetown University
B.S.N.	1994	Georgetown University

Professional Record

2010-present	Assistant Professor of Surgery, University of Michigan
1994-2001	Registered Nurse in Pediatric and Burn Intensive Care Units, Children's National Medical Center

Summary of Evaluation

Teaching: Dr. Newman is recognized as an enthusiastic and effective teacher of undergraduate students, surgical residents, fellows and medical students at the University of Michigan Medical School. She devotes substantial effort teaching clinical trainees bedside, in the operating room, and in the clinic estimating more than five hundred hours per year. Dr. Newman has been actively engaged in teaching and mentoring undergraduate students through the Undergraduate Research Opportunity Program, medical students through the Summer Scholarship Program and on the wards, residents, post-doctoral research fellows, and clinical fellows. She served as the course director and facilitator for the third and fourth year medical student pediatric surgery clerkship and as the director of fourth year medical student bootcamp. Dr. Newman has developed national curricula for Neuroblastoma and Wilms Tumor for the Surgical Council on Resident Education: SCORE, PEDSCORE. She was recognized nationally as a surgical educator by the American Board of Surgery and selected as a content writer for the Pediatric Surgery In-Training Examination (PSITE). She was also invited to serve on the Standard Setting Panel for the Pediatric Surgery Qualifying Examination. Dr. Newman has served as the associate program director for General Surgery and for the Pediatric Surgery Fellowship Programs. In this role, she has been instrumental in implementing a more inclusive and objective process to recruit and rank diverse resident applicants for the national residency match program.

Research: Dr. Newman has substantive scholarly impact through her research on pediatric neuroblastoma. Her work examining DNA ligase III (LIG3) as a novel molecular target in neuroblastoma has impacted the field of pediatric oncology. She is poised to develop and validate the first DNA ligase inhibitor to specifically target LIG3 *in vivo* and in patients with high-risk neuroblastoma tumors. Dr. Newman's laboratory is also focused on identifying differences between normal embryogenesis and tumorigenesis in differentiating neural crest stem cells (NCSC), the neuroblastoma progenitor cell. She has developed the first human NCSC model of neuroblastoma and uncovered an important link between the MYCN transcription factor and LIG3 expression in developing NCSC. This work set precedence to investigate DNA repair mechanics

in neuroblastoma tumor initiation. Dr. Newman's laboratory has also successfully established and fully characterized an innovative metastatic orthotopic patient-derived xenograft model of neuroblastoma that will be very useful for preclinical drug discovery studies. Dr. Newman has received research awards and grants from the Robert Wood Johnson Foundation and the Taubman Medical Research Institute. She has been an invited speaker and visiting professor at institutions such as Lurie Children's Hospital, Northwestern University, and was one of few medical school faculty invited to give a TEDxUM talk. Dr. Newman's research is funded through institutional grants. She has published 25 peer-reviewed articles, and has been invited to present her research on 23 occasions regionally and nationally.

Recent and Significant Publications:

Thomas T, Chukkapalli S, Van Noord R, Krook M, Hoenerhoff M, Dillman J, Lawlor E, Opiari V, Newman E: Utilization of ultrasound guided tissue-directed cellular implantation for the establishment of biologically relevant metastatic tumor xenografts. *J Vis Exp* May 25(135), 2018.

Newman E, Chukkapalli S, Bashllari D, Thomas T, Van Noord R, Lawlor E, Hoenerhoff M, Opiari A, Opiari V: Alternative NHEJ pathway proteins as components of MYCN oncogenic activity in human neural crest stem cell differentiation: implications for neuroblastoma initiation. *Cell Death Dis* 8 (12): 3208, 2017.

Van Noord R, Thomas T, Krook M, Chukkapalli S, Hoenerhoff M, Dillman J, Lawlor E, Opiari V, Newman E: Tissue-directed implantation using ultrasound visualization for development of biologically relevant metastatic tumor xenografts. *In Vivo* 31(5): 779-791, 2017.

Thenappan A, Halaweish I, Mody R, Smith E, Geiger J, Ehrlich P, Jasty Rao R, Hutchinson R, Yanik G, Rabah R, Heider A, Stoll T, Newman E: Review at a multidisciplinary tumor board impacts critical management decisions of pediatric patients with cancer. *Pediatr Blood Cancer* 64(2): 254-258, 2017.

Newman E, Lu F, Bashllari D, Wang L, Opiari A, Castle V: Alternative NHEJ pathway components are therapeutic targets in high-risk neuroblastoma. *Molecular Cancer Research: MCR* 13(3): 470-82, 2015.

Service: Dr. Newman's service commitments are extensive. She has a substantial involvement in The Michigan Promise, a diversity, equity and inclusion (DEI) initiative in the Department of Surgery to invest in the professional and academic development of faculty and residents to help them realize their professional goals. This program has six stated areas that include Outreach, Leadership, Development, Innovation, Recruitment, and Environment. This effort has transformed recruitment and hiring of new faculty in the Department of Surgery. Dr. Newman has also spearheaded this effort on a national level, which includes other top-tier academic medical centers, including Harvard Medical School, Stanford University, the University of Wisconsin, and the University of Alabama, and is titled The Promise Coalition. A seventh arm of this program is a scholarly research arm, which she is pursuing, and has resulted in one accepted manuscript of which she is senior author, and a contract for a book with a publisher, of which she will be an editor. She is the founder and surgical director of the C.S. Mott Solid Tumor Oncology Program (MSTOP) and chairs all committees related to the program. Dr. Newman is currently

serving as the co-chair of the C.S Mott Children's Hospital Child Health Services Strategy: Cancer Planning Steering Committee. She serves on the Department of Surgery chair search committee and has previously served on the Transplant Surgery division chief search committee. In her role as the associate chair for Faculty Development, she was instrumental in reforming the Department of Surgery Recruitment procedures. Dr. Newman is the current chair of the Department-wide Recruitment Committee. She is a founding member of the Michigan Women's Surgical Collaborative and is on the Advisory Board of the Network to Advance Women Faculty (ADVANCE) in the Medical School. She is the co-lead and strategic planner for the Office of Faculty Life, as well as the University of Michigan Medical School Strategic Planning Leadership Workgroup for the People strategic pillar. Dr. Newman is one of three surgeons on the international Neuroblastoma Committee of the Children's Oncology Group (COG). She is a founding member of the COG Pediatric Surgical Oncology Research Consortium, a member of the American Board of Surgery Standard Setting Panel for the Pediatric Surgery Qualifying Examination. She is a member of the American College of Surgeons Video-based Education committee and the Association of Academic Surgery's Translational Oncology Committee. Dr. Newman is already having a profound impact at the institutional and national levels with her service efforts. Additionally, expansion of these activities is promising as a foundation for her future scholarly work.

External Reviewers:

Reviewer A: "I know that I am not alone in saying that all of our colleagues look forward to Dr. Newman's presentations and new information on the biology of neuroblastoma... Dr. Newman is known in the field as being one of the leaders in neuroblastoma basic science research."

Reviewer B: "...Dr. Newman's scholarly portfolio should be considered of outstanding quality and high-impact...I am candidly unaware of any other individual who has demonstrated the level of accomplishment across the scholarly domain of pediatric surgery as an Assistant Professor, at any other institution."

Reviewer C: "Among the pediatric surgeons in Dr. Newman's peer group, she clearly stands out. She is a 'take charge' person who is always posing new clinical research questions, developing new research protocols for our pediatric surgical research consortium, and then following through with the projects. In short, Erika would be on my short list of people with whom I would collaborate to make sure a project is successful."

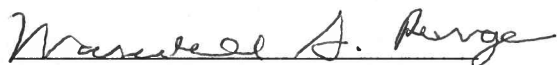
Reviewer D: "Her work on mechanisms and proteins involved with non-homogenous end joining (NHEJ pathway) are innovative and important...Also, her work on obtaining patient derived xenografts using ultrasound-guided biopsies is very relevant to the present initiatives in precision medicine. These are outstanding accomplishment[s] for a pediatric surgeon at her level given the clinical load."

Reviewer E: "Dr. Newman has developed a growing reputation as a pediatric surgical oncology expert with particular expertise in neural blastoma...This work has been nationally recognized with four seminal important publications in her field...I...find her to be an accomplished, hardworking, personable, intelligent investigator who would be a tremendous asset to any institution."

Reviewer F: “Dr. Newman has shown a body of work in comparison which is extremely novel and highly impactful...it is not an exaggeration to say that I look forward to seeing her work presented at national meetings...Dr. Newman’s service record has been exemplary...She is widely respected as a rising star in pediatric surgery.”

Summary of Recommendation:

Dr. Newman is an active and passionate teacher, and an outstanding surgeon with unique expertise in pediatric cancer, solid tumors, and neuroblastoma. She has made an impact institutionally and nationally through her development and execution of The Michigan Promise, and The Promise Collation to invest in diversity, equity and inclusion of the advancement of residents and faculty and the advancement of their careers. I am pleased, therefore, to recommend Erika Newman, M.D. for promotion to associate professor of surgery, with tenure, Department of Surgery, Medical School.



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

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