

PROMOTION RECOMMENDATION  
UNIVERSITY OF MICHIGAN MEDICAL SCHOOL  
DEPARTMENT OF SURGERY

David L. Brown, 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.	1993	Vanderbilt University
B.A.	1989	Wittenberg University, Springfield, OH

Professional Record:

2005–Present	Assistant Professor of Surgery, University of Michigan
2001–2005	Clinical Assistant Professor of Surgery, University of Michigan
2000–2001	Senior Lecturer of Surgery, University of Melbourne, Melbourne, Australia

Summary of Evaluation:

Teaching: Dr. Brown has exhibited the highest degree of excellence and leadership in teaching in order to educate and motivate undergraduate and medical students, residents and post-doctoral fellows. He is an effective and exemplary teacher and mentor. He has served to guide students and fellows in laboratory and clinical research, which has led to the funding of several peer-reviewed grants, 12 awards, and to over 48 presentations and 12 publications by his mentees as first authors.

Dr. Brown strives for excellence in his clinical teaching as well. He was awarded the Faculty Teaching Award by his residents two years in a row. He led the residents of not only the Division of Plastic Surgery, but those of every related surgical discipline, in the writing of *The Michigan Manual of Plastic Surgery*, which was published by Lippincott. It has quickly become the favorite teaching aid of students and residents in this specialty around the world. In addition, it has served to highlight the Michigan Plastic Surgery Training Program as a pinnacle of education.

Research: Dr. Brown has developed a research program centered on vascularization in tissue engineering, which has been recognized internationally. He currently has working models of in-vivo engineering of small-diameter arteries, skeletal and cardiac muscle, and a renal hemofilter. Productivity of his efforts can be measured by his 30 peer-reviewed publications, 85 presentations, and nine funded grants, including those from the Plastic Surgery Educational Foundation (PSEF), Department of Defense and NIH. He has submitted three patent applications, one of which has been licensed by an outside

company. He was recently awarded an R21 grant from the NIH to study in-vivo engineering of vascularized cardiac muscle. He has been an invited speaker at numerous national and international meetings regarding his research findings. Dr. Brown's reputation as an exacting scientist has led him to be recruited as a member of two NIH study sections and as a guest reviewer for the *Journal of Surgical Research*. In addition, he has been elected to national leadership positions, including the Program Director of the Michigan Academy of Plastic Surgeons and the Program Committee of the Plastic Surgery Research Council.

Recent and Significant Publications:

Tiranathanagul K, Dhawan V, Lytle IF, Zhang W, Borschel GH, Buffington DA, Brown DL, Humes, HD: Tissue Engineering of an implantable bioartificial hemofilter. *ASAIO Journal* 53: 176-86, 2007.

Borschel GH, Dow DE, Dennis RG, Brown DL: Tissue engineered axially-vascularized contractile skeletal muscle. *Plastic and Reconstructive Surgery* 117:2235-42, 2006.

Borschel GH, Huang Y-C, Calve S, Arruda EM, Lynch JB, Dow DE, Kuzon WM, Dennis RG, Brown DL: Tissue engineering of recellularized small diameter vascular grafts. *Tissue Engineering* 11(5/6): 778-786, 2005.

Birla RK, Borschel GH, Dennis RG, Brown DL: Myocardial engineering *In Vivo*: formation and characterization of contractile, vascularized 3-Dimensional cardiac tissue. *Tissue Engineering* 11(5/6): 803-813, 2005.

Brown DL and Borschel GH (ed): *The Michigan Manual of Plastic Surgery*, Lippincott, Williams and Wilkins, Inc., Philadelphia, 2004. (ISBN 0-7817-5189-6)

Service: Clinically, Dr. Brown has earned a reputation for meticulous care of his patients. He has developed an expertise in facial defect reconstruction following skin cancer resection. This has led to referral of difficult problems from colleagues across the state and the nation. Dr. Brown has also developed an interest in thoracic and abdominal wall reconstruction, routinely being considered as one of the "go-to guys" for the Orthopedic Trauma and Thoracic Surgery surgeons for combined cases.

Within the Medical Center, Dr. Brown has been recognized for his clinical and administrative service. He is a founding member of the Plastic Surgery Education Steering Committee, and was the Staff Leader of the Clinic Improvement Committee. He was recently selected to be a Clinical Lead on the multi-million dollar Electronic Medical Record project. He serves as the Secretary/Treasurer of Surgery's training program alumni society. On a State level, Dr. Brown was elected to the Executive Council of the Michigan Academy of Plastic Surgeons, and is the Program Director with the task of arranging the bi-annual meeting next summer. Nationally, he was recently honored with acceptance into the "Pathways to Leadership Program," organized by the American

Society of Plastic Surgeons. This program provides a year-long training curriculum which seeks to foster and inspire plastic surgeons as leaders. Dr. Brown has served for several years as a member of the Scientific Program Committee for the Plastic Surgery Research Council, and has served as a Session Moderator at annual meetings of the American College of Surgeons, American Society of Plastic Surgeons, and the Plastic Surgery Research Council. He also serves as a Committee Member for the American Society for Peripheral Nerve. This past year, he was inducted into the Society of University Surgeons, and is an affiliate member of the Association of Academic Chairmen of Plastic Surgery. Dr. Brown is one of a small, select group invited to participate in the "Pathways to Leadership" program of the American Society of Plastic Surgeons.

#### External Review:

Reviewer A: "As a result of the scholarly activities that Dr. Brown has pursued in tissue engineering, I believe that he has entered the top echelon of the academic plastic surgeons. His work is cited and he is considered a 'go to quote person' for much of the work on tissue engineered muscle. He would certainly be in the top 5% of his peers in academic plastic surgery....He has developed national acclaim and will indeed be a leader in years to come of various plastic surgery societies."

Reviewer B: "David has amassed an enviable teaching record both at the University of Michigan and as well as an invited lecturer both nationally and globally. He has even found the time to volunteer his surgical expertise with Healing the Children, a surgical charity caring for children afflicted with congenital facial deformities."

Reviewer C: "Dr. Brown is nationally recognized as an outstanding academic plastic surgeon. He has made important and novel contributions to the area of tissue engineering of both skeletal and cardiac muscle and also done some very important innovative work on the development of a bioartificial kidney. Dr. Brown is very well published in these areas and has received national awards for his research work."

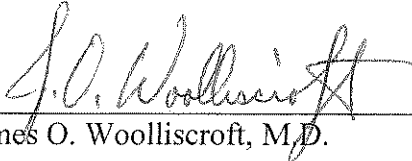
Reviewer D: "In viewing Dr. Brown's CV, it is impressive to me how accomplished he is and how active he has been, not only in national peer organizational service but also in committee work as a reviewer for journals and in teaching of residents."

Reviewer E: "He has made important contributions to this field through his work studying revascularization of tissue engineered constructs of muscle and tendon....He is a credit to your faculty and the University."

#### Summary of Recommendation:

Dr. David Brown has excelled in his clinical care of patients, in his research, and in his role as a teacher. His high-impact contributions in research and in service to national organizations have garnered him a well-deserved reputation as one of the finest

plastic surgeons in academia today. His book has become a standard text in the field and has brought prominence to the Section of Plastic Surgery and to the University of Michigan. His leadership potential has been recognized by the largest professional organization in the field and he is clearly on a trajectory to fulfill this potential both locally and nationally. I proudly recommend Dr. David Brown for promotion to Associate Professor of Surgery, with tenure.



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James O. Woolliscroft, M.D.

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*Lyle C. Roll Professor of Medicine*

May 2008