

I am a Doctoral Candidate at Case Western Reserve University in the Department of Materials Science and Engineering and obtained a B.S. in Biology/Pre-Medicine at Kent State University and a B.E. I.C.P. in Materials Engineering and M.S.E. in Mechanical Engineering both from Youngstown State University. My master's research focused on the biomechanical response of composite bone following the removal of femoral fixation hardware using experimental and computational methodologies. During my time at CWRU, I have mentored numerous high school and undergraduate student research projects that have focused on the mechanical characterization of wires used in biomedical applications. My dissertation research investigates the effects of inclusions on the fatigue life of superelastic Nitinol fine wire and I am also involved in projects evaluating the reliability of implantable electrodes and characterizing the fatigue behavior of dental archwires. I am an active member of ASTM International, serving on E04 Metallurgy, E08 Fatigue and Fracture, and E28 Mechanical Testing Committees and also hold memberships in ACerS, AIST, ASM International, MSA, MRS, Microscopy Society of Northeastern Ohio, SAMPE, SWE, and TMS.

I am seeking a position on the MNSO Board as a Student Member. I would like to increase student participation in the local chapter and in conferences by reaching out to NEO universities and respective student organizations. My experiences from the Portland M&M Conference were nothing short of phenomenal, and I would like to find ways that will encourage and/or assist more students from our region to participate in the Columbus conference this coming summer. I believe my prior leadership and board experience in community and professional organizations will help in this effort.



Janet L. Gbur

Doctoral Candidate Materials Science and Engineering
Case Western Reserve University

M.S.E. Mechanical Engineering	Youngstown State University	2011
B.E. ICP-Materials Engineering	Youngstown State University	2008
B.S. Biology/Pre-Medicine	Kent State University	2006

Related experience:

2013-2015 Visiting Graduate Student, Biomedical Engineering, Cleveland Clinic, Lerner Research Institute
2013 *Spring* Teaching Assistant, EMSE 303 Mechanical Behavior, Case Western Reserve University
2012 *Fall* Teaching Assistant, EMSE 372 Materials Related to Design, Case Western Reserve University
2012 *Spring* Teaching Assistant, EMSE 303 Mechanical Behavior, Case Western Reserve University
2011-2016 Graduate Assistant, Materials Science and Engineering, Case Western Reserve University
2008-2012 Engineering Intern-Research, CleveMed

Consulting and patents:

Patent application: "Electrode for Measuring Electrophysiological Signals," Application No. 12/509,858
Filing date July 27, 2009, Attorney docket No. CMD-071

Professional society membership:

ACerS, The American Ceramic Society	AIST, Association for Iron & Steel Society
ASEE, American Society for Engineering Education	ASM International
ASTM International, E04, E08, and E28, Committee Member	MSA, Microscopy Society of America
MRS, Materials Research Society	MSNO, Microscopy Society of Northeastern Ohio
SAMPE, Society for the Advancement of Mat. and Process Eng.	SWE, Society of Women Engineers
TMS, The Minerals, Metals and Materials Society, Biomaterials Committee Member	

Certifications:

NIH Responsibility in Research, May, 2012
Laboratory & Animal Care Use, NEOUCOM IACUC, May 26, 2010

Honors and awards:

TMS Henry DeWitt Smith Scholar (\$2,000), 2016
ASTM International Graduate Scholarship Recipient (\$10,000), 2015
Zeta Tau Alpha Foundation, Ruby Leigh Orgain Founders Grant Recipient (\$9,000), 2015
ASTM Committee E08 on Fatigue and Fracture, M. R. ‘Mitch’ Mitchell Best Student Presentation Award, 2014
Youngstown State University Graduate Commencement Speaker, May 2011
Omicron Delta Kappa, 2010
Golden Key International Honour Society, 2009
Order of the Engineer, 2007
Honor Ring, Zeta Tau Alpha Fraternity (highest service award given nationally to an individual), 2002
Who’s Who Among Students in American Universities and Colleges, 1995-1996
Arby’s Scholarship Award for Outstanding Undergraduate Student Leader, 1995
Order of Omega, 1995

Institutional and professional service:University committees and service:

Case Western Reserve University, Engineering Standards Workshop, Event Organizer, 2015
Youngstown State University, Pete’s Pride, Member, 2014-2015
Case Western Reserve University, Materials Research Society University Chapter, Founding President, 2013
Case Western Reserve University, WISER Program, Volunteer for Introduce a Girl to Engineering Day, 2013
Case Western Reserve University, Graduate Materials Society, President, 2012-2013
ASM Materials Camp Student Assistant at Youngstown State University, 2010
Youngstown State University, Board of Trustees Student Trustee, Student Affairs Committee Member, 1995
Youngstown State University, Board of Trustees Student Trustee, Intercollegiate Athletics Committee Member, 1995

Community, professional and public discipline related service:

Choose Ohio First Poster Conference, Judge, 2015
Lake to River Science Day, Judge, 2015
Hawken School, STEMM Symposium Judge, 2013-2014
Solon Middle School Science Fair, Judge, 2011, 2013, and 2014
Northern Strut Twirling Teams, Owner/Director, 1995-2014
Boardman High School, Spartan Twirler Instructor, 2002-2013, 2015
The Junior League of Youngstown, Pink Ribbon Tea Committee Member, 1997-2013
Case Western Reserve University, Intersections Judge, 2012
Zeta Tau Alpha Fraternity, National Co-Chair Advisor Academy for Leadership Development, 2000-2004
Youngstown Panhellenic Association, Membership Co-Chair, 1999-2001
The Junior League of Youngstown, Board of Directors, 1997-2001
Zeta Tau Alpha Fraternity, Province President XII-A, 1997-2000
Zeta Tau Alpha Fraternity-Zeta Gamma Chapter, General Advisor, 1996-1997

Mentored Students:

Ryan Sienballer, Case Western Reserve University, EMSE 125 Freshman Research, Fall Semester 2015.
Ilana Roth, Case Western Reserve University, EMSE 125 Freshman Research, Spring Semester 2015.
Kimaya Gupte, Case Western Reserve University, EMSE 325 Undergraduate Research, Spring and Fall Semesters 2015.
EBME 328 Research Training, Fall Semester 2015.
Francesca Fabe, Beaumont School, AP Biology Research Project, Fall Semesters 2014 and 2015.
Sahi Hari, Case Western Reserve University, EMSE 125 Freshman Research, Spring Semester 2014.
Micah Jaffe, Hawken School, STEMM Program Research Project, Summer Session 2013.