

## CURRICULUM VITAE

Updated on: (11-14-16)

**NAME** Marko Z. Radic  
**BIRTHDAY** November 7, 1956  
**BIRTHPLACE** Dubrovnik, Croatia (U.S. Citizen)

### EDUCATION

#### Undergraduate:

University of California at Davis, Davis, CA, Jan. 1978 – June 1982,  
Degree Awarded: B.S. in Genetics (summa cum laude), May 1982

#### Graduate:

University of California at Irvine, Irvine, CA, Aug. 1982 – Dec. 1987  
Degree Awarded: Ph.D. in Biological Sciences (magna cum laude), Dec. 1987  
Ph.D. thesis titled: "Mouse Satellite DNA Structure and Interactions with Hoechst 33258, Distamycin A,  
and HMG-I." Advisor: Dr. Barbara A. Hamkalo

#### Post-Doctoral Training:

Institute for Cancer Research, Fox Chase Cancer Center, Philadelphia, PA. Feb. 1988 – Aug. 1991  
Structure-Function Analysis of Anti-DNA Autoantibodies Mentor: Dr. Martin Weigert

### UNIVERSITY APPOINTMENTS

August 2007 Awarded Tenure, Department of Molecular Sciences, University of Tennessee, Health Sciences Center, Memphis, TN  
Aug. 2000 to Present Associate Professor with Tenure, Department of Molecular Sciences, University of Tennessee, Health Sciences Center, Memphis, TN  
Mar. 2002 to Present Member, Rheumatic Diseases Center, University of Tennessee, Health Sciences Center, Memphis, TN  
Sept. 1995 - Aug. 2000 Associate Professor, Department of Microbiology and Immunology, MCP-Hahnemann University, Philadelphia, PA  
Oct. 1991 - Sept. 1995 Assistant Professor, Department of Microbiology and Immunology, MCP-Hahnemann University, Philadelphia, PA

## **HONORS/AWARDS**

### **Graduate School:**

1982 - 1983 Recipient of University of California Regents' Fellowship.

1986 - 1987 Recipient of Predoctoral Biotechnology Training Grant.

### **Post-Doctoral Training:**

1988 - 1990 Recipient of NIH Postdoctoral Training Grant.

May 1990 Postdoctoral NIH Fellowship: "Mechanism and Control of DNA Binding by Antibodies."

### **Junior Faculty:**

Oct. 1992 Julius Erving Lupus Research Award from the Lupus Foundation of Delaware Valley.

July 1994 Arthritis Foundation Investigator (award for establishment of an independent investigator)

June 1995 American Foundation for Aging Research (AFAR) Award for Biomedical Research

### **Faculty:**

April 2007 Elected Member of the Henry Kunkel Society, Rockefeller University, New York City

Nov. 2009 Voted "Outstanding Lecturer" in Microbiology, UTHSC, College of Dentistry

## **SOCIETY MEMBERSHIP**

American Association of Immunologists

Croatian Immunological Society

Henry Kunkel Society

American Association for the Advancement of Science (lapsed)

American Association for Cancer Research (lapsed)

The New York Academy of Sciences (lapsed)

## **TEACHING EXPERIENCE**

- 2014 - Pres. Participating faculty in "Biochemical and Cellular Methods", graduate level course
- 2013 - Pres. Organized Microbiology Foundations for Masters Program in Pharmacology
- 2012 - Pres. Participating faculty in "Immunity and Inflammation", graduate level course
- 2008 Spring Course Director, Special Topics course, Targets of Autoantibodies, IPBS 840
- 2006 - 2007 Course Director, Inflammation and Autoimmunity, IPBS 840  
(designed a new course for IPBS students in the MPII track, 32 contact hours)
- 2003 - Pres. Course Director and Section Coordinator for Dental Microbiology 201  
(responsible for 16 lectures - content, presentations, and testing in the Immunology part of the course taken by 80+ dentistry (D2) students and overall testing and grading. In 2006, 83% of respondents evaluated MZR's lectures as: "useful, informative, organized, and effective")
- 2002 - 2003 Lecturer, Biochemistry, Molecular Sciences 811  
(presented 2 lectures in a team-taught course)  
Course Director: Dr. John Fain, Molecular Sciences
- 2002 - 2003 Section Coordinator, Molecular Sciences 929, Tools of Molecular Biomedical Research,  
(12 contact hours, responsible for Cell Biology and Immunology content and testing)
- 2001 - 2002 Lecturer, Molecular Sciences 929, Tools of Molecular Biomedical Research  
(7.5 contact hours), Course Director: Dr. Martha Howe, Molecular Sciences
- 1995 - 2000 Lecturer for Medical Immunology
- 1996 - 2000 Lab Module Leader for Medical Microbiology
- 1997 - 2000 Co-Coordinator for Immunology I and Immunology II
- 1993 - 2000 Lecturer for Cell and Molecular Biology Core, Sections I, II, & III
- 1996 - 2000 Co-Coordinator for Basic Molecular Immunology
- 1996 - 2000 Lecturer, Biomedical Techniques Course
- 1995 - 2000 Coordinator of Microbiology and Immunology Faculty Presentations
- 1995 - 1996 Coordinator of Student Presentations and Journal Club
- 1995 - 1996 Co-Coordinator and Lecturer for Fundamental Immunology
- 1995 - 1996 Coordinator for Cell and Molecular Biology 715, Section I
- April 1995 Certified for Small Group Facilitator in the Program for Integrated Learning
- 1992 - 1995 Lecturer for Medical Microbiology & Immunology
- 1992 - 1995 Lab Module Leader for Medical Microbiology & Immunology
- Spring 1992 Course Coordinator, Molecular Biology 527
- 1991 - 1992 Co-director, Protein Structure and Function 529

## **Other Teaching/Service Assignments**

- 1994 - 1998 Supervisor for research rotations of Weiwen Deng, Sangeeta Choudhury and Lin Tang  
(Ph.D. students in Microbiology and Immunology)
- 1995 - 1996 Supervisor for research rotations of Preeda Chunthapong and Devren Eren  
(Ph.D. students in Molecular and Cell Biology)
- 1994 - 1995 Supervisor for research rotations of Anjiang Liu and Imran Mirza  
(Ph.D. students in the Department of Pathology)
- 1993 - 1994 Research advisor for Kathleen Kozak, student in the Program for Integrated Learning.
- 1992 - 1996 Developed Laboratory Manual for Medical Microbiology and Immunology
- Summer 1987 Designed and presented a course on "Recombinant DNA Techniques" to  
California High School Teachers as part of the UCI Summer Science Institute.
- 1983 - 1987 Taught laboratory courses in Comparative Biology, Developmental Biology and  
Biochemistry and revised the content of Biochemistry.

## **GRADUATE STUDENTS TRAINED**

- 2006 - 2013 Nishant Dwivedi, Ph.D. in Microbial Pathogenesis, Immunology and Inflammation, currently postdoctoral researcher at the Immune Disease Institute, Harvard University.
- 2003 - 2008 Salar N. Khan, Ph.D. in Molecular Sciences, recipient of the Robert and Richard Rizzo Student Travel Award from UTHSC (2005), Staff Scientist, Department of Pediatrics, University of Washington, St. Louis, MO, Postdoctoral Researcher in Immunology at the Scripps Research Institute, San Diego, CA
- 2001 – 2005 Amy Cline, Ph.D. in Molecular Sciences, twice recipient of Alma and Hal Reagan graduate student fellowship, MD from UT Medical School, Memphis, TN, Completed Residency in Obstetrics and Gynecology at University of Illinois, 2013, Currently Fellow in the Immunology Department, University of Colorado, Boulder, CO
- 1997 - 2001 Brian A. Cocca, Ph.D. in Microbiology and Immunology, MCP, awarded 2001, Recipient of Gina Finzi Scholarship Award from the Lupus Foundation of America, J.D. from the George Washington University Law School in 2004, currently Esquire and Partner with Stradley Ronon Stevens & Young, LLP, Malvern, PA
- 1994 - 1998 Mandip Parmar, M.D./Ph.D. in Molecular and Cell Biology, awarded in 1999, currently practicing medicine at Union Memorial Hospital, Baltimore, MD.

## **FELLOWS TRAINED**

- 2005 – 2013 Indira Neeli, Ph.D., postdoctoral research associate in Molecular Sciences, UTHSC
- 2003 – 2005 Wenguang Zhang, Ph.D., postdoctoral research associate in Molecular Sciences, UTHSC, currently Instructor in Surgery, University of Nebraska Medical Center, Omaha, NE

## **RESEARCH ROTATIONS OFFERED (since 2000)**

- 2005 – 2006 Supervisor for research rotations of Mekel Richardson and Nishant Dwivedi
- 2003 – 2004 Supervisor for research rotations of Chad Mire, Stephanie Berry, Santosh Vyavahare, Salar N. Khan,
- 2002 – 2003 Supervisor for research rotations of Fei Cao, Ling Jin, Jeremy Geldzahler, Walid Awad,
- 2001 - 2002 Supervisor for research rotations of Amy Cline, John Franks, David Buford, (all of the students were Graduate Degree Candidates in Molecular Sciences or MPII)

## **SUMMER STUDENTS TRAINED (since 2000)**

- 2001 Ms. Nikki Wallace, Junior at Univ. Tennessee, Knoxville, participated in the lab's research as the Ronald McNair Postbaccalaureate Achievement Program.
- 2002 Ms. Xiaoxia Yu, Junior at University of Wisconsin, Riverfalls, participated in the lab's research as the Ronald McNair Postbaccalaureate Achievement Program.
- 2002 Ms. April T. Polk, Senior at Univ. Tennessee Martin, participated in the lab's research as the Ronald McNair Postbaccalaureate Achievement Program.
- 2003 Ms. Kendra Young, 12<sup>th</sup> grade student at Ridgeway High School, participated in the lab's research as volunteer in preparation for college career in science.
- 2004 Ms. Kinjal Shah, 12<sup>th</sup> grade student from Ridgeway High School, was one of 4 Memphis-Shelby County Science Fair Grand Award Winners and went to the Intel International Science and Engineering Fair in Phoenix, AZ May 9 – 13, 2005, won First Place from the National Taiwan Science Education Center (free trip to the Taiwan Science Competition) and 2nd place award, Eastman Kodak Company (\$500). Kinjal is currently a Junior at Vanderbilt University, Nashville, TN.

## **VISITING PROFESSORSHIPS, INVITED LECTURES and PRESENTATIONS (since 2002)**

- July 2002 Presented: “Autoantibodies to blebs and apoptotic bodies”, at FASEB Summer Conference on “Apoptosis and Immunity”, Tucson, AZ
- Sept. 2002 Invited lecturer on: “B cell autoantigens arise during apoptosis”, at the NATO Advanced Studies Institute Conference on “Frontiers In Autoimmunity”, Keszthely, Hungary
- Sept. 2002 Invited lecturer on: “Receptor editing, tolerance, and autoimmunity”, at the NATO Advanced Studies Institute Conference on “Frontiers In Autoimmunity”, Keszthely, Hungary
- Dec. 2002 Invited lecturer on: “Apoptosis as the provider of autoantigens”, at B Cell Research joint conference for The Scripps Research Institute and the University of California, San Diego, San Diego, CA
- Feb. 2003 Invited lecturer on: “Fate of autoantigens in T cell apoptosis”, for Undergraduate Honors Thesis Programme, Princeton University, Princeton, NJ
- Mar. 2003 Invited lecturer on: “Autoantibodies to apoptotic cells”, at the “Workshop on the Genetics and Mechanisms of Autoimmunity” Princeton University, Princeton, NJ
- Aug. 2003 Presented on: “Apoptotic cells as targets for autoreactive B cells”, at the inaugural Gordon Research Conference on “Clearance of Apoptotic Cells by Phagocytes: Mechanisms and Consequences”, New London, CT
- Oct. 2003 Keynote Address on: “Apoptotic cells provide fuel for autoimmune disease”, at the “35<sup>th</sup> Annual Meeting of the Croatian Immunological Society”, Brijuni, Croatia
- Nov. 2003 Invited lecturer on: “Autoimmune disease targets in apoptotic cells”, at the “Workshop on Apoptosis in Autoimmunity”, University of Maryland, Baltimore, MD
- Apr. 2004 Invited lecturer on: “Apoptosis: Brake or Accelerator for Systemic Autoimmunity?”, at the Gwenn Knapp Center for Lupus Research at the University of Chicago: “Chicago, IL
- Nov. 2004 Presented departmental seminar on: “Apoptosis and the onset of systemic autoimmunity”, in the Department of Molecular Sciences, University of Tennessee, Memphis, TN
- Apr. 2005 Presented seminar on: “Mouse Models for Studies on Apoptosis and Autoimmunity”, in the Center of Excellence for Connective Tissue Diseases, University of Tennessee, Memphis, TN
- Sep. 2005 Invited lecturer on: “Optimizing mouse strains for studies of B cell autoimmunity”, at the Fox Chase Cancer Center Research Conference, Philadelphia, PA
- May 2006 Invited lecturer on “Apoptosis, autoimmunity, and citrullinated autoantigens”, at the Gwenn Knapp Center for Lupus Research at the University of Chicago Chicago, IL
- Aug. 2006 Invited lecturer on: “The role of cell death in autoimmunity: Implications for immunotherapy of cancer”, as part of the Hematology/ Oncology Training Program at the University of Tennessee Health Science Center, Memphis, TN
- Oct. 2006 Invited presentation on: “Citrullinated histones: cellular origin and autoimmune potential”, at the 6<sup>th</sup> Annual Lupus Research Institute Scientific Conference, New York City, NY

- Dec. 2006 Invited lecture on: “Murine lupus autoantibodies react with apoptotic cells”, at the Feinstein Institute for Medical Research, Manhasset, NY.
- Apr. 2007 Invited presentation on: “Apoptosis, Subcellular Particles, and Autoimmunity”, at the 15<sup>th</sup> Annual Meeting of the Henry G. Kunkel Society at the Rockefeller University, NY.
- Apr. 2007 Invited presentation on: “Is deimination of histones a way to break tolerance?”, at the UT Rheumatology Research Retreat at Kentucky Lake, KY
- Oct. 2007 Invited presentation on “Production and autoimmune potential of deiminated histones”, at the 7<sup>th</sup> Annual Lupus Research Institute Scientific Conference, New York City, NY
- April 2008 Invited presentation on: “Apoptosis, Subcellular Particles and Autoimmunity”, at the Gwenn Knapp Center for Lupus Research, University of Chicago, Chicago. IL.
- Oct. 2008 Invited lecture on: “NETs and autoantibodies to deiminated histones”, at the 8<sup>th</sup> Annual Research Conference of the Lupus Research Institute, New York City, NY
- Apr. 2009 Presented on: “Role of apoptosis in shaping B cell responses to nuclear antigens”, in the Immunology Training Program at Boston University, Boston, MA.
- Oct. 2009 Invited lecture on: “SLE autoantibodies recognize histone H1.2 citrullines produced by PAD4 in response to inflammation”, at the 9<sup>th</sup> Annual Research Conference of the Lupus Research Institute, New York City, NY
- Feb 2010 Presented seminar on: “Citrullinated histones: roles in autoimmunity and neutrophil epigenetics” Program in Rheumatology, Boston University School of Medicine, Boston, MA
- Feb 2010 Invited seminar on: “Receptor editing as a prelude to autoimmunity” graduate program in immunology and Knapp Center for Immunology Research, University of Chicago, Chicago, IL
- Mar. 2010 Presented on: “Histone Deimination: Role in Autoimmunity and Neutrophil Biology”, on board of MS Trollfjord as part of the 6<sup>th</sup> International Workshop on Anti-DNA Autoantibodies, University of Tromso, Norway.
- Apr. 2010 Invited lecture on: “B Cell-Intrinsic Formation of Immune Complexes”, in Department of Medicine, Temple University, Philadelphia, PA
- Apr. 2010 Invited lecture on: “Citrullinated Histones: Roles in Autoimmunity and Neutrophil Biology”, in Department of Medicine, Temple University, Philadelphia, PA
- Apr. 2010 Presented lecture on: “Endogenous Formation of Immune Complexes in B Cells”, by Invitation for the 18<sup>th</sup> Annual Meeting of the Henry Kunkel Society, Rockefeller University, New York City, NY
- Oct. 2010 Invited talk on: “Autoantigens in Unusual Places: How Anti-Glycosaminoglycans Avoid Receptor Editing”, for the Knapp Symposium on “The Antigen Targets of Autoimmune Disease”, University of Chicago, Chicago, IL
- Nov. 2010 Invited seminar on: “Histone Deimination: Roles in Autoimmunity and Neutrophil Biology”, Department of Pathology and Microbiology, University of Nebraska Medical Center, Omaha, NE

- Jan. 2011 Presented seminar on: "Histone Deimination: Roles in Autoimmunity and Neutrophil Biology", Department of Biochemistry and Molecular Biology, Penn State University, University Park, PA
- Oct. 2011 Invited talk on: "Stimulation of Autoreactive B Cells by Apoptotic Bodies", Annual Research Conference of the Lupus Research Institute, New York City, NY
- Oct. 2012 Invited seminar on: "Impact of Neutrophil Biology in Autoimmunity", Endocrinology Grand Rounds, Department of Medicine, UTHSC, Memphis, TN
- Jan. 2013 Visiting Associate Professor, Department of Medicine, University of Massachusetts, School of Medicine, Worcester, MA, hosted by: Ann Marshak-Rothstein, Ph.D.
- Feb. 2013 Invited talk on: "Lupus and Infections", Lupus Foundation of America, Memphis Chapter, as part of patient education series, Memphis, TN
- May 2013 Invited presentation on: "Oral Bacteria and Arthritis", as part of the Rheumatology Research Conferences, Memphis Veterans Administration Medical Center, Memphis, TN
- Feb 2014 Invited presentation on: "Neutrophil Swarms", as part of the Rheumatology Research Conferences, Department of Medicine, UTHSC, Memphis, TN
- Mar 2014 Oral presentation on: "Citrullination of autoantigens: From diagnostic markers to pathogenetic mechanisms". 9<sup>th</sup> International Congress on Autoimmunity, Nice, France
- Aug. 2014 Organizer for first Lupus Research Meeting at UTHSC, presented on "Why Memphis?" Department of Microbiology, Immunology and Biochemistry.
- Nov. 2014 Keynote speaker at "NETosis and Citrullination in Autoimmune Disease", presented on "Regulation of Neutrophil Extracellular Trap Release", University of Michigan, Ann Arbor, MI.
- May 2015 Invited Seminar, presented on: "Neutrophil Innate Responses as Triggers of Autoimmunity". University of Basel, Basel, Switzerland.
- May 2015 Invited Oral Presentation at the Symposium on Lupus Research and Clinics. "Potential role of neutrophils in lupus." Convened by the CNRS, Universite du Strasbourg, France.
- June 2015 Invited Oral Presentation at the Gordon Research Conference on Apoptotic Cell Recognition and Clearance, titled: "Histone deimination: A post-translational modification linking infection, inflammation and autoimmunity." Biddeford, Maine.
- Nov. 2015 Invited Oral Presentation at the Basic Science Satellite to the Annual Meeting of the American College of Rheumatology, talked on: "Neutrophil extracellular traps (NETs) and anti-citrullinated protein antibodies (ACPA).", San Francisco, CA.
- Feb. 2016 Invited Seminar at the Southwest College, on: "Neutrophil cell death in health and autoimmunity", Memphis, TN.
- Sept. 2016 Invited Oral Presentation at the 1<sup>st</sup> International Workshop on NETosis, titled: "Neutrophils: Insights from PAD4, Citrullination and ACPA", Erlangen, Germany.
- Oct. 2016 Invited Seminar at the Shelby County Health Department, on: "Neutrophils: First Responders and Arsonists of the Immune System?", Memphis, TN.
- Nov. 2016 Invited Seminar at the University of Memphis, on: "Neutrophils: First Responders and Arsonists?" Memphis, TN.

## **COMMITTEES AND OFFICES HELD**

### **Ph.D. Thesis Committees**

- 2004 - 2008 Mohammed Nooh, candidate in Molecular Sciences, UTHSC, Memphis  
2003 - 2008 Timothy Hayes, candidate in Molecular Sciences, UTHSC, Memphis  
2002 - 2007 K. S. Karthik Kumar, candidate in Molecular Sciences, UTHSC, Memphis  
2001 - 2006 Christy Lavine, Ph.D. in Molecular Sciences, UTHSC, Memphis, currently postdoctoral fellow in Molecular Sciences at UTHSC  
2001 - 2005 Muthiah Kumaraswami, Ph.D. in Molecular Sciences, UTHSC, Memphis, currently postdoctoral fellow at University of Texas, MD Anderson Cancer Center, Houston, TX  
2001 - 2004 Yongkai Mo, Ph.D. in Molecular Sciences, UTHSC, Memphis, currently postdoctoral fellow at the Albert Einstein College of Medicine in New York, NY  
2001 - 2004 Ajit Kulkarni, Ph.D. in Molecular Sciences, UTHSC, Memphis, currently postdoctoral researcher at the University of Rochester  
2001 - 2004 Ramykaram Aziz, Ph.D. in Molecular Sciences, UTHSC, Memphis, currently Assistant Professor of Pharmacology, Cairo University, Egypt  
2001 - 2004 Meredith Steeves, Ph.D. in Molecular Sciences, UTHSC, Memphis, currently postdoctoral fellow at the St. Jude Children's Research Hospital in Memphis, TN  
1995 - 2000 Jennifer Bracy, Ph.D., in Transplantation Research, Harvard University, Boston, MA  
1994 - 1997 Denise LaTemple, Ph.D., currently Vice-President, Scientific Services, Curatio Institute, Exton, PA  
1994 - 1997 Le Wang, Ph.D., currently postdoctoral researcher/fellow at the Yale University School of Medicine, New Haven, CT  
1993 - 1996 Xiao He, Ph.D., currently postdoctoral research associate at the Fox Chase Cancer Center, Philadelphia, PA  
1991 - 1996 Jing Li, Ph.D., currently postdoctoral researcher/fellow in Pathology at the College of Physicians and Surgeons, Columbia University, New York, NY  
1992 - 1996 Timothy Henion, Ph.D., currently Res. Assistant Professor at the Eunice Kennedy Shriver Center in Cell Biology, University of Massachusetts Medical School, Waltham, MA

### **Departmental Committees**

- 2000 - Pres. Member, Space and Resources Committee  
2003 - 2006 Coordinator for Molecular Sciences Seminar Series  
(organized and administered weekly seminar schedule with over 50 out-of-town visiting scientists, and presenters from UTHSC, University of Memphis, and St. Jude CRH)  
2002 - 2003 Member and Chair, 1<sup>st</sup> Year Ph.D. Student Examination Committee  
(organized and administered comprehensive graduate student written examinations)  
1991 - 2000 Member, Graduate Senate  
1995 - 2000 Member, Graduate School Standing Committee on Student Affairs  
1995 - 2000 Member, Biomedical Graduate Education Committee  
1995 - 2000 Coordinator, Graduate Program in Microbiology and Immunology  
1995 - 2000 Member, M.D.-Ph.D. Student Recruitment Committee  
1992 - 2000 Member, Graduate Student Recruitment Committee  
1993 - 1994 Member, University Computer Infrastructure Committee

### **College of Medicine Committees**

- 2009 - Pres. Member, Institutional Biosafety Committee



## **Grant Advisory Committees**

- 2014-2016 Reviewer for the Lupus Panel of Peer-Reviewed Medical Research Program, a division of Congressionally Directed Medical Research Programs administered by the Department of Defense
- 2014 Reviewer for Grant Applications for the Medical Research Council (UK)
- 2014 Reviewer for Grant Applications for the Kentucky Science & Technology Corporation
- 2013 Reviewer for the NIAID “Autoimmunity Centers of Excellence, Clinical and Basic Research Program”, NIH review panel, November 2013
- 2012 Reviewer for the Clinical Trial Applications for the Peer-Reviewed Medical Research Program, USAMRMC
- 2006 - Pres. Grant Reviewer, Lupus Research Institute
- 2012 - 2013 Reviewer for the Swiss National Science Foundation
- 2008 - 2010 Chair, Clinical Immunology Study Section B, Arthritis Foundation
- Sept. 2008 Reviewer on Lupus Panel of the Peer-Reviewed Medical Research Program, USAMRMC
- 2006 - 2007 Vice-Chair, Clinical Immunology Study Section, Arthritis Foundation
- 2005 – 2012 Foreign Reviewer for the Research Council of Norway
- 2007 – 2009 Overseas Reviewer for Research Grants Council of Hong Kong
- 2001 - 2005 Member, Immunology & Microbiology I Study Section, American Heart Association
- April 2003 Member, NIAMS Special Emphasis Panel “Systemic Autoimmune Disease”
- Nov. 1997 Ad hoc reviewer, Allergy, Immunology and Transplantation Research Study Section
- Nov. 1995 Member, NIAID Special Emphasis Panel "Interdisciplinary Programs in Autoimmunity"
- Prior to 1995 Merit Application Reviewer, Department of Veterans' Affairs  
Reviewer, The Arthritis Society (Canada)  
Reviewer, Medical Research Council of Canada  
Reviewer, The Wellcome Trust (United Kingdom)  
Reviewer, The Lupus Foundation of Philadelphia

## **EDITORIAL APPOINTMENTS**

- 2015 - 2016 Guest Editor, Frontiers in Immunology, “NETosis 2: The Excitement Continues”
- 2013- Pres. Editorial Board: Journal of Drug Therapy Insights
- 2012 - Pres. Senior Editor, American Journal of Clinical and Experimental Immunology
- 2012 - 2013 Guest Editor, Frontiers in Immunology, prepared a collection of 22 papers on NETosis
- 2001 – Pres. Section Editor, BMC Biotechnology (open access journal)
- 2002 – Pres. Core Reviewer, BMC Immunology (open access journal)
- 1997 – Pres. Editor, Frontiers in Bioscience (electronic biology and medicine journal)
- 1999-2003 Associate Editor, The Journal of Immunology

## **Journal Review Assignments**

- Annals of the Rheumatic Diseases
- Arthritis and Rheumatism
- Arthritis Research & Therapy
- Autoimmunity
- Biochemical and Biophysical Research Communications
- Biochimica et Biophysica Acta
- Blood
- BMC Biotechnology
- Cell Death and Differentiation
- Cell Reports
- Clinical Epigenetics
- Critical Reviews in Immunology
- Drug Target Insights
- European Journal of Immunology
- European Journal of Clinical Investigation
- Gene
- Immunology and Cell Biology
- Immunology Letters
- Journal of Biological Chemistry
- Journal of Cell Biology
- Journal of Cell Science
- Journal of Clinical Investigation
- Journal of Experimental Medicine
- Journal of Immunology
- Journal of Leukocyte Biology
- Journal of Molecular Biology
- Journal of Rheumatology
- Nature Biotechnology
- Nature Immunology
- Nature Reviews Immunology
- PLOS One
- Proceedings of the National Academy of Sciences USA
- Protein Expression & Purification
- Science Translational Medicine

## **OTHER PROFESSIONAL ACTIVITIES:**

### **Community Service:**

- Oct. 2000 Recipient of Certificate of Appreciation from the Lupus Foundation of America, Memphis Chapter, for presenting to Lupus families on the advances in SLE research
- Nov. 2005 Advised LFA, Memphis Chapter, on joint action with Lupus Research Institute of New York, and in lobbying efforts for meeting with TN delegation to the US Senate
- Oct 2008 Certificate of Appreciation from the Lupus Foundation of America, Memphis Chapter, Presented at the 31<sup>st</sup> Annual Lupus Medical Symposium, Memphis, TN
- Nov 2010 Member, Institutional Biosafety Committee, Rhodes College, Memphis, TN

### **Regional Committees and Organizations**

- Nov. 1996 Co-chairman of the Philadelphia Autoimmunity Colloquium.
- Nov. 1994 Co-chairman of "Transplantation, Tolerance and Autoimmunity" workshop at the 15th Annual Philadelphia Immunology Conference.
- Oct 2010 Co-Organizer of Workshop on "Target Antigens in Autoimmunity", Knapp Center for Immunology Research, University of Chicago, Chicago, IL

## **RESEARCH SUPPORT**

### **Current**

Lupus Research Institute Total Direct Costs: Duration of Award:	“CD19-Targeted Cytotoxic T Cells for Lupus Therapy” \$300,000 February 2015 – January 2018
1 RO1 EY022706-01 (Iannaccone, PI) Total Direct Costs: Duration of Award:	“Autoimmunity and Age-Related Macular Degeneration” \$1,250,000 September 2012 – August, 2018
Methodist/West Clinic (Radic, PI) Total Direct Costs: Duration of Award:	“Design and Testing of Autologous Immunotherapies for Breast Cancer” \$50,000 January 2016-December 2016
CORNET Award 2016 (UTHSC) Total Direct Costs: Duration of Award:	“Scavenger-Receptor-mediated Mechanisms in Age-related Macular Degeneration” \$50,000 May 2016 – April 2017

### **Pending**

NIH (R15): “Neutrophil Response to Tissue Templates in Vitro: Implant  
(Bowlin, PI) Implications”

The major goal of this research is to examine the neutrophil response in terms of neutrophil extracellular trap (NET) formation (process known as NETosis) to three-dimensional regeneration templates with varying yet controlled architecture and composition and the potential impact of this preconditioning event.

NIH (R21): “Designing drug-eluting regeneration templates to down-  
(Bowlin, PI) regulate neutrophil extracellular traps”

The major goal of this research is to examine the capacity of N- $\alpha$ -benzoyl-N5-(2-chloro-1-iminoethyl)-L-ornithine amide (Cl-amidine) eluting electrospun templates in regulating the level of neutrophil extracellular traps (NETs) induced upon neutrophil acute interaction.

NIH (R21): “Chimeric antigen receptor (CAR) therapy for autoimmune  
(Rosloniec, PI) arthritis”

The focus of this proposal is the development of novel chimeric antigen receptor (CAR) T cells that specifically target and eliminate CD4+ autoimmune T cells, and will therapeutically alter the disease course of autoimmune arthritis. The approach is based on the CD8+ T cells that express HLA-DR CAR molecules loaded with an autoantigenic peptide.

### **Past**

Lupus Research Institute Total Direct Costs: Duration of Award:	“Stimulation of Autoreactive B Cells by Apoptotic Bodies” \$300,000 December 2009 – November 2012
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CITG Program: BXD Mice (Radic, PI)	“Initial Exploration of Genetic Variability in Neutrophil Activation and Function” Analysis of 30 BXD recombinant inbred strains
Dana Foundation Program in Human Immunology	“Systemic Analysis of the Autoantibody Profile in SLE”
Total Direct Costs:	\$200,000
Duration of Award:	April 2008 – March 2011
Lupus Research Institute	“Characteristics of Autoimmune Nucleosome Complexes Generated in Apoptosis”
Total Direct Costs:	\$300,000
Duration of Award:	October 2005 – September 2008
UT- RCOE Microbial Pathogenesis	“Citullinated Histones in Infection and Autoimmunity”
Duration of Award:	\$10,000 May 2006 – April 2007
UT- RCOE Diseases of Connective Tissue	“Characterization of hnRNP P2 Binding by Autoantibodies from Mer, Ax1, and Tyro3-Deficient Mice”
Total Direct Costs:	\$20,000
Duration of Award:	April 2005 – March 2006
UT-COM (Bridge Funding)	“Apoptotic Bodies in Tolerance and Autoimmunity”
Total Direct Costs:	\$10,000 (balance of \$3,682 returned to COM)
Duration of Award:	March 2005 – February 2006
NIH-NIAID (AI 054938)	“Isolation of Autoantibodies to Apoptotic Cells”
Total Direct Costs:	\$100,000
Years of Award:	April 2003 – March 2005
UT- RCOE Struct. Biology	“Mechanism of DNA Binding by Anti-DNA Antibody”
Total Direct Costs:	\$39,924
Years of Award:	February 2002 – January 2003
UT- RCOE Diseases of Connective Tissue	“Autoantibodies from Mice with Defects in Lymphocyte Homeostasis”
Total Direct Costs:	\$20,000
Years of Award:	June 2002 – May 2003
NIH-NIA (AG/AI 13071)	"Molecular Changes in Antibody Affinity in the Elderly" (with Dr. Uri Galili as Principal Investigator)
Total Direct Costs:	\$809,596
Years of Award:	February, 1996 - January, 1999
NIH-NIAID (AI 34881)	"Structural Basis for Autoimmune Anti-DNA Specificity"
Total Direct Costs:	\$350,000
Years of Award:	August, 1994 - July, 1999
NIH-NIA (AG 14551-1)	"Suppressing Macrophage Functions in Atherosclerosis"
Total Direct Costs:	\$50,000
Years of Award:	July, 1997 - June, 1998
Arthritis Foundation	"Somatic Affinity Maturation of Autoantibodies"
Total Direct Costs:	\$150,000
Years of Award:	July, 1994 - June, 1997

NIH-NIA (pilot)	"Regulating Macrophage Genes Involved in Atherosclerosis"
Total Direct Costs:	\$14,000
Years of Award:	January, 1997 - June, 1997
Allegheny Singer Research Institute	"Regulation of Differentiation Specific Genes in Murine Osteoblasts"
Total Direct Costs:	\$112,978
Years of Award:	July, 1994 - June, 1996
American Foundation for Aging Research	"Molecular Basis for the Declining Antibody Response in Aging"
Total Direct Costs:	\$24,500
Years of Award:	July, 1994 - June, 1995
Julius Erving Lupus Research Award	"Locating the Site of Negative Selection over Anti-dsDNA B Cells"
Total Direct Costs:	\$10,000
Years of Award:	October, 1992 - June, 1994

### **UT Infrastructure Contributions**

NIH-NCRR	"LSRII Flow Cytometer Facility"
	Dr. Tony Marion, P.I.
	Professor, Molecular Sciences, UTHSC
	\$486,000

## **BIBLIOGRAPHY**

### **Book Chapters:**

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