CURRICULUM VITAE

Janko Nikolich-Žugich, M.D., Ph.D.

born Janko Nikolić; changed name to Nikolić-Žugić upon marrying in 1985; Name:

phoneticized to Nikolich-Žugich in 2000.)

Education:

Ph.D. 1993 Belgrade University Medical School - Immunology

Thesis: "Phenotypic correlates of T cell development in the thymus" (Mentor:

Prof. M.L. Lukić)

M.Sc. 1989 Belgrade University Medical School - Immunology

Thesis: "Immunostimulatory properties of the Herpes Simplex Virus

glycoproteins" (Mentor: Prof. M.L. Lukić)

[Masters thesis was submitted and approved in 1987, and Ph.D. thesis in 1990. Both defenses were substantially delayed, owing to the wars in former Yugoslavia].

> 1984-1985 Medical Internship, Belgrade University Medical School

> **M.D**. 1984 Belgrade University Medical School (G.P.A. 9.53/10.00)

Predoctoral and postdoctoral training:

<u>Postdoctoral</u>	1987-1990	Immunology, Laboratory of Dr M.J. Bevan, Department of Immunology, Research Institute of Scripps Clinic
	1984-1986 and 1987	Immunology, Institute for Microbiology and Immunology, Laboratory of Dr M.L. Lukić, Belgrade University Medical School [Discontinued between 3/1986-2/87 for one year obligatory military service.]
<u>Predoctoral</u>	1981-1984	Immunology, Laboratory of Dr. M.L. Lukić, Institute for Microbiology and Immunology, and Laboratory of Dr. Marija Mostarica-Stojković Institute for Biological Research Belgrade University Medical School
	1982 &1983	Immunology, Laboratory of Dr. Henry H. Wortis Department of Pathology, Tufts University School of Medicine, Boston, MA

Positions and Appointments:

2008-present	Chairman and Professor (Tenured), Department of Immunobiology, College of Medicine, University of Arizona, Co-Director, Arizona Center on Aging, University of Arizona, Elizabeth Bowman Professor in Medical Research, Professor of Medicine, College of Medicine, Professor of Nutritional Sciences, College of Agriculture and Life Sciences Professor, Graduate Interdisciplinary Program in Genetics, Graduate College Professor, Graduate Interdisciplinary Program in Neuroscience, Graduate College Member, BIO5 Institute Member, Arizona Cancer Center Member, Arizona Arthritis Center University of Arizona, Tucson, AZ Affiliate Scientist, Oregon National Primate Research Center, Beaverton, OR
2001-2008	Professor (Tenured), Department of Molecular Microbiology and Immunology, School of Medicine, Oregon Health Sciences University (OHSU), Portland, OR Senior Scientist, OHSU Vaccine and Gene Therapy Institute Senior Scientist, Division of Pathobiology, Oregon Regional Primate Research Center
1996-2001	Associate Member, Immunology Program, Head, Laboratory of T Cell Development, Memorial Sloan-Kettering Cancer Center, New York, NY Associate Professor The Weill Graduate School of Medical Sciences of the Cornell University, New York, NY
1994-1996	Assistant Professor Division of Molecular Medicine Cornell University School of Medicine, New York, NY
1990-2000	Head, Flow Cytometry Core Facility Memorial Sloan-Kettering Cancer Center, New York, NY.
1990-1996	Assistant Member, Immunology Program Head, Laboratory of T Cell Development Memorial Sloan-Kettering Cancer Center, New York, NY Assistant Professor Cornell University Graduate School of Medical Sciences, New York, NY

1987-1990 Research Associate

Department of Immunology

Research Institute of Scripps Clinic, La Jolla, CA.

Postdoctoral Fellow 1984-1986

and 1987

Institute for Microbiology and Immunology
Belgrade University Medical School, Belgrade, Yugoslavia.
[Discontinued training March 1986-February 1987 for one year

obligatory military service.]

1982-1983 Teaching Fellow

Institute for Microbiology and Immunology

Belgrade University Medical School, Belgrade, Yugoslavia.

Licenced Physician: Yugoslavia/ Serbia Year: 1985. Place of Issue: Belgrade, Yugoslavia.

Societies: American Association of Immunologists (1990-present); The Harvey Society, (1991-2001); The New York Academy of Sciences, 1993; American-Yugoslav Medical Society, 1995-2000 (Chairman, Scientific Committee, 1997); American Aging Association (AGE; 2002-present; Education committee 2004-2007; Board Member, 2007-present; President 2009-10; Chairman of the Board 2014-present); The Henry Kunkel Society (2003-present); Gerontological Society of America (GSA; 2009-present, President-elect of the Biological Section for 2017)

Honors and Awards:

Dean's list, 1980, 1983.

Editorial Board Awards for the best scientific paper, the student journal "Medicinski Podmladak", Belgrade, 1983, 1984.

Diploma for the best foreign presentation at the 11th International Student Scientific Conference, Debrecen, Hungary, 1984.

Postdoctoral Fellowship, Scientific Council of the Republic of Serbia, 1984-1986.

AAI Travel Assistance Award to attend the 7th International Congress of Immunologists Berlin, 1989.

Pew Scholar in the Biomedical Sciences, 1991-1995.

Louise and Allston Boyer Young Scientist Award, MSKCC, 1998.

Who's Who in Medicine and Healthcare, 2002-present.

Visiting Professor, Belgrade University Medical School, Belgrade, Serbia, 2003-present Elizabeth Bowman Professor in Medical Research, University of Arizona, 2008-present President, American Aging Association (2009-10)

Member, American Federation for Aging Research (AFAR)'s National Scientific Advisory Council (NSAC), 2008-present

Distinguished Lecturer, Radiation Effects Research Foundation, Hiroshima, Japan, June 19, 2009.

Visiting Professor, Austral-Asian Society for Immunology, 2009-10

Honorary Member, Serbian Immunological Society, 2009-present (Acceptance Lecture given June 2010)

Visiting Professor, University of Kragujevac, Serbia, 2012-present

Fellow, Gerontological Society of America, 2015-present

Lingenfelter Lecturer – Arizona Geriatric Society, Oct. 30, 2015

Fellow, American Aging Association, 2016-present

Professional activities:

Conferences:

Speaker, 7th International Congress of Immunologists, W. Berlin, Germany, July 31-August 5, 1989

Speaker, Gordon Research Conference on Immunobiology and Immunochemistry, Oxnard, CA, March 5-9, 1990

- Speaker, Joint AAI and ASMB Meeting, New Orleans, June 3-6, 1990
- Invited Speaker, Arden House Conference: "Immunological self-recognition", Harriman, NY, July 5-8, 1990
- Speaker, FASEB Meeting, Annaheim, CA, April 5-9, 1992
- Invited Speaker, "Myasthenia gravis and related disorders: Experimental and Clinical aspects", Washington, DC, April 11-13, 1992.
- Chairman, Immunology session, The 9th PEW Scholars Annual Meeting, Cozumel, Mexico, March 16-21, 1994
- Chairman and Speaker, Immunology session, The 10th PEW Scholars Annual Meeting, Puerto Rico, March 11-15, 1995
- Speaker, 9th International Congress of Immunologists, San Francisco, CA, July 23-29, 1995
- Invited Speaker, 1st International conference on the thymus "ThymOz", Heron Island, Australia, October 11-16, 1995
- Invited Speaker, 1st Balkan Immunology Conference, Belgrade, Yugoslavia, November 29-December 2, 1995
- Chair, session on T cell Selection, and Invited Speaker, 2nd International T cell conference "ThymOz", Heron Island, Australia, March 25-29, 1998
- Invited Speaker, Experimental Biology >99 FASEB meeting, Washington, D.C. April 17-21, 1999
- Invited Lecturer, Specialist Teaching Symposium "Lymphocyte Development and Function", Monash Medical School, Melbourne, Australia, April 8, 2000.
- Scientific Committee Member and Speaker, 3rd. International T cell conference "ThymOz", Heron Island, Australia, April 11-16, 2000
- Jury Member, Student/Postdoctoral Research Day Competition, Clinical Research Institute of Montreal, Montreal, Canada, April 28, 2000
- Speaker, AAI 2000 meeting, Seattle, WA, May 12-16, 2000
- Speaker, Experimental Biology '01 FASEB meeting, Orlando, FL, 3/31-4/4, 2001
- Organizer & Speaker, 1st International T-cell conference "ThymUS", San Juan, PR, 11/2-11/7/2001
- Speaker, 31st Annual Meeting, American Aging Association, San Diego, CA, June 7-10, 2002
- Scientific Committee Member, Session Chair and Speaker, 4th International T cell conference "ThymOz", Heron Island, Australia, April 1-6, 2003
- Invited Speaker, NIA Workshop "Immunology and Aging", Bethesda, MD, May 2003.
- Speaker, 32st Annual Meeting, American Aging Association, Baltimore, MD, June 6-9, 2003
- Invited Speaker, Dubai International Genetic Conference, Dubai, UAE, March 19-21,2004 Dubai, UAE
- Invited speaker, 12th Annual Henry Kunkel Society Meeting, New York, NY, May 3-5 2004 Invited speaker, NIAID Workshop "Immunity and Biodefense in Special populations", Bethesda, MD, May 7-8, 2004.
- Speaker, 33st Annual Meeting, American Aging Association, St. Petersburg, FL, June 4-7, 2004
- Selected speaker, 12th International Congress of Immunology, Montreal, Canada, July 18-23, 2004
- Session Chair and Invited Speaker, 4th Balkan Immunology Congress, Istanbul, Turkey, September 5-8, 2004
- Session Chair and Invited Speaker, "Immunology and Aging" NIA Workshop, Saranac Lake, NY, October 2-5, 2004

- Organizer & Speaker, 2nd International T-cell Conference "ThymUS 04", San Juan, PR, 11/5-10/2004
- Invited Speaker, 4th International Kyoto T-cell Conference, Kyoto, Japan, 4/6-10/2005
- Invited Participant, Kirin IDEASHOP workshop on T-cell repertoire in health & disease, FOCIS meeting, Boston, MA, May 2005
- Invited Speaker, International Workshop on Differentiation and Immunosenescence, Edward Jenner Institute, Compton, UK, October 2005
- Invited Speaker, 58th Annual meeting of the Gerontological Society of America, Orlando, FL, November 2005
- Invited Speaker, Keystone Symposium "Viral immunity: from basic mechanisms to vaccines", Steamboat Springs, March 28-April 2, 2006
- Invited Speaker and Scientific Committee Member, 5th International T cell conference "ThymOz", Heron Island, Australia, April 5-12, 2006
- Invited Speaker and Discussant, NCRR Workshop "Genetic tools for optimizing the use of rhesus macaques in translational research" Bethesda, MD, April 19-20, 2006
- Invited Speaker, Immunology 2006 American Association of Immunologists Annual Meeting, NIA –sponsored Symposium "How aging impacts Immunity", Boston, MA, May 12-16, 2006
- Invited Speaker, 35th Annual Meeting, American Aging Association, Boston, MA, June 3-6, 2006
- Scientific Organizing Board Member and Invited Speaker, International Meeting "Aging Research in Immunology: Impact of Genomics", Paris, France, September 4-5, 2006
- Invited Speaker, 35th Autumn Immunology Conference, Chicago, IL, Nov. 17-20, 2006 Invited Speaker, Edmonton Aging Symposium, Edmonton, Canada, Mar. 30-31,2007
- Selected Speaker, The Henry Kunkel Society 15th Annual Meeting, New York, NY April 24-26, 2007
- Ad hoc Speaker, 12 International Association of Biomedical Gerontology "Caloric restriction and immune senescence in primates:, Spetses Island, Greece, May 20-24, 2007
- Selected Speaker, 36th Annual Meeting, American Aging Association, San Antonio, TX, June 2-4, 2007
- <u>Co-organizer, Speaker and Session Chair, Pennington Symposium "Neuro-immune modulation and inflammation in aging"</u>, Baton Rouge, LA, Dec. 2-5, 2007
- Selected Speaker, Keystone Symposium "Viral Immunity", Keystone, CO, Jan. 20-25, 2008
- Third International Conference on Primate Genomics: Primate Genomics and Human Deseases; Seattle, WA, Apr. 13-16, 2008
- Invited Speaker, U.S.-Japan Cooperative Medical Science Program: Workshop on Aging & Immunosenescence, San Francisco, CA, Jun. 18-21/2008
- Invited Speaker, 2nd European Federation of Immunological Societies/EJI Belgrade Symposium /Postgraduate Course: Inflammation at the Interface of Innate and Acquired Immunity, Belgrade, Serbia, Sept. 7-10/2008
- Organizer & Session chair, 3rd International Conference on Lymphopoiesis, T cell differentiation and Immune Reconstitution "ThymUS 08", San Juan, PR, Nov. 9-14/2008
- Invited Speaker, ASP-IDSA Workshop on Immunization of Older Adults, Washington, DC, Dec. 15-16, 2008
- Invited Speaker, CDC/NIA-sponsored meeting "Immune senescence and vaccination in older adults" Atlanta, GA, Feb. 2-5, 2009.

- Invited Speaker, Gordon Research Conference Biology of Aging, Ventura, CA, Feb. 15-20, 2009
- Invited Speaker and Session co-chair, NIA Symposium "How Aging Impacts Vaccine Efficacy", 96th Annual Meeting of the American Association of Immunologists, Seattle, WA, May 8-12, 2009
- Session Chair, 38th Annual Meeting of the American Aging Association, Scottsdale, AZ, May 30-June 1, 2009
- Invited Speaker and Session Chair, 5th International Kyoto T-cell Conference, Kyoto, Japan, June 1-4, 2009.
- Invited Speaker and Session Chair, 4th SENS (Strategies to Engineer Negligible Senescence) Conference, Cambridge, UK, Sept 3-7, 2009
- Invited Speaker and Session Chair, Fondation Merieux Conference "Aging and Immunity", Siena, Italy, Sept. 21-23, 2009
- Session Chair and Speaker, 6th National Research Centers of Excellence in Biodefense and Emerging Infections, Las Vegas, NV, April 11-13, 2010
- Session Chair and co-organizer, Pre-Conference of the American Aging Association, joint with the American Federation for Aging Research and the Gerontological Society of America: Biology of Aging: A meeting of minds to celebrate award-winning science", Portland, OR, June 4, 2010.
- Organizer, 39th Annual Meeting of the American Aging Association (AGE) "Aging and Inflammation: causes and consequences", Portland, OR June 4-7, 2010.
- Session co-Chair and Speaker, "Immunity and Aging" Workshop, 14th International Congress of Immunologist, Kobe, Japan, August 22-27, 2010.
- Session Chair and Speaker, Adaptive Immunity session, 2nd Meeting of the Pacific Northwest Regional Center of Excellence in Biodefense and Emerging Infections, Portland, OR, Sept. 22-23, 2010
- Session Chair and Speaker, 7th European Congress of Biogerontology, Palermo, Italy, Oct. 13-17, 2010
- Invited Speaker, 2nd International Conference on Cytomegalovirus and Immune Aging, Cambridge, UK, December 2-4, 2010.
- Invited Speaker, 7th National NIAID Research Centers of Excellence in Biodefense and Emerging Diseases, Denver, CO April 3-5, 2011.
- Invited Speaker and Organizer of the US participant contingent of 4 PIs and 8 trainees (obtained a R13 NIA award in support), 14th International Association of Biomedical Gerontology, Brighton, UK, Jul. 11-14, 2011
- Invited Speaker and Session Chair, 5th SENS (Strategies to Engineer Negligible Senescence) Conference, Cambridge, UK, Aug. 31- Sept. 4, 2011
- Invited Speaker, British Society of Immunology Annual Meeting, Liverpool, UK, Dec 5-9th, 2011
- Invited Speaker and Discussion Moderator, 3rd International Conference on Cytomegalovirus and Immune Aging, Cordoba, Spain, March 15-16, 2012
- Invited Speaker and Session Chair, Fondation Merieux Conference "Aging and Immunity", Siena, Italy, April 22-24, 2012
- Invited Speaker and Session Chair, 41st Annual Meeting of the American Aging Association, Ft. Worth, TX June 1-4, 2012
- Organizer & Session chair, 4th International Conference on Lymphopoiesis, T cell differentiation and Immune Reconstitution "ThymUS 12", Miami, FL, Nov. 04-09/2012
- Invited Speaker and Discussion Moderator, 4th International Conference on Cytomegalovirus and Immune Aging, Parma, Italy, March 25-27, 2013

- Session Chair, Block Symposium, 100th Annual Meeting of the American Association of Immunologists, Honolulu, HI, May 3-7, 2013.
- Invited Speaker and Session Chair, 6th International Kyoto T-cell Conference, Kyoto, Japan, June 3-7, 2013.
- Invited Speaker, IBS-AIM International Workshop on T cell Biology and Aging, Pohang, S. Korea, June 09-11, 2013.
- Invited Speaker, Satellite Meeting to the International Congress of Immunology SM3 "Immunology of Ageing", Milan, Italy, August 20-22, 2013
- Invited Speaker, British Society for Research on Ageing Annual meeting, Norwich, UK, Sept. 3-5, 2013.
- Invited Speaker and Session Chair, 6th SENS Foundation Meeting, Cambridge, UK, Sept. 4-8, 2013
- Invited Speaker, 1st Vaccine and Gene Therapy Institute-Florida Symposium: "Intergrative approaches to the Immunotherapy of Cancer and Infectious Diseases", Port St. Lucie, FL, Nov 13-15, 2013
- Invited Panelist, "Societal Implications of Delaying Aging" panel, Gerontological Society of America 2013 Annual meeting, New Orleans, LA, Nov. 20-24, 2013
- Invited Speaker and Scientific Committee Member, 5th International T cell conference "ThymOz", Heron Island, Australia, April 2-7, 2014.
- Organizer and Speaker, UA Miraval Institute Symposium "Preparing for an Aging World: Living Beyond 100", Miraval Resort, Catalina, AZ, April 27-29, 2014
- Invited speaker, Radboudumc Summer Frontiers Symposium "Age and Immunity", Nijmegen, The Netherlands, June 12-13, 2014
- Invited speaker, San Antonio Nathan Shock Center Meeting: "The Microbiome in Aging and Age-related diseases", October 16-19, 2014, Bandera, Tx
- Invited speaker, Gerontological Society of America Annual Meeting, Washington, DC, November 5-9, 2014
- Invited speaker and session chairman, 5th International Conference on Cytomegalovirus and Immune Aging, Nov. 20-22, Amsterdam, the Netherlands
- Workshop organizer and panelist, "Guiding a career in biomedical research", University of Belgrade School of Medicine, December 22-24, 2014
- Invited speaker, Venice Thymus Conference, April 9-12, 2015, Venice, Italy
- <u>Co-Organizer, session chair and speaker</u>, EFIS Belgrade 2015, May 24-27, Arandjelovac, Serbia
- Organizer, speaker and session chair, Belgrade Workshop on Immunity and Autoimmunity a tribute to Profs. Marija Mostarica-Stojkovic and Miodrag L. Lukic, May 28-29, 2015, Belgrade, Serbia
- Invited Speaker, Michael J. Bevan 70th Birthday and Retirement Symposium, University of Washington, Seattle, Aug. 2-4, 2015
- Invited Speaker and Session Chair, "Immunity and Aging" Satellite Meeting to the 4th European Congress of Immunology ECI2015, Vienna, Austria, September 5-6th, 2015
- Lingenfelter Lecture, Arizona Geriatric Society, Phoenix, AZ, October 5, 2015
- Invited Speaker and Session Chair, Fondation Merieux Conference "Aging and Immunity", Siena, Italy, January 11-14, 2016
- Invited Speaker, Ninth Conference of the Caloric Restriction Society, International, Tucson, AZ, May 18-21, 2016
- Invited Speaker, New Fellows Ceremony, 45th Annual meeting of the American Aging Association, Seattle, WA, June 2-5, 2016
- Plenary Speaker, ThymUS International Conference 2016, "One very personal fascination

with T cell repertoire selection", Wailea Beach, Maui, HI, June 5-9, 2016 Invited Speaker, Aegean Conference on Human and Translational Immunology, Rhodes, Greece, Sept. 16-21, 2016.

Invited Speaker, 56th Meeting of the Radiation Research Society, Big Island, Hawaii, Oct. 16-19, 2016.

Invited Seminars and Lectures:

Medical Biology Institute, La Jolla, CA, 1989

Ludwig Institute for Cancer Research, Lausanne, Switzerland, 1989

Basel Institute for Immunology, Basel, Switzerland, 1989

Tufts University Department of Pathology, 1989

Massachusetts Institute of Technology, Cambridge, MA, 1990

Sloan-Kettering Institute, New York, NY, 1990

Columbia University, New York, NY, 1990

New York University, Department of Pathology, New York, NY, 1990

Cornell University, Ithaca, NY, 1991

Loma Linda University, Loma Linda, CA, 1992

Scripps Research Institute, La Jolla, CA, 1992

New York University, New York, NY, 1993

North Shore University Hospital, Manhasset, NY 1993

Serbian Association of Immunologists, Belgrade, Yugoslavia, 1993

University of Washington, Seattle, WA, 1993

Genentech Inc., So. San Francisco, CA, 1993

DNAX Research Institute, Palo Alto, CA, 1993

Massachusetts General Hospital, Charlestown, MA, 1994

Targeted Genetics Corp., Seattle, WA, 1994

Tufts University Sackler School of Biomedical Sciences, Boston, MA, 1995

New York University, Division of Immunology, New York, NY, 1995

University of Medicine and Dentistry of New Jersey, R.W. Johnson Medical

School, Piscataway, NJ, 1995

Fox Chase Cancer Center, Philadelphia, PA, 1995

University of Maryland, Department of Microbiology and Immunology,

Baltimore, MD, 1995

The Walter and Eliza Hall Institute, Melbourne, Australia, 1995

Ludwig Institute for Cancer Research, Lausanne, Switzerland, 1995

Basel Institute for Immunology, Basel, Switzerland, 1995

Laboratory of Viral Diseases, NIAID, NIH, Bethesda, MD, 1996

University of Connecticut Health Center, Farmington, CT, 1996

Holland Laboratory, American Red Cross, Bethesda, MD, 1996

University of Maryland at Baltimore, Baltimore, MD, 1997

Experimental Immunology Branch, NCI, NIH, Bethesda, MD, 1997

Centre d'Immunologie, INSERM/CNRS, Marseille, France, 1997

Ecole Normal Superieure de Lyon, Lyon, France, 1997

Basel Institute for Immunology, Basel, Switzerland, 1997

Walter and Eliza Hall Institute, Melbourne, Australia, 1998

Monash University, Melbourne, Australia, 1998

University of Toronto, Toronto, Canada, 1998

The Scripps Research Institute, San Diego, CA, 1998

National Institute for Medical Research, London, UK, 1999

Department of Anatomy, University of Birmingham, Birmingham, UK, 1999

University of Pittsburgh, Pittsburgh, PA 1999

Mayo Foundation, Rochester, MN, 2000

University of Maryland, College Park, MD, 2000

University of Rochester, Rochester, NY, 2000

Clinical Research Institute of Montreal, Montreal, Canada, 2000

University of Vermont, Burlington, VT, 2000

University of Maryland at Baltimore, Baltimore, MD, 2000

Mt. Sinai Medical Center, New York, NY 2000

Oregon Health & Science University, Portland, OR 2000

The Walter and Eliza Hall Institute, Melbourne, Australia, 2000

Dept. of Microbiology and Immunology, University of Maryland, Baltimore, MD, 2000

Department of Hematology, Papanicolaou Hospital, Thessaloniki, Greece, 2000

Department of Immunology, University of Washington, Seattle, WA, 2001

Roswell Park Cancer Institute, Buffalo, NY, 2001

National Institute on Aging, Baltimore, MD, 2001

NIA Collaborator Meeting "Caloric Restriction in non-human primates", San Diego, CA 2002

Department of Microbiology and Immunology, Belgrade University Medical School, Belgrade, Yugoslavia, 2002

New York University Graduate Program in Immunology, New York, NY 2002

Memorial Sloan-Kettering Cancer Center, New York, NY, 2002

Visiting Lecture, School of Medicine, University of Belgrade, Belgrade, Yugoslavia, 2003

The Walter and Eliza Hall Institute, Melbourne, Australia, 2003

NIA Collaborator Meeting "Caloric Restriction in non-human primates", Baltimore, MD 2003.

Department of Pathology, Washington University, St. Louis, MO, 2004

Faculty of Medicine, UAE University, Al Ain, UAE, 2004

NIA Collaborator Meeting "Caloric Restriction in non-human primates", Portland, OR 2004

Department of Pediatrics, OHSU, Portland, OR 2004

La Jolla Institute for Allergy and Immunology, La Jolla, CA, 2005

University of Nevada, Reno, NV 2005

University of Wisconsin, Madison, WI 2005

University of Belgrade, School of Medicine, Belgrade, Serbia and Montenegro, 2005

National Jewish Center for Immunology and Respiratory Medicine, Denver, CO, 2006

Sidney Kimmel Cancer Center, La Jolla, CA, 2006

University of Montreal, Montreal, Canada 2006

University of Massachusetts, Worcester, MA 2006

Institute on Aging of the Austrian Academy of Science, Innsbruck, Austria, 2006

University of Basel, Basel, Switzerland, 2006

Georgetown University, Washington, DC, 2006

National Institute on Aging, Baltimore, MD, 2006

University of Arizona, Tucson, AZ, 2006

University of Iowa, Iowa City, IA, 2007

University of Belgrade, School of Medicine, Belgrade, Serbia, 2007

University of Parma, Parma, Italy, 2007

University of Vienna, Vienna, Austria, 2007

Special Lecture, College of Medicine, University of Arizona, 2008

Plenary Lecture, 3rd Annual Frontiers in Immunobiology & Immunopathogenesis

Symposium, Tucson, AZ 2008.

Department of Immunology, Duke University Medical Center, Durham, NC, 2008

Department of Medical Biology, University of Arizona College of Medicine, Phoenix, AZ, 2008

Rheumatology Grand Rounds, University of Arizona College of Medicine, Tucson, AZ 2008

Department of Immunology, University College, London, UK, 2009

Department of Immunology, Keio University, Tokyo, Japan, 2009

University of Tokushima, Tokushima, Japan, 2009

Radiation Effects Research Foundation, Hiroshima, Japan, 2009

University of Parma, Parma, Italy 2009

Department of Biomedicine, University of Basel, Basel, Switzerland, 2009

Department of Immunology, University of Toronto, Toronto, Canada 2010

Department of Molecular and Cellular Biology and the Barshop Center for Aging Research, San Antonio, TX, 2010

The Garvan Institute for Medical Research, University of Sydney, Sydney, Australia, 2010

Queensland Institute for Medical Research, Brisbane, Australia, 2010

Walter and Eliza Hall Institute for Medical Research and the University of Melbourne, Melbourne, Australia, 2010

The Kronos Longevity Research Institute, Phoenix, AZ, May, 2010

University of Belgrade School of Medicine and the Serbian Immunological Society, Belgrade, Serbia, June 2010

The National Institute on Aging, Baltimore, MD, January 2011

INSERM/CNRS & The University of Nice, Nice, France, June 2011

University of Belgrade School of Medicine, Belgrade, Serbia, June 2011

Department of Pharmacology, University of Arizona, Tucson, AZ, Sept. 2011

Banner Sun Health Research Institute, Sun City, AZ, March 2012

Department of Experimental Pathology, University of Texas Medical Branch, Galveston, TX, April 2012

Institute for Immunology, University of California, Irvine, April 2012

University of Belgrade School of Medicine, Belgrade, Serbia, June 2012

University of Kragujevac, Belgrade, Serbia, June 2012

Southwest National Primate Research Center, San Antonio, TX, July 2012

The Barshop Institute for Aging Studies, San Antonio, TX, July 2012

Memorial Sloan-Kettering Cancer Center, New York, NY, September 2012

Beckmann Center, Stanford University, Palo Alto, CA, December 2012

University of Belgrade School of Medicine, Belgrade, Serbia, July 2013

University of Kragujevac, Belgrade, Serbia, July 2013

The Doherty Institute, University of Melbourne, Melbourne, Australia, March, 2014

Queensland Institute for Medical Research, Brisbane, Australia, April 2014

University of New South Wales, Sydney, Australia, April 2014

Memorial Sloan-Kettering Cancer Center, New York, NY, May 2014

University of Utrecht, Utrecht, the Netherlands, June 2014

University of Belgrade School of Medicine, Belgrade, Serbia, June 2014

University of Kragujevac, Belgrade, Serbia, June 2014

Ohio State University, Columbus, OH, September 2014

Cincinnati Children's Hospital, Cincinnati, OH, October 2014

University of Miami, Miami, FL, November, 2014

University of Parma, Parma, Italy, April 2015

Mayo Clinic, Scottsdale, AZ, October 2015 University of Belgrade School of Medicine, Belgrade, Serbia, January 2016 University of Kragujevac Medical School, Serbia, January 2016

Reviewer:

Papers: Aging Cell, Cell Host & Microbe, Cellular Immunology; eLife, Experimental Gerontology; Immunity; International Immunology; Journal of Biological Chemistry; Journal of Clinical Investigations, Journal of Experimental Medicine; J. Geront. Biol. Sci.; Journal of Immunology, Journal of Virology, Nature Immunology, Nature Medicine, Nature Reviews, PNAS, Science; etc.

Grants: Israeli Science Foundation (ad hoc, 1995); NIH Immunobiology Study Section (ad hoc 1995;1996; 2003, 2004); NIH Cellular and Molecular Immunology B Study Section (permanent member 2004-2008); NIH Immunological Sciences SS (Ad hoc 1997); Wellcome Trust (1999); NCI Special Emphasis Panel (2000);NIH IDM-A-03 SS (ad hoc - 2011); NIH Fogarty International Research Center (ad hoc, 2000,2001); NIH Cellular Mechanisms of Aging and Development Study section (ad hoc 2013); NIAID & NIA Special Emphasis Panels (1998; 1999; 2002; 2003,2004); NIA P01 Site visit teams 2002, 2003, 2004; Chairman, NIA P01 Site visit team, 2004, 2005; NIA Shock Centers Review (2010; 2014); NIA P01 Review (2010)

Board Memberships:

Board of Directors, American Aging Association (2007-present); Chair of the Board and CEO, American Aging Association, 2014-.

Editorial Boards:

Cellular Immunology, 1996-2015.

Journal of Immunology, Associate Editor, 1998-2002.

Journal of Virology 2008-2014

Gerontology, 2011-2016

Longevity & Healthspan, 2011-2014

AGE: Journal of the American Aging Association, 2004-2012; Associate Editor 2012-Journal of Gerontology:Biological Sciences, Associate Editor. 2007-2016; Editorial Board 2017-

Aging Cell, Associate Editor, 2008-

Rejuventation Research -2009-

PloSPathogens - 2014-

Nutrition and Aging -2015-

NIH Workshop/Advisory Panels (all involve research presentations):

NIA Panel: "Immunology and Aging", Bethesda, MD, 2002;

NIAID panel "Vaccination and protection of Special populations against bioattack", Bethesda, MD, 2004;

NCRR panel: "Genomic and translational tools in the non-human primate research", 2006, Bethesda, MD;

NIA/NIAID joint panel "Thymic atrophy with aging", Rockville, MD, 2007;

NIAID Panel "West Nile: Research Advances in Virology, Immunology and Genetics", Rockville, MD, 2007;

RERF-NIAID Workshop "Radiation and Age-associated Immunosenescence "Hiroshima,

Japan, 2007;

Invited Presentation to the National Advisory Council on Aging, Bethesda, MD, 2008. NIA Biology of Aging Summit (Co-Chair, Infection and Immunity Block), Gaithersburg, MD, 2008

NIAID Kickoff Meeting on the Pacific Northwest Research Center of Excellence in Biodefense and Emerging Diseases, Beaverton, OR, 2009

NIAID Workshop "Advances in West Nile virus research", Washington, DC, 2009.

NIAID/NIA Meeting "Rejuvenating the Aging Immune System", Rockville, MD, 2009 NIAID meeting: "T cell memory", Bethesda, 2010

NIAID/NIA Workshop "Rejuvenating the Aging Immune System", Bethesda, MD, Oct. 5-6, 2011

NIAID Workshop "Immune protection in Special Populations", Bethesda, MD, Jan 27, 2012

RERF-NIAID Workshop "Radiation and Age-associated Immunosenescence", Tokyo, Japan, July 28-31, 2012

NIA-NIH-wide Workshop "Inflammation and Aging", Bethesda, MD, Sept. 6-7, 2012

RERF-NIAID Workshop "Radiation and Age-associated Immunosenescence", Bethesda, MD, April 2013

RERF-NIAID Workshop "Radiation and Age-associated Immunosenescence", Tokyo, Japan, November 2013

NIAID Workshop "Immune protection in Special Populations", Bethesda, MD, May 8, 2014

NIA Workshop "Resilience in Aging Animal Models", Bethesda, MD, August 27, 2014

NIA/NIAID Workshop "Immunity and Aging", Rockville, MD September 8, 2014

NIA/NIAID Workshop "Immunity and Aging", Vienna, Austria, September 4, 2015

RERF-NIAID Workshop "Radiation and Age-associated Immunosenescence", Bethesda, MD, September 18-19, 2015

NIA/NIAID Workshop "Immunity and Aging", Bethesda, MD, October 4, 2016

International Panels and Missions

Embassy of France-organized Mission: Aging and Immunity, Collaborative US-French initiative, October 18-23, 2010

Community outreach lectures/panels:

Lincoln High School, Portland, OR, 2003

Stoller Middle School, Portland, OR, 2004

Stoller Middle School, Portland, OR, 2005

Healthy Aging Forum, Kiewit Auditorium of the AZ Cancer Center, Tucson, AZ, Oct. 2009 Sun City Vistoso Community Lecture, Aging of the Immune System, Oro Valley, AZ, November, 2009

St. Phillip in the Hills Church Community Lecture: Aging of the Immune System, Tucson, AZ, Nov, 2010

Academy Village Community Lecture: Vaccines and aging, Tucson, AZ, Jan., 2011

Mended Hearts Club Community Lecture: Teaching an Old Immune System New Tricks, Tucson Medical Center, Tucson, AZ, April, 2011.

Discussion panel member (out of three panelist) for the movie "How to Live Forever", The Loft Theater, Tucson, AZ, Oct. 13, 2011

Lecture "Biology of aging: Why our bodies grow old and what can we do about it" - part

- of the UA College of Science lecture series "Living Beyond 100's", Jan. 31, 2012 (YouTube Link: <a href="http://www.youtube.com/watch?v="http:/
- M. Kolarac, Belgrade, Serbia, June 7, 2012
- Online lecture "Aging of the Immune System", SENS Research Foundation, Dec. 2013 http://www.youtube.com/watch?v=VVbGGA7ze1c&feature=youtu.be
- Lecture "Biology of Aging, Lifespan and Healthspan", Wiseguise Community Group, Scottsdale, AZ, January 2014

Teaching, mentorship and institutional service:

1. Teaching

Cornell University Graduate School of Medical Sciences (subsequently Weil Graduate

School)

1990-2000 Lecturer, Immunology Course,

1990-1996, 1998, 1999
Quarter I Examiner, Immunology Course
Lecturer, Advanced Topics in Immunology
Lecturer, Core Graduate School Course

1996 Organizer, Immunology Course

1996 Lecturer, Tri-Institutional MD/Ph.D. Course 1995 Lecturer, Molecular Medicine Course

1993 Organizer and Lecturer, Center-wide Course "Theory and

Practice of Flow Cytofluorometry"

OHSU Graduate School:

2002, 2004 Lecturer, Advanced Immunology Course
2001-2008 Ph.D. Program Annual Retreat Presentation
2001-2008 MD/Ph.D./ Program Annual Retreat Presentation

UA Graduate Program in Immunobiology

2009-2013 Course Director, 564 Advanced Topics in Immunobiology

2010 Lecturer, 566 Immunology Course

ArizonaMed (UA Medical Student teaching)

2009-present Lecturer, 2nd Year Infection and Immunity Block (Tucson)

2009 Moderator, Case-Based Instruction 2009-2011 Lecturer, Life Cycle Block (Phoenix) 2011-present Advanced Topics Lecturer (Tucson)

2013-present Life Cycle Block (Tucson)

2. Faculty and Institutional Committees

Cornell University Graduate School of Medical Sciences (subsequently Weil Graduate

School):

1990-2000 Admissions Interviewer, Immunology Program

1990-2000 Admissions Interviewer, Tri-Institutional MD/Ph.D. Program

1993-1998 Chairman, Guest Speaker Committee

1991-1994 Curriculum Committee

1990-1994 Admissions Committee, CUGSMS

1991-1993 Member, Guest Speaker Committee, MSKCC 1994-1997 Institutional Animal Care and Use Committee 1995, 1997 Promotion & Tenure ad hoc committees

1998 Head Veterinarian Search Committee, MSKCC and Cornell

University Medical College

OHSU, OHSU Graduate School and ONPRC:

2001-2008 Admissions Interviewer, MMI and PMCB programs

2002 Qualifying exam reform committee

2003, 2004, 2005 Molecular Microbiology and Immunology Promotion & Tenure

Committee

2003-2008 ONPRC Appointment, Promotion & Tenure Committee

2004 Ad Hoc Animal Use Cost Committee

2001-2008	Preceptor, MMI T32 training grant in Molecular Pathogenesis
2001-2006	Preceptor, OHSU Casey Eye Institute training grant in Immunology
	of the Eye
University of Arizona:	
2008-present	Preceptor, UA Neurobiology T32 Training Grant
2008-present	Arizona Cancer Center Scientific Board Member
2009-10	University of Arizona Vice-President for Research TRIF
	(Technology, Research and Innovation Fund) Strategic Review Panel
2010-present	Arizona Arthritis Center Board of Overseers and Scientific Board Member
2010-2013	Chair, Arizona Arthritis Center Director Search Committee; new director (dr Kwoh) hired in Jan. 2013
2010-present	Strategic Integration Champion (one of 15 in a 6,000 employee,
'	three organization workforce), guiding integration of the College of
	Medicine, the University Medical Center and University Physician
	Health Practice Plan into a single entity, UA Health Network
2011	Member, Special Performance Evaluation Committee for
	Department Head of Physiology
2011-present	Steering Committee, Heads Up (UA Department Heads
·	Organization)
2012-14	Co-Chairman, Heads Up (UA Dept. Heads Organization),
	representing the organization with the President, Provost and the
	UA administration
2013-14	Chair, Senior Vice-President for Research Search Committee
2013-14	Member, Advisory Board to the Senior VP for Health Affairs on
	Precision Health
2013-	Member, University Innovation and Strategy Task Force
2014 -	Co-Founder, "Let's talk Multidisciplinarity" UA Seminar Series and
	Task force
[Accomplishments: C	hanged the UA Handbook of Appointed Personnel following
	University Senate vote, as follows:

OHSU Institutional Award Committee

MMI/VGTI Guest Speaker Committee (chairman)

2004

2001-2008

University Senate vote, as follows:

Appendix A on Shared appointments was promoted to align hiring, appual reviews:

- Appendix A on Shared appointments was promoted to align hiring, annual reviews and promotion reviews.
- Appendix C GIDP letters were expanded to focus on all interdisciplinary collaborations.
- Collaborator letters were revised to emphasize their usefulness in documenting interdisciplinary collaborations.
- Letters to external reviewers were revised to emphasize interdisciplinary collaborations.

Also, UA Vitae (University of Arizona online faculty biographical repository and performance evaluation database) was revised to allow for multiple departmental input on annual reviews.

3. Student Committees

- Admission to Ph.D. Candidacy/Qualifying exam Committee Yiqing Xu (Cornell, 1993); Ruben Dyall (Cornell, 1993); Albert Molano (Cornell,1994); Kimary Kulig (New York University, Dept. of Pathology, 1996); Teodora Staeva (Cornell, 1998); Ilhem Messaoudi, (Cornell, 1998); Standing Qualifying Exam committee, Department of Molecular Microbiology and Immunology, OHSU, 2002-2004 (14 student examinations total)
- Thesis Committee Teodora Staeva (Cornell, 1997-2001); Kimary Kulig (NYU Pathology) (1996-99); Michael Munks, (OHSU, 2001-2003); Vuna Fa (M.Sc., Univ of Arizona, 2008-09); Hao Chen (Univ. of Arizona, 2009); Parvathi Ranganathan (Univ. of Arizona, 2009-10); Lance Nesbit (Univ. of Arizona, 2008-10); Rajalakshmy Ramalingam (Univ. of Arizona, 2009-2012); Neha Deshplande (Univ. of Arizona, 2011-2015)
- Ph.D. Thesis Defense Committee Iris Alroy (Cornell, 1995); Tonya Villafana (Cornell, chairman, 1998); Michael Munks (OHSU, 2003)

4. Mentoring

- Rotation students: Cornell Ruben Dyall 1991; Alberto Molano, 1992; Gregory Stella, 1992; Valeria Tortorelli, 1994; Richard Huard, 1996; Ilhem Messaoudi, 1997; Bidisha Dasgupta, 2000.
- OHSU Anna Lang, 2001; James Brien, 2002; Cortney Hiddlestone, 2003; Erin Fitch, 2005; Stefanie Manzer, 2007; Lila Farrington, 2008.
- University of Arizona Kristin Renkema, 2009; Jason Pugh 2009; Emily Goldberg, 2010; Andrea Tanner, 2010; Nicholas Fox, 2010; John S. Davies, 2012; Nasiha Ahmad, 2015; Alane Dy; 2015Nico Contreras, 2015;

Mentor to students who did not progress to degree:

Andrea Tanner, University of Arizona, 2010-2011 – Link between proliferative and differentiation defects in old mouse T-cells (left laboratory and graduate program in 2011)

Doctorate and Masters Mentor:

- Dr. Ruben Dyall, 1991-1995 Thesis title: "The use of optimal MHC class I binding peptides to study T cell selection, recognition and activation" (Present position Staff Immunologist, Immunology Division, Discovery Oncology Program, Pharmacia-Monsanto, St. Louis, MO)
- Dr. Alberto Molano, 1994-1998 Thesis title "Peptide binding, TCR recognition and intrathymic positive selection by an MHC H-2K^b class I molecule devoid of the central anchor ("C") pocket"
 (Present position Staff Scientist, Department of Nutrition, Tufts University, Boston, MA)
- Dr. Ilhem Messaoudi, 1997-2001 Thesis title "Specificity, kinetics and homeostatic regulation of a cytotoxic T lymphocyte (CTL) response to an immunodominant viral epitope"

- (Present position –Associate Professor, UC Riverside School of Medicine, Riverside, CA)
- Dr. Teodora Staeva (co-mentor with Dr. Leonard P. Friedman), 1998-2001 Thesis title: "Role of Vitamin D3 transcription in T-cell function" (Present position Program Director for Immune Therapies, Juvenile Diabetes Research Foundation)
- Dr. Anna Lang, OHSU, 2001-2007– Thesis title: "Impact of lifelong viral infection on development and maintenance of memory CD8⁺ T-cells" (Present position Medical Student, OHSU, Portland, OR)
- Dr. James Brien, OHSU, 2002-2007– Thesis title: "Immunological basis of age-related vulnerability to viral infection" (Present position Assistant Professor, Department of Microbiology, St. Louis University, St. Louis, MO)
- Nicholas Fox, M.Sc. University of Arizona, 2010-2012 Human immune aging and resistance to the West Nile virus infection (Staff Scientist, Columbia University, New York, NY)
- Dr. Kristin R. Renkema, University of Arizona, 2009-2013 Thesis title: Maintenance, activation and protective responses of naïve CD8 T cells with aging (Postdoctoral Fellow, Dept. of Laboratory Medicine, University of Minnesota, Minneapolis, MN)
- Dr. Jason L. Pugh, University of Arizona, 2009-2013 Thesis title: Radiation and lymphocyte function in the context of cytomegalovirus (CMV) and aging (Postdoctoral Fellow, Department of Immunology, Stanford University, Palo Alto, CA).
- Dr. Emily Goldberg, University of Arizona, 2010- 2014 Thesis title: Energy metabolism and immunity to infection in the old age (Postdoctoral Fellow, Department of Comparative and Laboratory Medicine, Yale University College of Medicine, New Haven, CT).
- Dr. John S. Davies, University of Arizona, 2012-2016 Thesis title: Heterochronic parabiosis studies of the aging immune system (Postdoctoral Fellow, Tumor Vaccine Unit, National Cancer Institute, Bethesda, MD).
- Nico S. Contreras, University of Arizona, 2015-present Dietary modulation of immune function in aging

Undergraduate Mentoring

- Alona S. Sukhina, University of Arizona, 2011-2013; senior thesis "Investigating murine cytomegalovirus acute infection and reactivation via irradiation in primary mouse tissues"; (MD candidate, University of Arizona College of Medicine- Phoenix, class 2018)
- Lydia K. Lutes, University of Arizona, 2012-2014, senior Capstone thesis "Impaired nutrient sensing in old mouse CD8 T cells". (Ph.D. Candidate, University of California, Berkeley)
- Angela Wu, University of Arizona, 2012-2014, (MD Candidate, University of Arizona College of Medicine Tucson, class of 2019)
- Touloupe Obafemi, University of Arizona, 2014-2016, senior thesis "The effects of interleukin 6 and interleukin 10 on frailty in C57BL/6 mice" (MD candidate, University of Texas, Austin)
- Carly Cabel, University of Arizona Honors College, 2014-present

Justin Frere, University of Arizona Honors College, 2014 – present Sarah White, University of Arizona, 2016-present Amanda Warner, University of Arizona, 2016-present Max Zelikowsky, University of Arizona, 2016-present

Physician-Scientistl Faculty Mentoring

MSKCC - Paul Sabolcz, MD, 1997-1999 OHSU - Robert O'Rourke, MD, 2006-08, K08 U. of Arizona- Kurt J. Griffin, MD, 2008-10, K08

Karen Taraszka-Hastings, MD, Ph.D., 2008-present, K08

Zain Khalpey, MD, Ph.D. 2012-2013

Junior Faculty Mentoring (mentor or committee member):

OHSU: Mark Slifka, Ph.D., 2001-2004

U. of Arizona- Lonnie Lybarger, Ph.D., 2008-2014

Felicia Goodrum, Ph.D., 2008-present Karen Taraszka Hastings, 2008-present Souray Ghosh, Ph.D., 2011-2014

Sourav Ghosh, Ph.D., 2011-2014

Hsin-jung Joyce Wu, Ph.D., 2013-present Michael S. Kuhns, Ph.D., 2014-present Kristian Doyle, Ph.D., 2015- present

Office address: 1656 E. Mabel St., Tucson, AZ 85719 Phone: 520/626-6065

e-mail: nikolich@email.arizona.edu

Community activities and volunteer work:

Baseball – assistant coach, Cedar Mill Little League, 2002;

Volleyball – assistant coach, Tualatin Hills Park and Recreation District, 2002-2005 (co-ed 4th & 5th grade; girls 6-8 grade); assistant coach, SunCats Volleyball Club, Columbia Empire Volleyball Association (USAV member), 2002-2006; Head coach, Tualatin Hills Park and Recreation District, 2006 (girls 6-8th grade, competitive division).

Community outreach lectures – see above.

Publications (* - Peer Reviewed; ORCID # 0000-0001-5830-5323) :

- 1.* Nikolić, J. and S. Vukmanović. 1983. Production and characterization of alloreactive antisera in inbred rat strains. Med. Podml. XXXV (3-4), 197.
- 2.* Vukmanović, S. and J. Nikolić. 1983. Effects of Carrageenan in vivo: delineation of the effect on the immunocompetent and accessory cells. Med. Podml. XXXV (1), 21.
- 3. Nikolić, J. 1984. Analysis of the interaction of cloned T cells and macrophages by the F(ab)'2 fragments of antigen-specific antibodies. Med. Podml. XXXVI (1), 21.
- 4.* Mostarica-Stojković, M., J. Nikolić, M. Petrović and M.L. Lukić. 1983. Genetic correlates of the resistance to the induction of experimental allergic encephalomyelitis. Period. Biol. 85:63.
- 5.* Burkly, L.C., J. Nikolić and H.H. Wortis. 1985. T cell regulation of light chain expression: Early dominance of Igκ in a primary thymus-dependent response does not require affinity based selection. J. Immunol. 135:1573.
- 6. Nikolić-Žugić, J., T. Jovanovic, F.Y. Liew, W.L. Chan and M.L. Lukić. 1986. Immunogenic potential and protective capacity of HSV-I glycoproteins. In: <u>Genetic and Biochemical Engineering in Biotechnology</u>, P. Radicević, ed., pp. 117-125, Nolit, Belgrade, Yugoslavia.
- 7.* Nikolić-Žugić, J., T. Jovanović, W.L. Chan and M.L. Lukić. 1986. Induction of T cell proliferative response by immunopurified HSV-I glycoproteins: Correlation with their protective capacity. Period. Biol. 88 (1):158.
- 8. Jovanović, T., J. Nikolić-Žugić, J. Dimitrijević and M.L. Lukić. 1986. Detection of virus and type specific glycoproteins on the membrane of HSV-infected cells by monoclonal antibodies. Period. Biol. 88 (1):246
- 9. Nikolić-Žugić, J. and M.J. Bevan. 1988. Thymocytes expressing CD8 differentiate into CD4+cells following intrathymic injection. Proc. Natl. Acad. Sci. USA 85:8633.
- 10. Nikolić-Žugić, J., M.W. Moore and M.J. Bevan. 1989. Characterization of the subset of immature thymocytes which can undergo rapid in vitro differentiation. Eur. J. Immunol. 19:649.
- 11. Nikolić-Žugić, J. and M.W. Moore. 1989. T cell receptor expression on immature thymocytes with in vivo and in vitro precursor potential. Eur. J. Immunol. 19:1957.
- 12.* Nikolić-Žugić, J. and M.J. Bevan. 1990. Functional and phenotypic delineation of two subsets of CD4 single positive cells in the adult murine thymus. Int.Immunol.1:135.
- 13.* Nikolić-Žugić, J. and M.J. Bevan. 1990. The role of self peptides in positively selecting the T cell repertoire. Nature 344:65.
- 14. Nikolić-Žugić, J. and F.R. Carbone. 1990. The effect of mutations in the MHC class I peptide binding groove on the cytotoxic T lymphocyte recognition of the K^b-restricted ovalbumin determinant. Eur. J. Immunol. 20:2431.
- 15^{*}. Nikolić-Žugić, J., Jovanović, T., Pravica, V., Budimirović, D., & Lukić, M. L. (1990). Specific antigen induced down regulation of T cells response to Herpes simplex virus. Giornale di Malattie Infettive e Parassitarie, 42(7), 520-523.
- 16. Nikolić-Žugić, J. and F.R. Carbone. 1991. Peptide presentation by class-I major histocompatibility complex molecules. Immunol. Res. 10:54.
- 17. Nikolić-Žugić, J. 1991. Phenotypic and functional stages in thymocyte development. Immunol. Today 12:65.
- 18.* Sands, J.F. and J. Nikolić-Žugić, 1992. T cell-specific protein-DNA interactions occurring at the CD4 locus: identification of possible transcriptional control elements of the murine CD4 gene. Int. Immunol. 4:1183.
- 19.* Nikolić-Žugić, J., S. Andjelić, H-S. Teh, and N. Jain. 1993. Influence of T cell receptor (TcR)

- αβ transgenes on early T cell development. Eur. J. Immunol. 23:1699.
- 20. Nikolić-Žugić, J. and M.J. Bevan. 1993. Recognition requirements for the positive selection of the T cell repertoire: A role of self-peptides and major histocompatibility complex molecule pockets. In: Molecular Mechanisms of Immunological Self-Recognition (F.W. Alt and H.J. Vogel, editors), Academic Press, Inc., San Diego, CA pp. 105-114.
- 21.* Andjelić, S., N. Jain and J. Nikolić-Žugić. 1993. Ontogeny of fetal CD8^{lo}4^{lo} thymocytes: early expression of TcR α mRNA and TcR αβ receptors. Eur. J. Immunol. 23:2109.
- 22. Nikolić-Žugić, J. and R. Dyall. 1993. Positive selection of the T cell repertoire is affected by mutations in the peptide-binding site of MHC class I molecules. in A. Penn, D.P. Richman, R.L. Ruff and V.A. Lennon (eds) <u>Myasthenia gravis and related disorders: experimental and clinical aspects.</u> Ann. N.Y. Acad. Sci. 681:16.
- 23.* Andjelić, S., N. Jain and J. Nikolić-Žugić. 1993. Immature thymocytes become sensitive to calcium-mediated apoptosis with the onset of CD8, CD4 and the T cell receptor expression: A role for bcl-2? J. Exp. Med. 178:1745.
- 24. Andjelić, S., J. Drappa, E. Lacy, K.B. Elkon and J. Nikolić-Žugić. 1994. The onset of Fas expression follows the expression of CD8 and CD4 on murine fetal and adult thymocytes. Int. Immunol. 6:73.
- 25.* Vukmanovic, S., G. Stella, P.D. King, R. Dyall, K.A. Hogquist, J.T. Harty, J. Nikolić-Žugić and M.J. Bevan. 1994. Positively selecting thymic epithelial line lacks costimulatory activity. J. Immunol. 152:3814
- 26. Nikolić-Žugić, J. (editor) 1994. <u>Intrathymic Development of T Cells.</u> R.G. Landes Co., Austin, TX.
 - Contains the following authored chapters:
 - Chapter 3. Nikolić-Žugić, J. Phenotypic and functional stages in the intrathymic development of the $\alpha\beta$ thymocyte lineage.
 - Chapter 7. Nikolić-Žugić.J. Positive intrathymic selection of TcR alpha/betaT cells.
 - Chapter 8. Nikolic-Zugic, J. Clonal deletion in negative intrathymic selection.
 - Chapter 10. Nikolic-Zugic, J. The relationship between positive and negative selection.
 - Chapter 12. Nikolić-Žugić, J. and S. Andjelić. Signal transduction in developing thymocytes.
- 27.* Dyall, R. and J. Nikolić-Žugić. 1995. The majority of post-selection CD4⁺ single-positive thymocytes require the thymus to produce long-lived,functional T cells. J. Exp. Med. 181:235.
- 28. Chu, J.L., P. Ramos, A. Rosendorff, J. Nikolić-Žugić, E. Lacy and K.B. Elkon. 1995. Massive upregulation of the Fas ligand in *lpr* and *gld* mice: Implications for Fas regulation and the GVHD-like wasting syndrome. J.Exp. Med. 181:393.
- 29.* Dyall, R., L.V. Vasović, Á. Molano and J. Nikolić-Žugić. 1995. CD4-independent priming of murine CTLs by optimal MHC class I restricted peptides in vivo. Int. Immunol. 7:1205.
- 30. Onel, K.B., C.L. Tuček-Szabo, D. Ashany, E. Lacy, J. Nikolić-Žugić and K.B. Elkon. 1995. Expression and function of the murine CD95/FasR/APO-1 receptor in relation to B cell tolerance. Eur. J. Immunol. 25:2940.
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- 34. Vasović, L.V., R. Dyall and J. Nikolić-Žugić. 1997. Synergy between an antibody and CD8⁺ cells in eliminating an established tumor. Eur. J. Immunol. 27:372, 1997.
- 35.* Andjelić, S., A. Khanna, M. Suthanthiran and J. Nikolić-Žugić. 1997. Intracellular Ca⁺⁺ elevation and cyclosporin A (CsA) synergistically induce transforming growth factor β1 (TGFβ1)-mediated apoptosis in lymphocytes. J. Immunol. 158:2527.
- 36. Vanov, V.N. and J. Nikolić-Žugić. 1997. Transcription factor induction during signal-induced apoptosis of immature CD8⁺4⁺ thymocytes: a protective role of c-Fos. J. Biol. Chem. 272:8558.
- 37. Ross, H.M., L.W. Weber, S. Wang, G. Piskun, R. Dyall, Y. Takechi, J. Nikolić-Žugić, A.N. Houghton and J.J. Lewis. 1997. Priming for T cell-mediated rejection of established tumors by cutaneous DNA immunization. Clin. Cancer Res. 3:2169.
- 38.* Huard, R.C., R. Dyall and J. Nikolić-Žugić. 1997. The critical role of a solvent-exposed residue of an MHC class I-restricted peptide in MHC:peptide binding. Int. Immunol. 9:1701.
- 39. LeMaoult, J., S. Delassus, R. Dyall, J. Nikolić-Žugić, P. Kourilsky and M.E. Weksler. 1997. Clonal expansions of B lymphocytes in old mice. J.Immunol. 159:3866.
- 40. Molano, A., H. Erdjument-Bromage, D.H. Fremont, I. Messaoudi, P. Tempst and J. Nikolić-Žugić. 1998. Peptide selection by an MHC H-2K^b class I molecule devoid of a central anchor ("C") pocket. J. Immunol. 160:2815.
- 41. Ivanov, V.N. and J. Nikolić-Žugić. 1998. Biochemical and kinetic characterization of the glucocorticoid-induced apoptosis of immature CD8⁺4⁺ thymocytes. Int. Immunol. 10:1807.
- 42. Dyall, R., W.B. Bowne, L.W. Weber, J. LeMaoult, P. Szabo, Y. Moroi, G. Piskun, J.J. Lewis, A.N. Houghton and J. Nikolić-Žugić. 1998. Heteroclitic vaccination induces tumor immunity. J. Exp. Med. 188:1553.
- 43.* Dyall, R., L.V. Vasović, R. A. Clynes, and J. Nikolić-Žugić. 1999. Cellular requirements for the monoclonal antibody-mediated eradication of an established solid tumor. Eur. J. Immunol. 29:30.
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- 49.* Guevara Patino, J.A., V.N. Ivanov, K.B. Elkon, E. Lacy, M.W. Marino and J. Nikolić-Žugić. 2000. TNF-α is the critical mediator of cAMP-mediated apoptosis of CD8⁺4⁺ double-positive (DP) thymocytes . J. Immunol. 164:1689
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- 51. Guevara Patino, J.A., M. W. Marino, V.N. Ivanov, and J. Nikolich-Žugich. 2000. Sex steroids induce apoptosis of $CD8^+4^+$ double-positive thymocytes via $TNF\alpha$. Eur. J. Immunol. 30:2586.
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- homeostasis: kinetics of a diversity loss. J. Immunol. 165:2367.
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- 58.* Messaoudi, I., J.A. Guevara Patino, R. Dyall, J. LeMaoult, and J. Nikolich-Žugich. 2002. Direct link between *mhc* polymorphism, T-cell avidity and diversity in immune defense. Science 298:1797.
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- 140. Nikolić-Žugić, J. Karakteristike Starenja Imunskog Sistema (Key characteristics of the immune system aging in Serbian), pp. XX-00; in: Starenje Krvnih Organa (Aging of the Hematopoietic System and Organs), D. Marisavljević, Ed.. Naucna Knjiga, Beograd, 2017 (in press).
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Paper #13 was followed by a News & Views commentary in the same issue of Nature. Paper #58 was highlighted by a commentary in Nature Reviews Immunology. Papers #58, 72, 84 and 93 were noted as papers of interest by Faculty of 1000, and were ranked between "must read" and "outstanding". Paper #121 was highlighted in Nature Reviews Immunology 14:3, 2014 (Research Highlights, in Brief, by E. Kugelberg). Papers #123 & 131 (Comai L: F1000Prime Recommendation of [Goldberg EL et al., Aging Cell 2015, 14(1):130-8]. In F1000Prime, 19 Feb 2015; DOI: 10.3410/f.725248287.793503904. F1000Prime.com/725248287#eval79350390) were selected by the Faculty of 1000 for F1000 Prime. Paper #139 was highlighted on the cover of Nature Immunology.

Manuscripts submitted or in preparation:

Jergovic, M., Renkema, K.R., Goldberg, E.L. et al. The role of incomplete T-bet induction in agerelated defect of CD8 T cell differentiation. (in preparation; submission by August 2016)

Uhrlaub, J.L. et al., Age-related T cell defects in response to poxvirus infections. (in preparation for September 2016)

Bennett, M.S. et al. Diversity of T cell pools with aging in the presence or the absence of the cytomegalovirus (CMV) (in preparation)

Ongoing Research Support

1R01 AG048021 Nikolich-Zugich (PI) 4/15/2014-03/31/2019 1.2 mo

Impact of CMV upon T-cell aging and immune defense

Goal: To dissect how CMV modulates T-cell receptor repertoire and function.

1R21 AG054317 (Nikolich-Zugich, PI) 09/30/2016-04/30/2018

Disparities in Immune Fitness in HIV+ Subjects with Aging

Goal: To investigate the roles of ethnic background and cytomegalovirus in immune aging in persons with HIV.

1R56 AG053358 (Nikolich-Zugich, PI) 09/15/2016-08/31/2017 1.2 mo

Mechanisms of Age-related Susceptibility to the chikungunya virus (CHIKV)

Goal: To dissect the impact of an arthritogenic alphavirus on the immune system of older individuals.

1R21 AG045734 (Nikolich-Zugich, PI) –no cost extension 04/01/2014-03/31/2017 1.2 mo Longevity extension and immune function in aging

Goal : To examine whether the most potent longevity extension interventions may adversely affect innate and adaptive immunity.

Completed Research Support in the last 5 years:

BAA NIHAI20100085 (Nikolich-Zugich, PI) 05/16/2011-05/15/2016 3.0 mo

ADB Contract HHSN 272201100017C

NIH/NIAID N01-AI-00017

Immune protection in Special Populations:

Role:PI Total award: \$13.8 M

BAA-NIAID-DAIT-NIHAI2008023 9/30/2009-9/29/2015 1.2mo

Studies of Immunosenescence and Other Late Effects of Acute Ionizing Radiation

Exposure in Atomic Bomb Survivors

HHSN272200900059C

Radiation Effects Research Foundation (Nakachi, K, PI)); Nikolich-Zugich (Subcontract PI) –

Project: Effects of Radiation and Aging on T Cell homeostasis and function

Total award to UA: \$873K

Goal: To elucidate whether and how radiation may precipitate or accelerate manifestations of aging in the immune system.

5 U51 Al081680 Nelson (PI) 03/01/09-02/28/15 1.2 mo NIH/NIAID

Research Centers of Excellence in Biodefense and Emerging Diseases

Nikolich-Zugich, Project 2 PI – Broad-based strategies to improve T-cell mediated protection

Role: Subcontract Pl Total award: \$2.6M (no cost extension)

4 U01 Al82529 Nikolich-Zugich & Picker, co-Pl 04/15/09-04/14/2014 1.2 mo

NIAID/NIA

Rejuvenation of T-cell pool in advanced age

Role: PI Total award: \$850K

1.2 mo

9R01 AG020719-09 Nikolich-Zugich (PI) 08/01/01 - 07/31/13 1.2 mo

NIH/NIA

T Cell Homeostasis and Function in Immune Senescence

Goal: to understand T cell dysregulation in immune senescence.

SENS Foundation - Nikolich-Zugich (PI) 12/10/08-Rejuvenation of the aging T-cell pool by rebalancing T-cell repertoire 12/10/08-11/09/2013 0.6 mo

Total award: \$390K Role: PI

Updated 10/2016