## **CURRICULUM VITAE**

## NANCY LEE MONSON, PhD

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## EDUCATION:

B.S. 1991 Honors Biology/Chemistry, Valparaiso University, Indiana

Ph.D. 1996 Oncology, with a minor in Immunology, University of Wisconsin at Madison

## PROFESSIONAL APPOINTMENTS:

Sept. 2019 - Present	ASSOCIATE PROFESSOR OF NEUROLOGY AND NEUROTHERAPEUTICS ASSOCIATE PROFESSOR OF IMMUNOLOGY (with tenure)
Mar. 2020 – Mar. 2021	LABORATORY DIRECTOR, UT Southwestern COVID Biorepository
Jan. 2020 - Present	LABORATORY DIRECTOR, O'Donnell Brain Institute Biorepository Core
Sept. 2012 - 2019	ASSOCIATE PROFESSOR OF NEUROLOGY AND NEUROTHERAPEUTICS ASSOCIATE PROFESSOR OF IMMUNOLOGY (tenure accruing)
Sep. 2011 - 2019	LABORATORY DIRECTOR, Neuroscience Biorepository
Sept. 2009 – Aug. 2012	ASSOCIATE PROFESSOR OF NEUROLOGY AND NEUROTHERAPEUTICS ASSOCIATE PROFESSOR OF IMMUNOLOGY (non-tenure accruing)
Jan. 2000 – Aug. 2009	ASSISTANT PROFESSOR OF NEUROLOGY (non-tenure accruing)
June 1996 - Dec. 1999	<u>RHEUMATOLOGY POST DOCTORAL FELLOW</u> : Within the laboratory of Dr. Peter Lipsky, UT-Southwestern Medical Center, Department of Internal Medicine, Division of Rheumatology. Post-doctoral research project involves determining the lambda light chain immunoglobulin repertoire in different stages of B cell development. Dallas, Texas.
March 1995 - May 1996	<u>ONCOLOGY RESEARCH FELLOW</u> : Within the laboratory of Dr. Paul Sondel, UW-Madison, Department of Human Oncology. Completion of dissertation research involved dissecting the expression and function of the Interleukin-2 Receptor Gamma Chain in receptor complexes of members of the cytokine receptor superfamily, including IL-15. Madison, Wisconsin.
Sept. 1993 - Feb. 1995	<u>RESEARCH ASSISTANT/PHD CANDIDATE</u> : Within the laboratory of Dr. Paul Sondel, UW-Madison, Department of Human Oncology. Dissertation research involved dissecting the expression and function of the Interleukin-2 Receptor Gamma Chain in receptor complexes of members of the cytokine receptor superfamily. Madison, Wisconsin.

- Sept. 1991 Sept. 1993 <u>HUMAN ONCOLOGY TRAINING GRANT APPOINTEE</u>: Within the laboratory of Dr. Paul Sondel, UW-Madison, Graduate Student in the Human Cancer Biology PhD Program of the Department of Human Oncology involved in retrovirus construction and IL-2 receptor expression/signalling. Madison, Wisconsin.
- June 1991 Aug. 1991 <u>RESEARCH ASSISTANT</u>: Within the laboratory of Dr. C. Chang, University of Wisconsin Cancer Center, pre-doctoral student conducting research in the field of molecular prostate cancer. Madison, Wisconsin.
- Sept. 1990 May 1991 <u>SENIOR HONORS STUDENT</u>: Within the laboratory of Dr. D. Scupham, Valparaiso University, determining the effect of 25-hydroxycholesterol on rat splenocyte proliferation. Valparaiso, Indiana.
- June 1990 Aug. 1990 <u>RESEARCH ASSISTANT</u>: Within the laboratory of Dr. V. Haughton, Medical College of Wisconsin, describing histological characteristics of human facet joints in comparison to Magnetic Resonance Imaging (MRI) of the corresponding sections. Milwaukee, Wisconsin.
- March 1988 May 1991 <u>LABORATORY ASSISTANT</u>: Within the laboratory of Dr. J. Tan, Valparaiso University, principle technician responsible for laboratory maintenance, teaching assistance to students interested in learning mammalian cell culture, inventory and acquisition, upkeep of tissue culture lines and daily experimentation under the guidance of Dr. J. Tan. Valparaiso, Indiana.
- Sept. 1984 May 1987 <u>SCIENCE FAIR STUDENT</u>: Within the laboratories of Jamestown High School, North Dakota, and Dr. D. Rock at North Dakota State University, determining the ability of Bovine Herpes Virus to acquire latency in the presence of acyclovir in vitro, and the genes involved in this process. Jamestown and Fargo, North Dakota.

## PATENTS FILED:

#### **VH4 CODON SIGNATURE FOR MULTIPLE SCLEROSIS**

Filed July 29, 2009 as 12/509,093 LICENSE GRANTED 3-12-13 AS 8,394,583 B2 UTSWMC #2107

#### CODON SIGNATURE FOR NEUROMYELITIS OPTICA

Filed October 21, 2011; U.S. Serial No. 61/550,158 UTSWMC #2496

#### VH4 ANTIBODIES AGAINST GRAY MATTER NEURON AND ASTROCYTE

Filed November 8, 2013 as Application No. PCT/US2014/064533; U.S. Serial No. 61/902,004 UTSWMC #2730

#### MUTATIONS THAT DRIVE VH4 ANTIBODY AUTOREACTIVITY

Filed February 1, 2016 as Provisional Application No. 62/289,736 UTSWMC #3011

# HONORS | HIGH SCHOOL:

March 1986	Awarded the North Dakota Medical Association Award for the best project in the category of Medicine and Health at the North Dakota State Science Fair.
May 1986	Fourth Place Grand Award at the International Science and Engineering Fair in the category of Medicine and Health, Fort Worth, Texas.
November 1986	Second Place overall at the Regional Minnesota Academy of Science, Duluth, Minnesota.
March 1987	Most Outstanding Project Award at the Regional Science Fair, Jamestown, North Dakota.
March 1987	First Place Winner in the category of Medicine and Health at the North Dakota State Science Fair, Minot, North Dakota.
March 1987	Attended the Junior National Academy of Science as a runner-up for North Dakota, West Point Academy, New York.
May 1987	Fourth Place Grand Award at the International Science and Engineering Fair in the category of Medicine and Health, San Juan, Puerto Rico.
May 1987	Graduated Valedictorian, Jamestown High School, Jamestown, North Dakota.

## HONORS | UNDERGRADUATE:

- March 1991 Chosen to present senior research project at Indiana Academy of Science, Valparaiso University, Valparaiso, Indiana.
- March 1991 Awarded Honorable Mention for submitting a meritous application for a National Science Foundation Research Scholarship, Valparaiso University, Valparaiso, Indiana.
- May 1991 Awarded Associate Degree in Christ College Honors Program which emphasizes liberal and interdisciplinary studies, Valparaiso University, Valparaiso, Indiana.
- May 1991Awarded Honors Degree in Biology for Outstanding Work on Senior Honors<br/>Laboratory Research Project, Valparaiso University, Valparaiso, Indiana.

## HONORS | PRE-DOCTORAL STUDIES:

- February 1991 Awarded Predoctoral Traineeship to pursue graduate studies in the Human Cancer Biology Program, Department of Human Oncology, Madison, Wisconsin (Accepted April, 1991).
- March 1991 Awarded Predoctoral Traineeship to pursue graduate studies at the McArdle Laboratories for Cancer Research, Department of Oncology, Madison, Wisconsin (did not accept).
- January 1994 Elected as first Graduate Student Representative to the Human Oncology Graduate Steering Committee with full voting privileges, Madison, Wisconsin.
- February 1995 Accepted as a member of Sigma Xi, the Scientific Research Society, Madison, Wisconsin.
- March 1995 Awarded UW Cancer Center Fellowship for Pre-doctoral studies, Madison, Wisconsin.
- March 1995 Member, Sigma Xi Research Society.

# HONORS | POST-DOCTORAL STUDIES:

June 1996-1999 NIH post-doctoral fellowship award recipient

# HONORS | FACULTY:

2003 - Present	Invited Grand Awards Judge of Biological Sciences at the Texas State Science Fair
2005-2008	Wadsworth Foundation Young Investigator
2011	Mid-career Travel Award, American Association of Immunologists
November 2015	Hall of Fame, National MS Society
April 2018	Yellow Rose Courage Award, Yellow Rose Foundation and National MS Society

## PROFESSIONAL SOCIETY MEMBERSHIP AND SERVICE:

2000 to present	Member, American Association of Immunologists
2008-2011	Program Committee, American Association of Immunologists
2008	Co-Chair, 9 <sup>th</sup> International Congress of Neuroimmunology
2018 to present	Member, Society for Neuroscience

## **GRANT REVIEW COMMITTEES:**

2002-2008	National Multiple Sclerois Society Fellowship Review Committee
2005	Lupus Research Institute Grant Reviews
2007	NINDS Reviewer Clinical Neuroimmunology and Brain Tumor
2010	Department of Defense Grant Review Committee for Multiple Sclerosis Research Program
2014 to 2019	National Multiple Sclerosis Society Grant Review Committee B
2015	International Multiple Sclerosis Scientific Research Foundation Grant Review Committee
2017 - 2020	Department of Defense Grant Review Committee for Multiple Sclerosis Research Program
2018	NIAID Grant Review Committee for SBIR Program Proposals
2018	NIAID Grant Review Committee for ACE Program Proposals
2019	NINDS Grant Review Committee for R01 Proposals (CNBT)
2020	Standing member of NINDS Grant Review Committee for R01 Proposals (CNBT)
2021	Chair, Department of Defense Grant Review Committee for Multiple Sclerosis Research Program

# **INDUSTRY RELATED COMMITTEES:**

2005-2009	Genentech, Inc.; Advisor; MS Immunology International Board
2011 to present	MedImmune, Inc.; Advisor; Medi-551 Initiative
2015 to present	Genentech, Inc.; Advisor; Committee on B cell depletion therapy
2020 to present	Genentech, Inc.; Advisor; CHIMES trial on Minorities with MS

# EDITOR/ASSOCIATE EDITOR:

2007	Frontiers in Bioscience
2015	Multiple Sclerosis International

# AD HOC REVIEWER:

2012 to present	Brain
2012 to present	Journal of Autoimmunity
2012 to present	Molecular Immunology
2012 to present	Vaccine
2014 to present	Cellular Immunology
2014 to present	European Journal of Clinical Investigation
2014 to present	European Journal of Neurology
2014 to present	Frontiers of Neurology
2014 to present	JAMA Neurology
2014 to present	Journal of Immunology
2014 to present	Journal of Neuroimmunology
2014 to present	Nature
2015 to present	Annals of Clinical and Translational Neurology
2015 to present	BMC Genetics
2015 to present	Clinical and Experimental Immunology
2015 to present	Frontiers of Immunology
2015 to present	PlosONE
2016 to present	ACTA Neuropathologica
2016 to present	BMC Infectious Disease
2016 to present	BMC Neurology
2016 to present	Journal of Neuroinflammation
2016 to present	Journal of Pediatric Biochemistry
2016 to present	Neuroscience Letters

## **MENTORSHIP TO JUNIOR FACULTY:**

Ann Stowe, Ph.D., Assistant Professor in Department of Neurology and Neurotherapeutics, 2012 to 2018 Ryan Huebinger, Ph.D., Instructor in Department of Surgery, 2013 to 2020 Christian LoBue, M.D., Mentor on K22 Kiel Telesford, Ph.D.; K32 application out of Vartanian Laboratory at Cornell Weill Medical, 2020

## CURRENT TRAINEES:

#### **<u>PAST TRAINEES</u>**: Trainee average publications while in Monson lab: 6.4 (2.4 as 1<sup>st</sup> author; 4.0 as co-author)

Maria del Pili Martin, post-doctoral fellow and Immunology TR Fellow,
Immunology Graduate Program, 2005 to 2007; 2 publications
Currently: Assistant Professor at Emory, Atlanta Georgia
Elizabeth M. Cameron, graduate student,
Immunology Graduate Program, 2001 to 2008; 5 publications
Currently: Senior Medical Writer, Cadent Medical, Dallas, Texas
Christopher T. Harp, graduate student and Immunology TR Fellow,
Immunology Graduate Program, 2004 to 2009; 7 publications
Currently: Scientist at Genentech, San Francisco CA
Ann Ligocki, graduate student and Immunology TR Fellow;
Immunology Graduate Program, 2008 to 2014; 7 publications
Currently: Staff Scientist at Regeneron Pharmaceuticals
Sara Ireland, graduate student and Immunology TR Fellow;
Immunology Graduate Program, 2009 to 2015; 9 publications
Currently: unknown
William Rounds, graduate student and Immunology TR Fellow
Immunology Graduate Program, 2009 to 2016; 7 publications
Currently: Research Program Management Associate, Regeneron Pharmaceuticals
Ding Chen, post-doctoral fellow and assistant instructor
Immunology Graduate Program, 2012 to 2016; 9 publications
Currently: Nursing Program student
Jackie Rivas, graduate student
Immunology Graduate Program, 2012 to 2017; 2 publications
Currently: Post-doctoral Fellow at the University of Kentucky
Chaitanya Joshi, Ph.D., Post-doctoral fellow; 2 publications
November 2018 to May 2021
Currently: Consultant in industry

## **GREEN FELLOW TRAINEES**:

Joseph Lim; 2015 Isis Lopez; 2012

## SURF UNDERGRADUATE TRAINEES:

Dylan Shah, 2016 Katie Graham, 2014 Bonnie Cassidy; 2008 Tanya Hendricks; 2007 Jonathan Lazarini; 2007 Timothy Ahearne; 2006

## STAR or High School TRAINEES:

Joseph Newcomer; 2020 Payton Steger, 2020 Angela Wu; 2018 Ritu Trivedi; 2017,2018 Jordan Johnson; 2013, 2014, 2015 Bryan Bolster (HS teacher); 2011, 2012 Monica Blazek; 2011, 2012, 2013, 2014 Elayna Tillman; 2009

## **DISSERTATION COMMITTEE CHAIR FOR:**

Conner Hutcherson, graduate student, Biomedical Engineering Graduate Program, 2020 to present Kiel Telesford, masters student, Cornell, Immunology Graduate Program, Defense Chair, 2020 Vanessa Torres, graduate stuent, Immunology Graduate Program, 2017 to 2021

### **DISSERTATION COMMITTEE MEMBER FOR:**

Julia Hankins, graduate student, Immunology Graduate Program 2014 to 2019 Jessica Mayeux, graduate student, Immunology Graduate Program 2014-2015 Jacob Orme, MD PhD student, Immunology Program, 2012-2014 Daniel Plymore, graduate student, Molecular Biophysics Program, 2012 to 2018 Toni Guiterrez, graduate student, Immunology Graduate Program, 2004 to 2009 Dru Dace, graduate student, Immunology Graduate Program, 2002 to 2007

### **IMMUNOLOGY GRADUATE PROGRAM COMMITTEES:**

Member since 2001 Steering Committee; 2003 to present Curriculum Committee; 2005 to present Qualifying Exam Chair for Elise Burger, 2014 Qualifying Exam Member for Kuan-Wen Wang, 2014 Qualifying Exam Member for Minghao Li, 2017 Qualifying Exam Member for Eugene Koo, 2020

## IMMUNOLOGY COURSE CO-ORGANIZER:

Fundamentals of Immunology; 2005 and 2006 Cellular and Molecular Immunology; 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 Clinical Immunology; 2010, 2011, 2012, 2013, 2014, 2015, 2016

#### **IMMUNOLOGY COURSE ORGANIZER:**

Summer Immunology Course (non-credit); 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012

#### INTEGRATIVE MOLECULAR AND BIOMEDICAL SCIENCES GRADUATE PROGRAM COMMITTEES:

Member since 2013 Qualifying Exam Member for Kuan-Wen Wang, 2014 Qualifying Exam Member for Tianshi Lu, 2019

#### **INTEGRATIVE MOLECULAR AND BIOMEDICAL SCIENCES COURSE CO-ORGANIZER:**

Human Biology of Disease II; Co-director Joachim Herz; 2018-2019

#### **BIOMEDICAL ENGINEERING GRADUATE PROGRAM COMMITTEES:**

Qualifying Exam Chair for Conner Hutcherson, 2020

## **UT SOUTHWESTERN MEDICAL CENTER ACTIVITIES:**

Member, Conflict of Interest Committee; 2017, 2018, 2019, 2020, 2021 Member, Conflict of Interest Compliance Sub-Committee; 2018, 2019, 2020

## DIVISON OF BASIC SCIENCE ACTIVITIES:

Admissions Board Committee Member; 2003 - 2009 Discussion Leader, Research Ethics; 2005, 2006, 2007, 2008, 2010 Postdoctoral Poster competition judge; 2009, 2010, 2019 CONVERGENCE Project; 2011, 2012, 2013, 2014 Featured lecture on human subjects research; 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021

## MEDICAL SCHOOL ACTIVITIES:

Immunology Conference Leader in Medical Microbiology; 2006, 2007, 2008, 2009 and 2010 Admissions Board reviewer; 2009 Medical Immunology Conference Director, 2011, 2012, 2013, 2014 Organizer and Lecturer in "CNS Autoimmunity", Frontiers in Immunology, 2021 (Partner: Ben Greenberg)

## **NEUROLOGY DEPARTMENT ACTIVITIES:**

Organizer, Research Seminar; 2015, 2016, 2017, 2018, 2019, 2020 Organizer and discussion leader Neuroimmunology Fellowship Journal Club; 2016, 2017, 2018 Member, Promotions and Tenure Review Committee, 2020, 2021 Member, Faculty Retreat Planning Committee, 2021 Member, Research Academy, 2021

## LECTURES GIVEN IN IMMUNOLOGY GRADUATE PROGRAM:

Lecture Title:	Course:	Date:
B cell Development and VDJ Recombination	Fundamentals of Immunology	4-16-04
B cells in Multiple Sclerosis	Clinical Immunology	10-11-04
B cell Development and VDJ Recombination	Fundamentals of Immunology	4-15-05
B cell Development: A Closer Look	Cellular and Molecular Immunology	11-26-05
VDJ Recombination: An Introduction	Fundamentals of Immunology	3-28-06
B cell Development and Activation	Fundamentals of Immunology	4-13-06
B cell Development: A Closer Look	Cellular and Molecular Immunology	10-11-06
An Introduction to Neuroimmunology	Cellular and Molecular Immunology	11-15-06
B cell Development: A Closer Look	Cellular and Molecular Immunology	10-15-07
B cell Development: A Closer Look	Cellular and Molecular Immunology	10-15-08
B cell Development Paper Discussion	Cellular and Molecular Immunology	10-17-08
B cell Development: A Closer Look	Cellular and Molecular Immunology	10-14-09
B cell Development Paper Discussion	Cellular and Molecular Immunology	10-19-09
B cell subsets	Cellular and Molecular Immunology	4-12-10
B cell effector functions	Cellular and Molecular Immunology	4-14-10
Hot Topics	Cellular and Molecular Immunology	5-3-10
Introduction to Clinical Immunology	Clinical Immunology	8-25-10
Neuroimmunology	Clinical Immunology	8-30-10
Antigen Receptor diversification	Cellular and Molecular Immunology	4-15-11
B cells: Ab effector functions	Cellular and Molecular Immunology	4-21-11
B cells: non-Ab mediated effector functions	Cellular and Molecular Immunology	4-25-11
Hot Topic	Cellular and Molecular Immunology	5-6-11
Introduction to Clinical Immunology	Clinical Immunology	8-23-11
Neuroimmunology	Clinical Immunology	8-25-11
How to read a paper and "hot topic"	Cellular and Molecular Immunology	3-19-12
Antigen Receptor diversification	Cellular and Molecular Immunology	4-9-12
B cells: Ab effector functions	Cellular and Molecular Immunology	4-16-12
B cells: non-Ab mediated effector functions	Cellular and Molecular Immunology	4-18-12

NeuroimmunologyClinical Immunology4-24-18NeuroimmunologyClinical Immunology4-26-18NeuroimmunologyClinical Immunology3-19-2019NeuroimmunologyClinical Immunology3-21-2019NeuroimmunologyClinical Immunology4-7-2020	Manipulation of the Immune Response Neuroimmunology Bacterial Infections 1 Bacterial Infections 2 Antigen Receptor diversification B cells: Ab effector functions B cells: non-Ab mediated effector functions Antigen receptor diversification B cell effector functions Studies in Human Immunology Neuroimmunology Antigen receptor diversification B cell effector functions Studies in Human Immunology Autoimmunity and tolerance Vaccination and Immunosuppression Introduction to Clinical Immunology Autoimmunity and Tolerance Vaccination and Immunosuppression Student Choice Clinical Topic	Clinical Immunology Clinical Immunology Clinical Immunology Cellular and Molecular Immunology Clinical Immunology Cellular and Molecular Immunology Cellular and Molecular Immunology Cellular and Molecular Immunology Cellular and Molecular Immunology Clinical Immunology	3-21-13 3-26-13 4-23-13 5-2-13 1-28-13 2-6-13 2-8-13 1-30-14 2-20-14 3-13-14 4-1-14 1-29-15 2-19-15 4-2-15 4-2-15 4-9-15 3-24-16 3-29-16 4-28-16 5-3-16
NeuroimmunologyClinical Immunology4-26-18NeuroimmunologyClinical Immunology3-19-2019NeuroimmunologyClinical Immunology3-21-2019NeuroimmunologyClinical Immunology4-7-2020	Autoimmunity and Tolerance Vaccination and Immunosuppression	Clinical Immunology Clinical Immunology Clinical Immunology Clinical Immunology	4-26-16 4-28-16 5-3-16 5-5-16
Neuroimmunology Clinical Immunology 4-20-202	Neuroimmunology Neuroimmunology Neuroimmunology Neuroimmunology Neuroimmunology Neuroimmunology	Clinical Immunology Clinical Immunology Clinical Immunology Clinical Immunology Clinical Immunology Clinical Immunology	4-26-18 3-19-2019 3-21-2019

## LECTURES GIVEN

## IN INTEGRATIVE MOLECULAR AND BIOMEDICAL SCIENCES GRADUATE PROGRAM:

Lecture Title:	Course:	Date:
Clinical Research	Human Biology of Disease II	1-8-2019
The Inflammatory Aspect of CNS Disease	Human Biology of Disease II	2-7-2019
NIH 101	Human Biology of Disease II	2-26-2019

#### LECTURES GIVEN IN NEUROLOGY RESIDENCY PROGRAM:

Lecture Title:	Date:
Potential Impact of Immune Cell Components on CNS Disease	12-10-2007
Potential Impact of Immune Cell Components on CNS Disease	5-4-2009
Immune Pathophysiology of CNS Disease	3-28-2011
Immune Pathophysiology of CNS Disease	9-30-2013
Mechanisms of Pediatric Autoimmune Encephalitis	4-13-2017
B cells in demyelinating disease of the brain (Resident Boot Camp)	6-13-2017
Neuroimmunology of MS (Resident Boot Camp)	5-24-18
Introduction to Immunology/CNS Autoimmunity (Resident Boot Camp)	10-24-2019
Introduction to Immunology/CNS Autoimmunity (Resident Boot Camp)	9-3-2020

#### LECTURES GIVEN IN PHYSICIAN AND NURSE TRAINING PROGRAMS:

Lecture Title: Neuroimmunology of MS Neuroimmunology of MS **Date:** 3-17-2010 4-21-2010

Neuroimmunology of MS5-26-2010Neuroimmunology of MS8-17-2011Neuroimmunology of MS8-31-2011Neuroimmunology of MS9-21-2011Neuroimmunology of MS10-12-2011Neuroimmunology of MS7-23-2012
Neuroimmunology of MS8-31-2011Neuroimmunology of MS9-21-2011Neuroimmunology of MS10-12-2011
Neuroimmunology of MS9-21-2011Neuroimmunology of MS10-12-2011
Neuroimmunology of MS 10-12-2011
Neuroimmunology of MS 7-23-2012
Neuroimmunology of MS 8-13-2012
Neuroimmunology of MS 8-27-2012
Neuroimmunology of MS 9-10-2012
Neuroimmunology of MS 10-1-2012
Neuroimmunology of MS 10-29-2012
Neuroimmunology of MS 11-5-2012
Neuroimmunology of MS 11-12-2012
Neuroimmunology of MS 12-3-2012
Neuroimmunology of MS 1-28-2013

# CONFERENCES TAUGHT IN MEDICAL IMMUNOLOGY TO MEDICAL STUDENTS:

Lecture Title:		Date:
Conference 1:	Typhoid Fever	5-10-11
Conference 2:	Tuberculosis	5-12-11
Conference 3:	Tetanus/Vaccine	5-17-11
Conference 4:	Multiple Myeloma, XSCID	5-19-11
Conference 5:	Allergy	5-24-11
Conference 1:	Typhoid Fever	5-11-12
Conference 2:	Tuberculosis	5-15-12
Conference 3:	Tetanus/Vaccine	5-21-12
Conference 4:	Multiple Myeloma, XSCID	5-22-12
Conference 5:	Allergy	5-23-12
Conference 1:	Typhoid Fever	5-14-13
Conference 2:	Tuberculosis	5-16-13
Conference 1:	Enteric Infection	5-9-14
Conference 3:	Hypersensitivities	5-20-14

## **INTERDISCIPLINARY CONVERGENCE PROJECT:**

Lecture Title:	Date:
Interprofessional Teams	1-18-12
Boundaries	2-15-12
Convergence	3-21-12
Authorship	4-18-12
Images	5-16-12
Introduction to Convergence	8-22-12
Mentoring	9-19-12
Science Teams	10-17-12
Animals	11-14-12
Interprofessional Teams	1-16-13
Boundaries	2-20-13
Convergence Human Genetics Testing	3-6-13
Convergence Case Study	3-20-13
Not recorded	8-21-13
Not recorded	9-18-13
Not recorded	10-16-13
Not recorded	11-20-13
Not recorded	12-18-13

Technology	1-15-14
Convergence Interprofessional Teams	2-19-14
Lecture: Human Subjects Research	2-26-14
Convergence Case Study	3-5-14
Convergence Day	3-19-14
Authorship/Peer Review	4-14-14

# CURRENT FEDERAL RESEARCH SUPPORT:

#### Immunology of Advancing Disease among Minorities with Multiple Sclerosis

Corresponding Investigator: Nancy L. Monson, Ph.D.

Multiple Investigator Partners: Timothy Vartanian, M.D. and Lilyana Amezcua, M.D. Agency: National Institutes of Health | Type: 1 R01 NS123398 | Period: 07/01/2021- 06/31/2026 The goal of this project is to determine the role of plasmablasts in minorities with multiple sclerosis in a consortium of 3 institutions: UT Southwestern, Weil Cornell and University of Southern California.

#### **Contribution of plasmablasts in the conversion of transverse myelitis to multiple sclerosis** Principal Investigator: Nancy L. Monson, Ph.D.

Agency: National Institutes of Health | Type: 1 R01 NS102417-01 | Period: 04/01/2018- 03/31/2023 The goal of this project is to determine the role of plasmablasts in the progression of Transverse myelitis to multiple sclerosis.

#### **Regulation and Consequences of Ets 1 Downregulation in B cells**

Principal Investigator: Anne Sattherthwaite, Ph.D. | Co-Investigator: Nancy L. Monson, Ph.D. Agency: National Institutes of Health | Type: RO1 | Period 4/1/2016 – 3/31/2021 The goal of this project is to determine the impact of Ets1 dysregulation on B cells.

## **CURRENT FOUNDATION OR INSTITUTIONAL RESEARCH SUPPORT:**

**Impact of anti-neuronal antibodies on Experimental Autoimmune Encephalitis** Principle Investigator: Nancy L. Monson, Ph.D. Agency: Undisclosed donor | Period 01/01/2020 – no end date The goal of this project is to determine the impact of anti-neuronal antibodies on EAE

## Impact of anti-neuronal antibodies from Transverse Myelitis patients on Neuron Health

Principle Investigator: Nancy L. Monson, Ph.D.

Agency: Transverse Myelitis Foundation | Period 10/1/2017 – no end date The goal of this project is to determine the impact of anti-neuronal antibodies on neuron health

## COMPLETED FEDERAL RESEARCH SUPPORT:

#### Next Generation Biomarkers of Gulf War Illness

Principal Investigator: Nancy L. Monson, Ph.D. Agency: Department of Defense | Type: New Investigator | Period 9/1/2017 – 8/31/2021 The goal of this project is to identify novel biomarkers for gulf war illness.

## Immune Profile Investigations of Alzheimer's Disease

Principal Investigator: Nancy L. Monson, Ph.D.

Agency: National Institutes of Health | Type: 1R21NS104509-01 | Period: 7/1/2018 – 6/30/2021 The goal of this project is to investigate immune profile changes in patients with Alzheimer's Disease.

#### **Immune Profiling of Encephalitis**

Principal Investigator: Nancy L. Monson, Ph.D.

Agency: National Institutes of Health | Type: 1R21NS09822901 | Period: 7/1/2016 – 6/30/2019 The goal of this project is to investigate the role of B cells and antibody genetics in Autoimmune Encephalitis.

#### B cells alter adaptive autoimmunity to protect from ischemic injury after stroke

Principal Investigator: Ann Stowe | Co-Investigator: Nancy L. Monson, Ph.D.

Agency: National Institutes of Health | Type: 5R01NS088555-01 | Period: 02/01/15-01/31/20 Th goal is to determine how B cells contribute to neuronal protection.

#### Somatic Mutations in the Etiology of Multiple Sclerosis

Principal Investigator Richard Scheuermann, Ph.D. | Co-Investigator: Nancy L. Monson, Ph.D. Agency: National Institutes of Health | Type: R21 | Period 7/1/2016 – 6/30/2019 The goal of this project is to understand the relationship between somatic mutation and MS

## RepServer: Antigen receptor repertoire analysis pipelines via the WWW

Principal Investigator: Lindsay G. Cowell, Ph.D | Co-Investigator: Nancy L. Monson, Ph.D. Agency: National Institutes of Health | Type: R01 | Period: 10/1/2011 – 9/30/2018 The goals of this project are to develop a seamless analysis platform for antibody gene population distributions from patient samples generated by next generation sequencing.

Principle Investigator, "Molecular Analysis of the Ig Repertoire in MS", National Institutes of Health, Grant No. RO1 NS 40993-01A2, 2002-2005.

## COMPLETED FOUNDATION OR INSTITUTIONAL RESEARCH SUPPORT:

#### Immune repertoire profiling in pancreatic cancer

Principle Investigator: Nancy L. Monson, Ph.D.

Agency: Cancer Center Pilot Grant | Period 10/25/2017 – 3/31/2020

The goal of this project is to establish a method for immune repertoire profiling by next generation sequencing here at UTSWMC and use this technology to profile the immune repertoire in pancreatic cancer.

#### **Antibody gene signature and auto-antibody profile of plasmablasts from early MS patients** Principle Investigator: Nancy L. Monson, Ph.D.

Agency: Beecherl Endowment to the Immunology Department | Period 12/1/2016 – no end date The goal of this project is to identify the antibody gene signature and auto-antibody profiles of plasmablasts from early MS patients using core facilities here on campus.

#### **Exercise reduces brain inflammation and improves quality of life in patients with early AD** Principal Investigator: Stowe/Monson/Zhang

Agency: Blondes vs Brunettes | Type: Gift | Period: 02/01/2015 – no end date The goal of this project is to determine the impact of exercise on brain inflammation and function in patients with early AD.

#### **Biomarkers for Early Detection of Cervical Cancer**

Principal Investigator: Lindsay G. Cowell, Ph.D | Co-Investigator: Nancy L. Monson, Ph.D. Agency: UT Southwestern Simmons Comprehensive Cancer Center Pilot Funding Period: 01/01/16 – 06/30/17 The goal of this project is identify features of immune repertoires that are predictive of either progression from cervical lesion to invasive cancer or of spontaneous resolution of cervical lesions.

#### Dysregulation of B cells in MS

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 15% Agency: National MS Society Type: Regular Grant Period: 10/1/2013 – 9/30/2015 The goal of this project is to determine the most

The goal of this project is to determine the mechanisms by which human peripheral B cells contribute to the neuroinflammatory response associated with MS.

#### Antibody gene signature in transverse myelitis

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 10% Agency: National MS Society Type: Regular Grant Period: 7/1/2012 - 9/30/2015

The goal of this project is to determine whether the antibody gene signature predicts conversion to MS in patients that have had one attack of transverse myelitis.

#### Immunophenotyping of early Alzheimer's Patients

Principal Investigators: Ryan Huebinger, Ph.D. (junior faculty) and Nancy L. Monson, Ph.D. (senior faculty)

Effort: 5% (no salary) Agency: Friends of the ADC Type: Pilot Grant Period: 5/1/2014 – 4/28/2015

The goal of this project is to determine the immunophenotype of early Alzheimer's patients.

Principle Investigator, "Molecular Analysis of the Ig Repertoire in MS", National Multiple Sclerosis Society, Grant No. RG 3267-A-1, 2009-2012.

Principle Investigator, "Molecular Analysis of the Ig Repertoire in MS", National Multiple Sclerosis Society, Grant No. RG 3267-A-1, 2005-2007.

Principle Investigator, "Contribution of B cells in the Pathogenesis of EAE", National Multiple Sclerosis Society, Pilot Project 2005-2006.

Principle Investigator, "Molecular Analysis of the Ig Repertoire in MS", National Multiple Sclerosis Society, Grant No. RG 3267-A-1, 2001-2004.

Principle Investigator, "Molecular Analysis of the Ig Repertoire in MS", Young Investigator Award, Wadsworth Foundation, 2002-2005.

Principle Investigator, "Molecular Analysis of the Ig Repertoire in MS", Yellow Rose Foundation, 2002-2003.

## COMPLETED INDUSTRY RESEARCH SUPPORT:

#### Efficacy of TG1101 and TG1202 in treatment of EAE

Principal Investigator: Nancy L. Monson, Ph.D Agency: TG Therapeutics | Type: Investigator Initiated Study | Period: 05/01/2016 – 04/30/2017 The goal of this project is to evaluate the efficacy of B cell depletion in combination with kinase inhibition on EAE severity and duration.

#### Remodeling gene expression by T and B cells in response to Copaxone therapy

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 10% Agency: TEVA Neuroscience Type: Regular Grant Period: 5/31/2015 – 12/31/2016 The major goals of this project are to determine the impact of Copaxone therapy on transcription of T and B cells in MS.

# Pre-clinical research on MEDI-551 in human multiple sclerosis (MS) and murine Experimental autoimmune encephalomyelitis (EAE)

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 15% Agency: MedImmune, Inc. Type: Sponsored Research Agreement Period: 10/1/2012 – 3/31/2015 The major goal of this project is to provide pre-clinical data for consideration as therapy of MS.

### Can B cells present MBP to T cells of MS Patients, and does Copaxone influence this interaction?

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 10% Agency: TEVA Neuroscience Type: Regular Grant Period: 12/01/06 – 12/31/2014 The major goals of this project are: 1) determine whether peripheral B cells from MS patients can present MBP to autologous T cells and 2) whether copaxone modifies this interaction.

#### Investigation of CSF survival cocktail

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 10% Agency: MedImmune, Inc. Type: Sponsored Research Agreement Period (estimated): 3/1/2012 – 3/31/2014

The major goal of this project is to determine validate a CSF cell survival cocktail developed by Dr. Monson's team for use in upcoming clinical trials planned by MedImmune in which CSF cell flow cytometry will be required to measure drug efficacy.

#### **Development of AGS for Clinical Diagnostics**

Principal Investigator: Nancy L. Monson, Ph.D. Effort: 25% Agency: DioGenix Type: Sponsored Research Agreement

Period: 5/1/2011 – 5/31/2013

The major goal of this project is to confirm and verify the Antibody Gene Signature as a diagnostic tool for MS, and ready it for clinical diagnostic development using UTSW #2106 patent as the foundation of the study.

Principal Investigator, "Effect of Rituximab on Primary Progressive Multiple Sclerosis", Genentech, Inc., 10/01/05 – 9/30/08.

## INTERNATIONAL INVITED SPEAKER:

- 1. Oligoclonal B cells in the Cerebrospinal Fluid of Patients with Early Multiple Sclerosis. 6<sup>th</sup> International Congress of Neuroimmunology, Edinburgh, Scotland, September 4-7, 2001.
- 2. Differential Expression of NKT cells in Multiple Sclerosis Patients. 6<sup>th</sup> International Congress of Neuroimmunology, Edinburgh, Scotland, September 4-7, 2001.
- 3. Effect of Rituximab on the peripheral blood and cerebrospinal fluid B cells in patients with primary progressive multiple sclerosis. 7<sup>th</sup> International Congress of Neuroimmunology, Venice, Italy, September 28<sup>th</sup>-October 2<sup>nd</sup>, 2004.
- 4. Features of B cell dysregulation in relapsing remitting multiple sclerosis. August 17, 2016; B cells in Autoimmunity, Taiwan. Host: Dr. Moncef Zouali
- 5. The unique capacity of VH4+ B cells to recognize gray matter targets. September 29, 2016; International Society of Neuroimmunology; Jerusalem, Israel. Host: Drs. Dimitri Karussis, Amit Baror, and Hartmut Wekerle

### NATIONAL INVITED SPEAKER:

- 1. Evidence that B cells are involved in the pathogenesis of MS, BIOGEN, Cambridge, MA, December 12, 2002.
- 2. Oligoclonal B cells in the Cerebrospinal Fluid of Patients with Early Multiple Sclerosis. B cells and Antibodies: Laboratory to Clinic; Autoimmunity Plenary; Keystone Symposia; Keystone, Colorado, January 15, 2003.
- 3. Potential Role of B cells in the Pathogenesis of Multiple Sclerosis. Department of Pharmacology and Cell Biophysics, University of Cincinnati, January 8, 2003.
- 4. B cell receptor signature motif in MS. Genentech Immunology Department seminar, South San Francisco, CA, March 10<sup>th</sup>, 2008.
- 5. Unique B cell receptor signature motif in MS, JAX Discovery Strategies, University of San Francisco, California, May 29<sup>th</sup>, 2008.
- 6. Potential Use of the B cell Receptor Signature Motif in Multiple Sclerosis as a Predictor of Disease Development, Consortium of MS Centers, Denver, CO, May 30<sup>th</sup>, 2008.
- 7. Sub-study results of OLYMPUS, Genentech MS Advisory Board, Los Angeles, California, June 12, 2008.
- 8. CSF B cell Signature in MS. Genentech B cell Summit: Targeting B cells in the Treatment of Immune Mediated Disease. Newport Beach, CA, September 10, 2008.
- 9. Potential Use of the B cell Receptor Signature Motif in Multiple Sclerosis as a Predictor of Disease Development. Novartis Global meeting, Miami, Florida, January 20-22, 2009.
- 10. Attack of the Brain and the immune suspects that make it happen. University of Arizona, Tuscon Arizona, September 21, 2009.
- 11. Memory B cells from relapsing remitting Multiple Sclerosis patients elicit functional responses by CD4+ T cells in response to neuro-antigens. Immunology 2010, Baltimore, MD, May 8, 2010.
- 12. Potential Impact of B cells on the Pathogenesis of MS. MedImmune, Inc., Gaithersburg, MD, July 13, 2011.
- 13. Autoimmune Mechanism of Multiple Sclerosis. The Groseclose Lecture. Emory and Henry College, Emory, VA, September 15, 2011.
- 14. Potential Impact of B cells on the Pathogenesis of MS. The Ohio State, Columbus, Ohio, November 1, 2011.

- 15. Do particular antibody genes drive development of MS? American Academy of Neuroscience, New Orleans, LA, April 24, 2012.
- 16. B cells that display a particular somatic hypermutation pattern in their antibody genes are unique to patients with Multiple sclerosis and recognize neurons and astrocytes. B cell Keystone meeting, Keystone Colorado, February 12, 2013.
- 17. Immune profiles in the central nervous system: What we know, what we need to know, and what it means. CYTO 2013, San Diego, CA, May 21, 2013.
- 18. A new frontier: Advent of antibody genetics in patient diagnosis. Kansas University Medical Center, Kansas City, KS, November 14, 2013.
- 19. Do particular antibody genes recognize gray matter cellular targets? Immunology 2014, Pittsburgh, PA, hosted by American Association of Immunology, May 2-6, 2014
- 20. New discoveries in MS research. On the Move luncheon in Oklahoma City OK, May 22, 2014
- 21. The Immunology of MS: A new frontier. Neurology Grand Rounds, at University of Wisconsin Madison; Madison, WI. Host: Dr. Paul Sondel, September 9, 2014
- 22. Immune Profiles in the Central Nervous System: What we know, what we need to know and what it means. Neurology Resident Lecture, at University of Wisconsin Madison; Madison, WI. Host: Dr. Paul Sondel, September 9, 2014
- 23. Role of B cells in MS. MS Challenge Walk Retreat, Door County, WI. Host: NMSS Wisconsin Chapter, September 20, 2014,
- 24. A new frontier: the advent of antibody genetics in patient diagnosis. Neuroimmunology Seminar, Johns Hopkins University, Baltimore, MD. Host: Dr. Peter Calabresi; February 17, 2015
- 25. The Immunology of Multiple Sclerosis: A New Frontier. Grand Rounds, TISCH Multiple Sclerosis Center, New York, NY. Host: Dr. Saud Sadiq; March 18, 2015
- 26. Residual EAE severity following B cell depletion is due to treatment-resistant plasma cells. Immunology 2015 in New Orleans, LA. Host: American Association of Immunologists; May 10, 2015
- 27. My experience as an academic scientist and inventor. Fast Forward Advisory Board informal interview, Boston, MA. Host: Mark Alegretti; November 11, 2015;
- MS and B cells. American Autoimmune Related Diseases (AARD) Colloquium on "Neuropsychiatric Manifestations of Autoimmune Disease" in Washington, DC. Hosts: Drs. Noel Rose and Betty Diamond; November 21, 2015
- 29. Dysregulation of B cells in relapsing remitting multiple sclerosis. Consortium of Multiple Sclerosis Centers, National Harbor, Maryland. Hosts: Drs. Ann Cross and Francisco Quintana; June 3, 2016
- 30. Dysregulation of B cells in relapsing remitting multiple sclerosis. Genentech, San Francisco, CA. Host: Dr. Ann Herman; June 23, 2016
- 31. Dysregulation of B cells in relapsing remitting multiple sclerosis. University of California at San Francisco. Host: Dr. Bruce Cree; June 24, 2016
- 32. Dysregulation of B cells in relapsing remitting multiple sclerosis. Liquid Biopsy Summit. San Francisco, CA; June 24, 2016
- Dysregulation of B cells in demyelinating diseases of the brain. Neuroimmunology Seminar Series, Harvard Medical School and Brigham and Women's Hospital; Boston, MA. Hosts: Drs. Vijay Kuchroo and Francisco Quintana; May 4, 2017
- Leader in the Field presentation: Pediatric and Adult Multiple Sclerosis: Do B Cells Play a Role? American Neurology Association Annual Meeting; San Diego, CA. Host: Drs. Gregory Wu and Ellen Mowry; October 15, 2017

- 35. B cell repertoire selection in early Multiple Sclerosis. Antibody Engineering and Therapeutics; San Diego, CA. Host: Dr. Nina Luning Prak; December 11, 2018
- 36. Introduction to the Immunology of Secondary Progressive MS. Novartis Preceptorship on SPMS; Dallas, TX. Host: Perdoceo Education Group, LLC; March 27, 2019.
- 37. B cell responses in adult and pediatric Multiple Sclerosis. Symposia: Understanding the mechanism of action of B-cell depleting drugs: what does that reveal about the role of B-cells in MS? Consortium of MS Centers Annual Meeting; Seattle, WA. Hosts: Drs. Ann Cross and Gregory Wu; May 30, 2019
- 38. Immunology of Minorities with MS. Minorities Advisory Board. Genentech, New York, NY. Hosts: Ashish Kothari and Tim Vartanian; August 10, 2019.
- 39. Biomarkers of Multiple Sclerosis. EMD Serono Summit, Boston, MA. Hosts: Shannon Colton and Caitlyn Scharn; December 11, 2019.
- 40. Multiple Sclerosis Journal Club with LSU. EMD Serono, ZOOM. Host: Caitlyn Scharn; November 12, 2020.

## **REGIONAL OR INSTITUTIONAL INVITED SPEAKER:**

- 1. Molecular Analysis of the Ig Repertoire in MS. Neurology Grand Rounds, University of Texas Southwestern Medical Center, March 28, 2001
- Investigation of Oligoclonal B cells and Regulatory NKT cells in the Pathogenesis of Multiple Sclerosis, Rheumatology Conference, University of Texas Southwestern Medical Center, February 4, 2002
- 3. Investigation of B cells in the Pathogenesis of Multiple Sclerosis, Neurology Grand Rounds, University of Texas Southwestern Medical Center, January 5, 2005
- 4. B cell receptor signature motif in MS. Rheumatology Conference, University of Texas Southwestern Medical Center, April 14, 2008
- 5. Potential Use of the B cell Receptor Signature Motif in Multiple Sclerosis as a Predictor of Disease Development, Texas MS Consortium, Coppell, Texas, May 1, 2008
- 6. Potential Use of the BCR Signature Motif in Predicting MS. Annual Meeting of the National MS Society Lonestar Chapter, San Antonio Texas, November 15, 2008
- 7. Potential Use of an Antibody Signature in MS as a predictor of disease development. NMSS Lonestar Chapter Research Consortium Webcast, November 19, 2008
- 8. Attack of the Brain and the Immune System suspects that make it happen. University of Texas Southwestern Medical Center Pediatrics Research Forum, Dallas, TX, January 14, 2010
- 9. Impact of Humoral Immunity on Multiple Sclerosis. University of Texas Southwestern Medical Center Immunology Graduate Program, Dallas, TX, May 5, 2010
- 10. Autoantibodies in Multiple Sclerosis. University of Texas Southwestern Medical Center Medical Student Training Program, Dallas, TX, October 5, 2010.
- 11. Autoantibodies in Multiple Sclerosis, Rare Neurologic Disorders Symposium, Dallas, TX, September 25, 2010
- Undiscovered County: A unique biomarker based on antibody genetics and Memory B cells activate brain specific T cells. University of Texas Southwestern Medical Center, MS Team Night, Dallas TX, January 27, 2011
- 13. Role of humoral immunity in CNS neurodegeneration. Institute of Exercise and Environmental Medicine, Dallas, TX, February 16, 2012
- 14. Dysregulation of B cells in Clinically Isolated Syndrome and Multiple Sclerosis. Transverse Myelitis Symposium, Dallas, TX, January 12, 2013

- 15. Antibodies from MS patients bind neurons and astrocytes: where do we go from here? Medical Student Training Program, UTSWMC, May 7, 2013
- 16. A new frontier in the diagnosis of MS. National MS Society Awards Banquet, Irving, TX, September 26, 2013
- 17. A new frontier: Advent of antibody genetics in patient diagnosis. Texas A&M University, College Station, TX, February 20, 2014
- 18. Human Studies Research. Post-doctoral ethics curriculum, UTSWMC, February 26, 2014
- 19. News from MS Basic Science: the advent of antibody genetics in patient diagnosis. Veteran's Administration MS Symposia, April 5, 2014
- 20. What can immunophenotyping tell us about Alzheimer's Disease? ADC Symposia, UTSWMC, March 28, 2014
- 21. The Monson Lab: A tour for the Wynne Family. Dallas, TX. Host: NMSS South Central Region; December 11, 2014
- 22. Introduction to Immunology. Host: Neuroimmunology Section meeting; October 29, 2020

## PUBLISHED ORIGINAL RESEARCH ARTICLES:

- Monson NL, Haughton VM, Modl JM, Sether LA, Ho KC. Normal and degenerating articular cartilage: in vitro correlation of MR Imaging and histologic finding. JMRI. 2:41-45, 1992. PMID: 1623279
- Farner NL, Voss SD, Sondel PM. XSCID and the common gamma Receptor Component: Prospects for Molecular Diagnosis. Clinical and Diagnostic Laboratory Immunology. 2:518-523, 1995. PMID: 8548528
- 3. **Farner NL**, Voss SD, Leary TP, Gan J, Hakimi J, Evans G, Ju G, Sondel PM. Distinction Between common gamma Detection and Function in YT lymphoid cells and in the GM-CSF responsive myeloid cell line, Tf-1. Blood. 86:4568-4578, 1995. PMID: 8541547
- de Jong JLO, Farner NL, Widmer M, Giri J, Sondel PM. Interaction of IL-15 with the Shared IL-2 Receptor beta and common gamma Subunits. J.Immunol. 156:1339-1348, 1996. PMID: 8568232
- 5. **Farner NL**, Gan J, deJong JLO, Leary TP, Fenske TS, Buckley P, Dunlap S, Sondel PM. Alteration of the CD34+ Tf-1beta Cell Line Profile in Response to Long-Term Exposure to IL-15. Cytokine. 9:315-327, 1997. PMID: 9195130
- de Jong JLO, Farner NL, Javorsky BR, Lindstrom MJ, Hank JA, Sondel PM. Differential quantitative effects of IL-2 and IL-15 on cytotoxic activity and proliferation by lymphocytes from patients receiving in vivo IL-2 therapy. Clinical Cancer Research. 5:1287-1296, 1998. PMID: 9607589
- de Jong JLO, Farner NL, Sondel PM. Distinctions in lymphocyte responses to IL-2 and IL-15 reflect differential ligand binding interactions with the IL-2Rbeta chain and suggest differential roles for the IL-2Ralpha and IL-15Ralph subunits. Cytokine. 10:920-930, 1998. PMID: 10049515
- 8. Dorner T, Brezinschek HP, Foster SJ, Brezinschek RI, **Farner NL**, Lipsky PE. Delineation of selective influences shaping the mutated expressed immunoglobulin heavy chain repertoire. J. Immunol. 160:2831-2841, 1998. PMID: 9510186
- 9. Dorner T, Brezinschek HP, Foster SJ, Brezinschek RI, **Farner NL**, Lipsky PE. Comparable impact of mutational and selective influences in shaping the expressed repertoire of peripheral IgM+/CD5- and IgM+/CD5+ B cells. Eur. J. Immunol. 28:657-668, 1998. PMID: 9521076

- Dorner T, Foster SJ, Farner NL, Lipsky PE. Somatic hypermutation of human immunoglobulin heavy chain genes: targeting of RGYW motifs on both DNA strands. Eur. J. Immunol. 28:3384-396, 1998. PMID: 9808208
- 11. Dorner T, Foster SF, **Farner NL**, Lipsky PE. Immunoglobulin kappa chain receptor editing in systemic lupus erythematosus. J. Clin. Invest. 102:688-694, 1998. PMID: 9710436
- Farner NL, Dorner T, Lipsky PE. Molecular and selective mechanisms influence the distribution of VlambdaJlambda rearrangements in normal human B cells. J. Immunol. 162:2137-2145, 1999. PMID: 9973488
- 13. Dorner T, **Farner NL**, Lipsky PE. Enhanced mutational activity of Vkappa gene rearrangements in systemic lupus erythematosus. Clin. Immunol. 92:188-196, 1999. PMID: 10444363
- Dorner T, Farner NL, Lipsky PE. Ig lambda and heavy chain gene usage in early untreated systemic lupus erythrematosus suggests intensive B cell stimulation. J. Immunol. 163:1027-1036, 1999. PMID: 10395701
- 15. Dorner T, **Farner NL**, Lipsky PE. Two mechanisms of somatic hypermutation of Ig V genes. The Immunologist. 7:153-162, 1999.
- 16. **Monson NL**, Dorner T, Lipsky PE. Targeting and Selection of Mutations in Human Vlambda Rearrangements. Eur. J. Imm. 30:1597-1605, 2000. PMID: 10898495
- Brezinschek HP, Dorner T, Monson NL, Brezinschek RI, Lipsky PE. The influence of CD40-CD154 interactions on the expressed human variable heavy chain repertoire. Int. Imm. 12:767-775, 2000. PMID: 10837404
- Lee J, Monson NL, and Lipsky PE. The VlambdaJlambda Repertoire in Human Fetal Spleen: Evidence for Positive Selection and Extensive Receptor Editing. J Immunol. 165:6322-6333, 2000. PMID: 11086069
- Monson NL, Fenske TS, de Jong JLO, Haak-Frendscho M, O'Shea J, and Sondel PM. A p74 common gamma receptor chain isoform facilitates IL-2 and IL-15 responses by the myelomonocytic cell line, Tf-1beta2. J. Leuk. Biol. 69:419-425, 2001. PMID: 11261789
- Frohman EM, Monson NL, Lovett-Racke AE, and Racke ME. Autonomic Regulation of Neuroimmunological Responses: Implications for Multiple Sclerosis. J. Clin. Immunol. 21:61-73, 2001. PMID: 11332655
- 21. **Monson NL**, Foster SJ, Brezinschek HP, Dorner T, Lipsky PE. The role of CD40-CD40 Ligand (CD154) interactions in generating the human immunoglobulin light chain repertoire. Clin. Immunol. 100:71-81, 2001. PMID: 11414747
- 22. Kaschner S, Hansen A, Jacobi A, Reiter K, **Monson NL**, Odendahl M, Burmester GR, Lipsky PE and Dorner T. Immunoglobulin Vlambda light chain gene usage in patients with Sjorgren's syndrome. Arthritis Rheum. 44:2620-2632, 2001. PMID: 11710718
- 23. Racke MK, Lovette-Racke AE, Karandikar NJ, Wilson SB, **Monson NL**. Myelin-reactive T cells and their regulation in Multiple Sclerosis. Neuroscience News 4:31-40, 2001.
- Yavuz S, Monson NL, Grammer A, Girschik H, Lipsky PE. Differential Patterns of Bcl6 and p53 gene mutations in Tonsillar B cells indicate separate mutational mechanisms. Mol. Immunol. 39:485-493, 2002. PMID: 12413700
- Monson NL, Brezinschek HP, Brezinschek RI, Mobley A, Vaughan GK, Frohman EM, Racke MK, Lipsky PE. Receptor revision and atypical mutational characteristics in clonally expanded B cells from the cerebrospinal fluid of recently diagnosed multiple sclerosis patients. J Neuroimmunol. 158:170-81, 2005. PMID: 15589051

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- 27. Paula S, **Monson NL**, Ball WJ, Jr. Molecular Modeling of Cardiac Glycoside Binding by the Monoclonal Human Sequence Antibody 1B3. Proteins, 60:382-391, 2005. PMID: 15971203
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- 43. Ireland S and **Monson NL**. Potential Impact of B cells on T cell function in Multiple Sclerosis. Mult Scler Int. 2011:423971, 2011. PMID: 22096636
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- 47. **Monson NL**, Ireland S, Ligocki AJ, Chen D, Rounds WH, LI M, Huebinger RM, Cullum CM, Greenberg BM, Stowe AM, Zhang R. Elevated CNS inflammation in patients with preclinical stage Alzheimer's disease. JCBFM, 34:30-33, 2013. PMID: 24149932
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