Curriculum Vitae

A. Identifying data:

1. Name: William Hewitt Robinson
2. Date of Birth: August 30, 1967
3. SSN: Upon request
4. Ethnicity: White
5. Citizenship: U.S. Citizen
6. California Medical License: A063606

B. Academic history:

1. Colleges and universities attended, degrees received, dates:

1989 B.S. Stanford University
1995 Ph.D. Stanford University, Program in Immunology
1996 M.D. Stanford University School of Medicine

2. Scholarships and honors:

1989 Award for "Excellence in Undergraduate Teaching", Department of Biology, Stanford University
1989 Distinction and Departmental Honors in Biology, Stanford University
1996 Dean's Award for "Excellence in Clinical Medicine", Stanford University School of Medicine

3. Post-doctoral and residency training:

1996 – 1997 Intern in Internal Medicine, University of California, San Francisco
1997 – 1998 Resident in Internal Medicine, Research Pathway, University of California, San Francisco
1998 – 2002 Fellow in Rheumatology, Stanford University School of Medicine

4. Board eligibility and boards passes, with date(s):

2000 – 2009 Diplomat, American Board of Internal Medicine
2003 - Diplomat, American Board of Internal Medicine - Rheumatology

C. Employment history:

2002 - 2003	Staff Physician, Division of Immunology and Rheumatology, Department of Medicine, Stanford University School of Medicine, Stanford, CA
2002 - 2003	Research Associate, Department of Neurology and Neurological Sciences, Stanford University School of Medicine, Stanford, CA
2003 – 2010	Assistant Professor of Medicine, Division of Immunology and Rheumatology, Department of Medicine, Stanford University School of Medicine, Stanford, CA
2003 – present	Staff Physician, VA Palo Alto Health Care System, Palo Alto, CA
2010 – present	Associate Professor of Medicine (with tenure), Division of Immunology and Rheumatology, Department of Medicine, Stanford University School of Medicine, Stanford, CA

D. Public and professional service:

2001	Instructor, Preparation for Clinical Medicine, Stanford University School of Medicine
2003	Abstract Review Committee for "Humoral aspects of autoimmune disease", American College of Rheumatology
2004 – 2006	Editorial Board, *Arthritis Research and Therapy*
2005	Organizing Committee, FOCIS Emerging Laboratory Technologies satellite symposium, Federation of Clinical Immunology Societies
2004 – 2006	Co-Founder and Acting Director, Stanford Human Immune Monitoring Core
2006 – 2008	Member, American College of Rheumatology Annual Meeting Planning Committee
2004 – 2010	Program in Immunology Postdoctoral Committee, Stanford University
2004 – present	Director, VA Palo Alto Proteomics Core Facility
2005 – 2008	Biomedical Subcommittee, VA Palo Alto Health Care System
2005 – present	Medical and Scientific Committee, Arthritis Foundation Northern California Chapter
2006 – 2009	American College of Rheumatology Annual Meeting Abstract Review Committee
2006 – present	Associate Editor, *Arthritis Research and Therapy*
2006 – 2009	Stanford Human Immune Monitoring Core Steering Committee
2007 – present	Ad-Hoc Reviewer and now member of the ACTS Study Section, NIH NIAMS
2008 – present	Chair, VA Palo Alto Information Technology Committee
2008 – present	Program in Immunology Predoctoral Committee, Stanford University
2009 – 2011	Committee on Journal Publications, American College of Rheumatology
2010 – 2016	Associate Editor, *Clinical Immunology*
2010 – present	Director, Stanford Arthritis Center
2011 – present	Board of Directors, Federal Clinical Immunology Societies (FOCIS)
2011 – 2012	Blue Ribbon Task Force on Academic Rheumatology, American College of Rheumatology
2012 – 2016	Board of Directors, American College of Rheumatology (ACR) Rheumatology Research Foundation (RRF)
2013	Chair, Core Portfolio Review, American College of Rheumatology (ACR) Rheumatology Research Foundation (RRF)
2013 – present	PI, Stanford-UCSF Arthritis Foundation Center of Excellence
2014 – present	PI, Stanford NIH AMP Technology Center
2015 – present	Associate Editor, *Arthritis and Rheumatology*
2016 – present	Board of Directors, American College of Rheumatology (ACR)
2016 – present	Co-PI and Co-Director, NIH T32 Training Program in Adult and Pediatric Rheumatology at Stanford University

Invited journal reviewer:

American Journal of Medicine
Arthritis Research and Therapy
Arthritis and Rheumatism
Annals of Rheumatic Disease
Clinical Chemistry
European Journal of Immunology
Journal of Clinical Investigation
Journal of Experimental Medicine
Journal of Immunology
Journal of Rheumatology
Nature
Nature Biotechnology
Nature Immunology
Nature Medicine
New England Journal of Medicine
PLOS Medicine
PLOSOne
Proceedings of the National Academy of Sciences
Proteomics
Science
Science Translational Medicine

E. Post-degree honors and awards, and memberships in professional association and societies:

Awards and honors:

1996	Stanford Excellence in Clinical Medicine Award
1998	UCSF Molecular Medicine Fellow
2001	American College of Rheumatology, Rheumatology Fellow Award
2001	Federation of Clinical Immunology Societies (FOCIS) Millennium Pharmaceuticals Trainee Award for contributions to genomics/proteomics research
2003	Arthritis Foundation, Arthritis Investigator Award
2004	Donald and Delia Baxter Fellow
2007	Clinical Teaching Award, Department of Medicine, Stanford University
2010	Election to the Henry Kunkel Society
2010	Henry Kunkel Young Investigator Award, American College of Rheumatology
2010	Outstanding Mentor Award, Program in Immunology, Stanford University
2010	Election to the American Society of Clinical Investigation (ASCI)

Memberships in professional associations:

American College of Rheumatology

Federation of Clinical Immunology Societies
American Association of Immunologists
American Medical Association

Research funding:

Past:

1999 - 2000 Postdoctoral Research Fellowship for Physicians Award, Howard Hughes Medical Institute

2001 - 2003 Northern California Arthritis Foundation Chapter Grant
"DNA Vaccine-Mediated Immunotherapy for an Animal Model of Rheumatoid Arthritis"
PI: W. Robinson

2002 - 2004 Northern California Arthritis Foundation Chapter Grant
"Protein Arrays to Characterize the Autoantibody Response in Rheumatoid Arthritis"
PI: Mark Genovese, M.D.
Co-investigator: W. Robinson

2004 – 2005 NIH U19 Pilot Proposal
"Development of lipid microarrays to study autoantibody responses in Multiple Sclerosis"
PI: W. Robinson

2004 – 2006 Northern California Arthritis Foundation Chapter Grant
"DNA Vaccination Immunotherapy for the Collagen-Induced Arthritis Model of Rheumatoid Arthritis"
PI: W. Robinson

2000 - 2005 K08 AR02133-02
"DNA vaccine immunotherapy of rheumatic disease"
PI: W. Robinson

2005 – 2007 ACR Junior Career Development Award
"Protein microarray characterization of rheumatoid arthritis in the geriatric population"
PI: W. Robinson

2003 - 2008 Arthritis Investigator Award, Arthritis Foundation
"Protein microarrays to guide tolerizing DNA vaccine treatment of rheumatoid arthritis"
PI: W. Robinson

2007 – 2009 NIH R21
"Anti-Fibrinogen Autoimmunity in Rheumatoid Arthritis"
PI: W. Robinson

2002 - 2009 N01-HV-28183
"Proteomic analysis of blood components in autoimmune disease"
Contract PI: Garry Nolan, Ph.D.
Project 3: "Antigen array profiling of autoantibody in blood"

Project 3 PI: W. Robinson

2008 – 2010 Roche Diagnostics
"Response Prediction for Anti-TNF Therapies"
PI: W. Robinson

2008 – 2010 NIH Autoimmunity Centers of Excellent Grant
"Switching Anti-TNF Agents In Patients with RA with An Inadequate Response To TNF Inhibition"
PI: Lawrence Moreland, MD (University of Pittsburg)
Role: Co-Investigator

2008 – 2010 American College of Rheumatology, Within-Our-Reach Grant
"Multi-Cytokine Profiling and Correlates with Outcome Measures and Treatment Responses in Patients with Early Rheumatoid Arthritis"
PI: Lawrence Moreland, MD (University of Pittsburg)
Role: Co-Investigator

2009 – 2011 American College of Rheumatology, Within-Our-Reach Grant
"The role of carboxypeptidase B and its substrates in rheumatoid arthritis"
PI: W. Robinson

2009 – 2011 NIH NHLBI, Women's Health Initiative
"Evaluation of Specific Markers of Rheumatoid Arthritis, Inflammation, Thrombogenesis, and Risk of Cardiovascular Disease and Total Mortality"
PI: Lawrence Moreland, MD (University of Pittsburg)
Role: Co-Investigator

2008 – 2011 Guthy-Jackson Foundation
"Proteomic Studies Leading to Development of Tolerizing Therapy in Neuromyelitis Optica"
PI: Lawrence Steinman, MD
Role: Co-Investigator

2010 – 2011 Genentech
"Characterization of biomarkers for response to Rituximab in rheumatoid arthritis"
Role: PI

2009 – 2012 NIH Challenge Grant RC1 AR058713
"Clinically Actionable Biomarkers for Rheumatoid Arthritis"
Role: PI

2007 – 2012 NIH R01-NS-055997
"Autoantibody Arrays Guide Tolergenic Therapy for Multiple Sclerosis"
PI: Lawrence Steinman, MD
Role: Co-Investigator

2006 – 2012 NIH U19 AI050864
"Rheumatoid Arthritis: Biomarkers of Progression from Autoimmunity to Disease"
PI: George Eisenbarth, MD, PhD (University of Colorado)
Role: Co-Investigator

2009 – 2012 NIH GO Grant
"Treatment Efficacy and Toxicity in RA Database and Repository (TETRAD)."
PI: S. Louis Bridges, MD, PhD (University of Alabama Birmigham)
Role: Co-Investigator

2005 - 2013 VA Merit Award
"Anti-lipid autoimmunity in multiple sclerosis"
PI: W. Robinson

2007 - 2013 NIH NIAMS R01-AR-054822
"Tyrosine kinase pathways in rheumatoid arthritis"
PI: W. Robinson

2010 – 2014 NIH NIAID R01-AI085268
"Carboxypeptidase B and as a Regulator of Inflammation in RA"
PI: W. Robinson

2011 – 2015 NIH 1RO1AR062376 University of Alabama (Bridges)
Dissection of the ACPA response in African-Americans with Rheumatoid Arthritis
Role: Co-Investigator

2010 – 2016 NIH N01-HV-00242 NHLBI Proteomics Center (Nolan)
"Proteomics of Inflammation, Immunity and Pulmonary Arterial Hypertension"
Contract PI: Garry Nolan, PhD
Project 3 PI: W. Robinson

2008 - 2016 VA Merit Award (Robinson)
"Inflammatory mechanisms in traumatic joint injury and repair"
PI: W. Robinson

Active:

2014 – 2017 NIH R33 CA183659 (Robinson)
Large-Scale Characterization of Antibody Responses in Lung Adenocarcinoma
PI: W. Robinson

2013 – 2018 NIH NIAMS R01-AR063676 (Robinson)
"Large-Scale Characterization of Autoantibody Responses in Rheumatoid Arthritis."
PI: W. Robinson

2014 – 2019 NIH NIAMS UH2 AR067681 (Robinson)
Stanford Accelerated Medicines Partnerships (STAMP) Technology Center
Goals: To lead a technology center for the NIH AMP program to apply single-cell analysis technologies to investigate RA and SLE.
PI: W. Robinson

2014 –2019 NIH NIAMS UH2 AR067681(Utz)
Accelerated Medicines Partnerships (AMP) Leadership Center
Goals: To orchestrate an international consortium to apply single-cell analysis technologies to investigate RA and SLE.
Role: Co-Investigator

2013 - 2017 VA Merit Award (Robinson)
"The role of coagulation and fibrinolysis in traumatic joint injury"
PI: W. Robinson

2014 - 2018 VA Merit Award (Robinson)
"The role of Fc receptors in traumatic joint injury"
PI: W. Robinson

2012 – 2017 NIH U01 subcontract (Holers)
Specific Tolerance Induction in Preclinical Rheumatoid Arthritis
Role: Co-Investigator (PI for sub-contract)

2014 – 2019 NIH U19 AI110491 (Utz)
Stanford Autoimmunity Center of Excellence
To characterize autoreactive B and T cell responses in RA and SLE.
Role: Co-Investigator (PI for Principal Project)

2013 – 2017 UCSF-Stanford Center of Excellence (Robinson [Stanford] and Nakamura [UCSF])
Investigation of Inflammatory Mechanisms in Arthritis
PI: W. Robinson

2014 – 2019 NIH U19 AI057229 (Davis)
Genetic and Environmental Factors in Response to Influenza Vaccination.
Role: Co-Investigator (PI for Project 3)

2016 – 2021 NIH 2R01AR04252720 (Weyand)
Oligoclonal T cell expansion in rheumatoid arthritis.
Role: Co-Investigator

2016 – 2021 NIH T32 AR050942 Sandborg (PI), Robinson (Co-PI)
Training Program in Adult and Pediatric Rheumatology
Role: Co-PI

F. Publications:

1. <u>Peer-reviewed articles (from 130+):</u>

1. **Robinson WH**, Ying H, Miceli MC, and Parnes JR. Extensive polymorphism in the extracellular domain of the mouse B cell differentiation antigen Lyb-2/CD72. *J. Immunol.* 149:880-6, 1992.

2. **Robinson WH**, Tutt-Landolfi MM, Schafer H, and Parnes JR. Biochemical identity of the mouse Ly-19.2 and Ly-32.2 alloantigens with the B cell differentiation antigen Lyb-2/CD72. *J. Immunol.* 151:4764-4772, 1993.

3. Ying H, Nakayama E, **Robinson WH**, and Parnes JR. Structure of the mouse CD72 (Lyb-2) gene and its alternatively spliced transcripts. *J. Immunol.* 154:2743-2752, 1995.

4. **Robinson WH**, Neuman de Vegvar HE, Prohaska SS, Rhee JW, and Parnes JR. Human CD6 possesses a large, alternatively spliced cytoplasmic domain. *Eur. J. Immunol.* 25:2765-9, 1995.

5. **Robinson WH**, Prohaska SS, Santoro JC, Robinson HL, and Parnes JR. Identification of a mouse protein homologous to the human CD6 T cell surface protein and sequence of the corresponding cDNA. *J. Immunol.* 155:4739-4748, 1995.

6. **Robinson WH**, Tutt-Landolfi MM, and Parnes JR. Allele-specific expression of the mouse B cell surface protein CD72 in T cells. *Immunogenetics* 45:195-200, 1997.

7. **Robinson WH**, Genovese MC, Morland LW. Demyelinating and neurologic events reported in association with TNFα-antagonism: By what mechanisms could TNFα antagonists improve RA but exacerbate MS? *Arthritis Rheum.* 44(9):1977-83, 2001.

8. **Robinson WH**, Steinman L, Utz PJ. Proteomics technologies to study and develop therapies for autoimmune disease: Antigen Microarray Characterization of Autoantibody Responses. *Arthritis Rheum.* 46:885-93, 2002.

9. **Robinson WH**, Garren H, Utz PJ, Steinman L. Proteomics technologies for development of therapies for autoimmune disease. *Clinical Immunology* 103:7-12, 2002.

10. Huber W, Utz PJ, Steinman L, **Robinson WH**. Autoantibody profiling for the study and treatment of autoimmune disease. *Arthritis Research* 4:290-5, 2002.

11. **Robinson WH,** Steinman L, Utz PJ. Protein and peptide array analysis of autoimmune disease. *BioTechniques*, Dec. Suppl:66-9, 2002.

12. **Robinson WH**, DiGennaro C, Hueber W, Haab BB, Kamachi M, Dean EJ, Fournel S, Fong D, Genovese MC, de Vegvar HE, Steiner G, Hirschberg DL, Muller S, Pruijn GJ, van Venrooij WJ, Smolen JS, Brown PO, Steinman L, Utz PJ. Antigen arrays for multiplex characterization of autoantibody responses. *Nature Medicine* 8:295-301, 2002.

13. Huber W, Utz PJ, **Robinson WH.** Autoantibodies in Early Arthritis: Advances in Diagnosis and Prognostication. *Clinical Experimental Rheumatology*, 21(5 Suppl 31):S59-64, 2003.

14. **Robinson WH**, Fontoura P, Lee BJ, Neuman de Vegvar HE, Tom J, Pedotti R, DiGennaro CD, Mitchell DJ, Fong D, Ho PPK, Ruiz P, Maverakis E, Stevens DA, Bernard CCB, Martin R, Kuchroo VK, van Noort VM, Genain Cp, Amor S, Olsson T, Utz PJ, Garren H, Steinman L. Protein microarrays guide DNA vaccine treatment of autoimmune encephalomyelitis. *Nature Biotechnology*, 21:1033-1039, 2003.

15. Neuman de Vegvar H, Amara RR, Steinman L, Utz PJ, Robinson HL, **Robinson WH**. Microarray profiling of anti-SHIV antibody responses: Post-challenge convergence of reactivities independent of host genotype and vaccination regimen. *J. Virology*, 77:11125-38, 2003.

16. **Robinson WH,** Utz PJ, Steinman L. Genomic and proteomic analysis of multiple sclerosis. *Current Opinion in Immunology*, 15:660-7, 2003.

17. Utz PJ, Genovese MC, **Robinson WH.** Unlocking the "PAD" lock on rheumatoid arthritis. *Annals Rheum Disease*, 63:330-2, 2004.

18. Neuman de Vegvar H, **Robinson WH**. Microarray profiling of antiviral antibodies for the development of diagnostics, vaccines, and therapeutics. *Clinical Immunology*, 111:196-201, 2004.

19. Magnano MD, **Robinson WH,** Genovese MC. Demyelination and inhibition of tumor necrosis factor (TNF). *Clin Exp Rheumatol*. 22(5 Suppl 35):S134-40, 2004.

20. Hueber W, Zeng D, Sharpe O, **Robinson WH**, Strober S, Utz PJ. Characterization of novel antigens recognized by serum autoantibodies from anti-CD1 TCR-transgenic lupus mice. *Eur J Immunol*. 34:1654-62, 2004.

21. Graham KL, **Robinson WH**, Steinman L, Utz PJ. High-throughput methods for measuring autoantibodies in systemic lupus erythematosus and other autoimmune diseases. *Autoimmunity* 37(4):269-72, 2004.

22. Fontoura P, Ho PP, DeVoss J, Zheng B, Lee BJ, Kidd BA, Garren H, Sobel RA, **Robinson WH**, Tessier-Lavigne M, Steinman L. Immunity To The Extracellular Domain Of NOGO-A Modulates Experimental Autoimmune Encephalomyelitis. *J Immunol.*, 173:6981-92, 2004.

23. Vossenaar ER, **Robinson WH**. Citrullination and autoimmune disease: 8th Bertine Koperberg meeting. *Annals Rheumatic Disease* 64:1513-5, 2005.

24. Hueber W, Kidd BA, Tomooka BH, Lee BJ, Bruce B, Sonderstrup G, Monach P, Drijfhout J-W, van Venrooij WJ, Utz PJ, Genovese MC, **Robinson WH.** Antigen microarray analysis of rheumatoid arthritis. *Arthritis Rheum,* 52:2645-55, 2005.

25. Steinman L, Utz PJ, **Robinson WH.** Suppression of autoimmunity via microbial mimics of altered peptide ligands. *Curr Top Microbiol Immunol.* 296:55-63, 2005.

26. Platten M, Ho PP, Youssef S, Garren H, Fontoura P, Hur EM, Gupta R, Lee LY, Kidd BA, **Robinson WH**, Sobel RA, Selley ML, Steinman L. Treatment of established autoimmune neuroinflammation with 3,4-DAA, an orally active synthetic tryptophan metabolite. *Science*, 310:850-5, 2005.

27. Ho PP, Fontoura P, Platten M, Sobel RA, DeVoss JJ, Lee LY, Kidd BA, Tomooka BH, Capers J, Agrawal A, Gupta R, Zernik J, Yee MK, Lee BJ, Garren H, **Robinson WH,** Steinman L. A suppressive oligodeoxynucleotide enhances the efficacy of myelin cocktail/IL-4-tolerizing DNA vaccination and treats autoimmune disease. *J Immunol.* 175(9):6226-34, 2005.

28. **Robinson, WH.** Antigen arrays for antibody profiling. *Curr Opin Chem Biol.* 10:67-72, 2006.

29. Kanter JL, Narayana S, Ho PP, Catz I, Warren KG, Sobel RA, Steinman L, **Robinson WH.** Lipid microarrays identify key mediators of autoimmune brain inflammation. *Nature Medicine*, 12:138-43, 2006.

30. Kuhn K, Kulik L, Tomooka BH, Braschler KJ, Arend WP, **Robinson WH**, Holers VM. Antibodies to citrullinated proteins enhance tissue injury in experimental arthritis. *J. Clinical Investigation*, 116(4):961-73, 2006.

31. Wang KC, Kanter JL, **Robinson WH**, Frank CW. Fluid supported lipid bilayers containing monosialoganglioside GM1: A QCM-D and FRAP study. *Colloids Surf. B. Biointerfaces* 50(1):76-84, 2006.

32. Hueber W, **Robinson WH**. Proteomic biomarkers for autoimmune disease. *Proteomics*, 6(14):4100-5, 2006.

33. Paniagua RT, Sharpe O, Ho PP, Chan SM, Chang A, Higgins JP, Tomooka BH, Thomas FM, Song JJ, Goodman SB, Lee DM, Genovese MC, Utz PJ, Steinman L, **Robinson WH.** Selective tyrosine kinase inhibition by imatinib mesylate for the treatment of experimental arthritis. *J. Clinical Investigation*, 116(10):2633-2642, 2006.

34. Ho PP, Higgins JP, Kidd BA, Tomooka B, Digennaro C, Lee LY, de Vegvar HE, Steinman L, **Robinson WH**. Tolerizing DNA vaccines for autoimmune arthritis. *Autoimmunity* 39:675-82, 2006.

35. Hueber W, Tomooka BH, Zhao X, Kidd BA, Drijfhout JW, Fries JF, Van Venrooij WJ, Metzger AL, Genovese MC, **Robinson WH.** Proteomic analysis of secreted proteins in early rheumatoid arthritis: Anti-citrulline reactivity is associated with upregulation of proinflammatory cytokines. *Annals Rheumatic Dis.* 66(6):712-9, 2007.

36. O'connor KC, McLaughlin KA, De Jager PL, Chitnis T, Bettelli E, Xu C, **Robinson WH**, Cherry SV, Bar-Or A, Banwell B, Fukaura H … Idrissova Z, Viglietta V, Rostasy K, Pohl D, Dale RC, Freedman M, Steinman L, Buckle GJ, Kuchroo VK, Hafler DA, Wucherpfennig KW. Self-antigen tetramers discriminate between myelin autoantibodies to native or denatured protein. *Nature Medicine*, 13:211-217, 2007.

37. Paniagua RT, **Robinson WH.** Imatinib in the rheumatic diseases. *Nature Clinical Pract. Rheum.* Nature Clinical Pract. Rheum. 2007 3(4):190-1, 2007.

38. Elchuri S, Naeemuddin M, Sharpe O, **Robinson WH**, Huang TT. Identification of biomarkers associated with the development of hepatocellular carcinoma in CuZn superoxide dismutase deficient mice. *Proteomics* 7(12):2121-9, 2007.

39. Ousman SS, Tomooka BH, van Noort JM, Wawrousek EF, O'conner K, Hafler DA, Sobel RA, **Robinson WH**, Steinman L. Protective and therapeutic role for alphaB-crystallin in autoimmune demyelination. *Nature* 448(7152):474-9, 2007.

40. Ray S, Britschgi M, Herbert C, Takeda-Uchimura Y, Boxer A, Blennow K, Friedman LF, Galasko DR, Jutel M, Karydas A, Kaye JA, Leszek J, Miller BL, Minthon L, Quinn JF, Rabinovici GD, **Robinson WH**, Sabbagh MN, So YT, Sparks DL, Tabaton M, Tinklenberg J, Yesavage JA, Tibshirani R, Wyss-Coray T. Classification and prediction of clinical Alzheimer's diagnosis based on plasma signaling proteins. Nature Medicine 13(11):1359-62, 2007.

41. Bar-Or A, Vollmer T, Antel J, Arnold DL, Bodner CA, Campagnolo D, Gianettoni J, Jalili F, Kachuck N, Lapierre Y, Niino M, Oger J, Price M, Rhodes S, **Robinson WH**, Shi FD, Utz PJ, Valone F, Weiner L, Steinman L, Garren H. Induction of Antigen-Specific Tolerance in Multiple Sclerosis After Immunization With DNA Encoding Myelin Basic Protein in a Randomized, Placebo-Controlled Phase 1/2 Trial. *Archives Neurol.* 64(10):1407-15, 2007.

42. Han M, Hwang S, Roy D, Lundgren D, Price JV, Ousman S, Fernald G, Gerlitz B, **Robinson WH**, Baranzini SE, Grinnell BW, Raine CS, Sobel RA, Han DK, and Steinman L. Proteomic Analysis of Active Multiple Sclerosis Lesions Reveals Therapeutic Targets. *Nature*, 451(7182):1076-81, 2008.

43. Garren H*, **Robinson WH***, Krasulová E, Nadj C, Selmaj K, Losy J, Nadj I, Radue E-W, Kidd BA, Gianettoni J, Tersini K, Utz PJ, Valone F, Steinman L and the BHT-3009 Study Group3.

Phase 2b Trial of a DNA Vaccine Encoding Myelin Basic Protein for Multiple Sclerosis. *Annals Neurology,* 63(5):611-20, 2008. *co-first authors

44. Kuhn KA, Cozine CL, Tomooka B, **Robinson WH,** Holers VM. Complement receptor CR2/CR1 deficiency protects mice from collagen-induced arthritis and associates with reduced autoantibodies to type II collagen and citrullinated antigens. *Mol Immunol.* 45(10):2808-19, 2008.

45. Hill JA, Bell DA, Brintnell W, Yue D, Wehrli B, Jevnikar AM, Lee DM, Hueber W, **Robinson WH**, Cairns E. Arthritis induced by posttranslationally modified (citrullinated) fibrinogen in DR4-IE transgenic mice. *J Exp Med.* 205(4):967-79, 2008.

46. Romero-Sánchez C, **Robinson WH**, Tomooka BH, Londoño J, Valle-Oñate R, Huang F, Deng X, Zhang L, Yang C, Yu DT. Identification of acute phase reactants and cytokines useful for monitoring infliximab therapy in ankylosing spondylitis. *Clin Rheumatol.* 27(11):1429-35, 2008.

47. Shachaf CM, Gentles AJ, Elchuri S, Sahoo D, Soen Y, Sharpe O, Perez OD, Chang M, Mitchel D, **Robinson WH**, Dill D, Nolan GP, Plevritis SK, Felsher DW. Genomic and proteomic analysis reveals a threshold level of MYC required for tumor maintenance. *Cancer Res.* 2008 Jul 1;68(13):5132-42.

48. Leung LL, Myles T, Nishimura T, Song JJ, **Robinson WH**. Regulation of tissue inflammation by thrombin-activatable carboxypeptidase B (or TAFI). *Mol Immunol.* 2008 Aug 13. [Epub ahead of print]

49. Zhao X, Okeke NL, Sharpe O, Batliwalla FM, Ho PP, Tomooka BH, Gregersen PK, **Robinson WH**. Circulating Immune Complexes Contain Fibrinogen in Rheumatoid Arthritis. *Arthritis Research Therapy,* 10(4):R94, 2008, epub ahead of print.

50. Kidd BA, Ho PP, Sharpe O, Zhao X, Tomooka BH, Kanter JL, Steinman L, **Robinson WH**. Epitope spreading to citrullinated antigens in mouse models of autoimmune arthritis and demyelination. *Arthritis Research Therapy, 1*0(5):R119, 2008, Epub ahead of print.

51. Small TN, **Robinson WH**, Miklos DB. B cells and transplantation: an educational resource. *Biol Blood Marrow Transplant.* 15(1 Suppl):104-13, 2009.PMCID: PMC2944827; PMID: 19147088

52. Li H, Chen W, Zhou Y, Abidi P, Sharpe O, **Robinson WH**, Kraemer FB, Liu J. Identification of mRNA-binding proteins that regulate the stability of LDL receptor mRNA through AU-rich elements. *J Lipid Res.* 50(5):820-31, 2009. PMCID: PMC2666168; PMID: 19141871.

53. Chung L, Fiorentino DF, BenBarak MJ, Adler AS, Mariano MM, Paniagua RT, Milano A, Connolly MK, Ratiner BD, Wiskocil RL, Whitfield ML, Chang HY, **Robinson WH**. Molecular framework for response to imatinib mesylate in systemic sclerosis. *Arthritis & Rheumatism*, 60(2):584-91, 2009. PMCID: PMC2638060; PMID: 19180499.

54. Britschgi M, Olin CE, Johns HT, Takeda-Uchimura Y, LeMieux MC, Rufibach K, Rajadas J, Zhang H, Tomooka B, **Robinson WH**, Clark CM, Fagan AM, Galasko DR, Holtzman DM, Jutel M, Kaye JA, Lemere CA, Leszek J, Li G, Peskind ER, Quinn JF, Yesavage JA, Ghiso JA, Wyss-Coray T. Neuroprotective natural antibodies to assemblies of amyloidogenic peptides decrease with normal aging and advancing Alzheimer's disease. *Proc Natl Acad Sci U S A.* 106(29):12145-50, 2009. PMCID: PMC2715538; PMID: 19581601.

55. Coffey GP, Rajapaksa R, Liu R, Sharpe O, Kuo CC, Krauss SW, Sagi Y, Davis RE, Staudt LM, Sharman JP, **Robinson WH**, Levy S. Engagement of CD81 induces ezrin tyrosine phosphorylation and its cellular redistribution with filamentous actin. *J. Cell Sci.* 122(Pt 17):3137-44, 2009. PMCID: PMC2729262; PMID: 19654214.

56. Swansan CD, Lindstrom TM, Paniagua RT, **Robinson WH**. Tyrosine kinases as targets for the treatment of rheumatoid arthritis. *Nature Reviews Rheumatology*, 5(6):317-24, 2009. PMCID: PMC390346; PMID: 19491913.

57. Hueber W, Tomooka BH, Batliwalla F, Li W, Monach PA, Tibshirani RJ, Van Vollenhoven RF, Lampa J, Saito K, Tanaka Y, Genovese MC, Klareskog L, Gregersen PK, **Robinson WH**. Blood autoantibody and cytokine profiles predict response to anti-tumor necrosis factor therapy in rheumatoid arthritis. *Arthritis Res Ther.* 11(3):R76, 2009. PMCID: PMC2714123; PMID: 19460157.

58. Monach PA, Hueber W, Kessler B, Tomooka BH, Benbarak M, Simmons BP, Wright J, Thornhill TS, Monestier M, Ploegh H, **Robinson WH**, Mathis D, Benoist C. A broad screen for targets of immune complexes decorating arthritic joints highlights deposition of nucleosomes in rheumatoid arthritis. *Proc. Natl. Acad. Sci.* 106(37):15867-72, 2009. PMCID: PMC2747210; PMID: 19720992.

59. Coffey GP, Rajapaksa R, Liu R, Sharpe O, Kuo CC, Krauss SW, Sagi Y, Davis RE, Staudt LM, Sharman JP, **Robinson WH**, Levy S. Engagement of CD81 induces ezrin tyrosine phosphorylation and its cellular redistribution with filamentous actin. *J Cell Sci.* 122:3137-44, 2009. PMCID: PMC2729262; PMID: 19654214.

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143. Lahey LJ, Panas MW, Mao R, Delanoy M, Flanagan JJ, Binder SR, Rebman AW, Montoya JG, Soloski MJ, Steere AC, Dattwyler RJ, Arnaboldi PM, Aucott JN, **Robinson WH**. Development of a Multiantigen Panel for Improved Detection of Borrelia burgdorferi Infection in Early Lyme Disease. *J Clin Microbiol.* 2015 53(12):3834-41. doi: 10.1128/JCM.02111-15. Epub 2015 Oct 7. PMID: 26447113

144. Ligocki AJ, Rivas JR, Rounds WH, Guzman AA, Li M, Spadaro M, Lahey L, Chen D, Henson PM, Graves D, Greenberg BM, Frohman EM, Ward ES, **Robinson W**, Meinl E, White CL 3rd, Stowe AM, Monson NL. A Distinct Class of Antibodies May Be an Indicator of Gray Matter Autoimmunity in Early and Established Relapsing Remitting Multiple Sclerosis Patients. *ASN Neuro.* 2015 7(5). pii: 1759091415609613. doi: 10.1177/1759091415609613. Print 2015 Sep-Oct.

145. Wampler Muskardin T, Vashisht P, Dorschner JM, Jensen MA, Chrabot BS, Kern M, Curtis JR, Danila MI, Cofield SS, Shadick N, Nigrovic PA, St Clair EW, Bingham CO 3rd, Furie R, **Robinson W**, Genovese M, Striebich CC, O'Dell JR, Thiele GM, Moreland LW, Levesque M, Bridges SL Jr, Gregersen PK, Niewold TB. Increased pretreatment serum IFN-β/α ratio predicts non-response to tumour necrosis factor α inhibition in rheumatoid arthritis. *Ann Rheum Dis.* 2015 annrheumdis-2015-208001. doi: 10.1136/annrheumdis-2015-208001. [Epub ahead of print] PMID: 26546586

146. Corsiero E, Bombardieri M, Carlotti E, Pratesi F, **Robinson W**, Migliorini P, Pitzalis C. Single cell cloning and recombinant monoclonal antibodies generation from RA synovial B cells reveal frequent targeting of citrullinated histones of NETs. *Ann Rheum Dis.* 2015 annrheumdis-2015-208356. doi: 10.1136/annrheumdis-2015-208356. [Epub ahead of print] PMID: 26659717

147. **Robinson WH**, Mao R. Biomarkers to guide clinical therapeutics in rheumatology? *Curr Opin Rheumatol.* 2016 28(2):168-75. doi: 10.1097/BOR.0000000000000250. PMID: 26720904

148. Abrams GD, Luria A, Carr RA, Rhodes C, **Robinson WH**, Sokolove J. Association of synovial inflammation and inflammatory mediators with glenohumeral rotator cuff pathology. J Shoulder Elbow Surg. 2016 Jan 14. pii: S1058-2746(15)00582-0. doi: 10.1016/j.jse.2015.10.011. [Epub ahead of print] PMID: 26775747

149. Sajda T, Hazelton J, Patel M, Seiffert-Sinha K, Steinman L, **Robinson W**, Haab BB, Sinha AA. Multiplexed autoantigen microarrays identify HLA as a key driver of anti-desmoglein and -non-desmoglein reactivities in pemphigus. *Proc Natl Acad Sci U S A.* 2016 113(7):1859-64. doi: 10.1073/pnas.1525448113. PMID: 26831096

150. Kragstrup TW, Greisen SR, Nielsen MA, Rhodes C, Stengaard-Pedersen K, Hetland ML, Hørslev-Petersen K, Junker P, Østergaard M, Hvid M, Vorup-Jensen T, **Robinson WH**, Sokolove J, Deleuran B. The interleukin-20 receptor axis in early rheumatoid arthritis: novel links between disease-associated autoantibodies and radiographic progression. *Arthritis Res Ther.* 2016 Mar 11;18:61. doi: 10.1186/s13075-016-0964-7. PMID: 26968800

151. Kim JH, Furrow E, Ritt MG, Utz PJ, **Robinson WH**, Yu L, Eckert A, Stuebner K, O'Brien TD, Steinman L, Modiano JF. Anti-Insulin Immune Responses Are Detectable in Dogs with Spontaneous Diabetes. *PLoS One*. 2016 Mar 31;11(3):e0152397. PMID: 27031512

152. Cambridge G, Leandro MJ, Lahey LJ, Fairhead T, **Robinson WH**, Sokolove J. B cell depletion with rituximab in patients with rheumatoid arthritis: Multiplex bead array reveals the kinetics of IgG and IgA antibodies to citrullinated antigens. *J. Autoimmun*. 2016 70:22-30. PMID: 27055777

153. Yu C, Burns JC, **Robinson WH**, Utz PJ, Ho PP, Steinman L, Frey AB. Identification of Candidate Tolerogenic CD8(+) T Cell Epitopes for Therapy of Type 1 Diabetes in the NOD Mouse Model. *J Diabetes Res*. 2016; Epub 2016 Mar 16, PMID: 27069933 Free

154. England BR, Sokolove J, **Robinson WH**, Thiele GM, Ganti AK, Sayles H, Michaud K, Caplan L, Davis LA, Cannon GW, Sauer B, Singh N, Blair Solow E, Reimold AM, Kerr GS, Schwab P, Baker JF, Mikuls TR. Associations of circulating cytokines and chemokines with cancer mortality in men with rheumatoid arthritis. *Arthritis Rheumatol*. 2016 Apr 25. doi: 10.1002/art.39735. [Epub ahead of print] PMID: 27111000

155. Kinslow JD, Blum LK, Deane KD, Demoruelle MK, Okamoto Y, Parish M, Kongpachith S, Lahey LJ, Norris JM, **Robinson WH**, Holers VM. IgA Plasmablasts are Elevated in Subjects At Risk for Future Rheumatoid Arthritis. *Arthritis Rheumatol*. 2016 Epub ahead of print. Jun 6. doi: 10.1002/art.39771. [Epub ahead of print] PMID: 27273876

156. Regules JA, Cicatelli SB, Bennett JW, Paolino KM, Twomey PS, Moon JE, Kathcart AK, Hauns KD, Komisar JL, Qabar AN, Davidson SA, Dutta S, Griffith ME, Magee CD, Wojnarski M, Livezey JR, Kress AT, Waterman PE, Jongert E, Wille-Reece U, Volkmuth W, Emerling D, **Robinson WH**, Lievens M, Morelle D, Lee CK, Yassin-Rajkumar B, Weltzin R, Cohen J, Paris RM, Waters NC, Birkett AJ, Kaslow DC, Ballou WR, Ockenhouse CF, Vekemans J. Fractional third and fourth dose of RTS,S/AS01 malaria candidate vaccine: a phase 2a controlled human malaria infection and immunogenicity study. *J Infect Dis*. 2016 Jun 13. pii: jiw237. [Epub ahead of print] PMID: 27296848

157. Aucott JN, Soloski MJ, Rebman AW, Crowder LA, Lahey LJ, Wagner CA, **Robinson WH**, Bechtold KT. CCL19 as a Chemokine Risk Factor for Post-Treatment Lyme Disease Syndrome: A Prospective Clinical Cohort Study. *Clin Vaccine Immunol*. 2016 Jun 29. pii: CVI.00071-16. [Epub ahead of print] PMID: 27358211

158. Sokolove J, Wagner CA, Lahey LJ, Sayles H, Duryee MJ, Reimold AM, Kerr G, **Robinson WH**, Cannon GW, Thiele GM, Mikuls TR. Increased inflammation and disease activity among current cigarette smokers with rheumatoid arthritis: a cross-sectional analysis of US veterans. *Rheumatology* (Oxford). 2016 Jul 31. pii: kew285. [Epub ahead of print] PMID: 27477806

159. **Robinson WH**, Lepus CM, Wang Q, Raghu H, Mao R, Lindstrom TM, Sokolove J. Low-grade inflammation as a key mediator of the pathogenesis of osteoarthritis. Nat Rev Rheumatol. 2016 12(10):580-92. PMID: 27539668

160. Geraldino-Pardilla L, Giles JT, Sokolove J, Zartoshti A, **Robinson WH**, Budoff M, Detrano R, Bokhari S, Bathon JM. Association of Anti-Citrullinated Peptide Antibodies with Coronary Artery Calcification in Rheumatoid Arthritis. Arthritis Care Res (Hoboken). 2016 Oct 1. doi: 10.1002/acr.23106. [Epub ahead of print] PMID: 27696777

161. Tajerian M, Hung V, Khan H, Lahey LJ, Sun Y, Birklein F, Krämer HH, **Robinson WH**, Kingery WS, Clark JD. Identification of KRT16 as a target of an autoantibody response in complex regional pain syndrome. Exp Neurol. 2017 Jan;287(Pt 1):14-20. doi: 0.1016/j.expneurol.2016.10.011. PMID: 27773721

161. Abrams GD, Luria A, Sampson J, Madding RA, **Robinson WH**, Safran MR, Sokolove J. Decreased Synovial Inflammation in Atraumatic Hip Microinstability Compared With Femoroacetabular Impingement. Arthroscopy. 2016 Dec 8. pii: S0749-8063(16)30709-5. doi: 10.1016/j.arthro.2016.09.007. [Epub ahead of print] PMID: 27939067

162. Tedeschi SK, Cui J, Arkema EV, **Robinson WH**, Sokolove J, Lingampalli N, Sparks JA, Karlson EW, Costenbader KH. Elevated BMI and antibodies to citrullinated proteins interact to increase rheumatoid arthritis risk and shorten time to diagnosis: A nested case-control study of women in the Nurses' Health Studies. Semin Arthritis Rheum. 2016 Sep 13. pii: S0049-0172(16)30268-2. doi: 10.1016/j.semarthrit.2016.09.001. [Epub ahead of print] PMID: 27939764

163. Raghu H, Lepus CM, Wang Q, Wong HH, Lingampalli N, Oliviero F, Punzi L, Giori NJ, Goodman SB, Chu CR, Sokolove JB, **Robinson WH**. CCL2/CCR2, but not CCL5/CCR5, mediates monocyte recruitment, inflammation and cartilage destruction in osteoarthritis. Ann Rheum Dis. 2016 Dec 13. pii: annrheumdis-2016-210426. doi: 10.1136/annrheumdis-2016-210426. [Epub ahead of print] PMID: 27965260

164. Geraldino-Pardilla L, Giles JT, Sokolove J, Zartoshti A, **Robinson WH**, Budoff M, Detrano R, Bokhari S, Bathon JM. Association of Anti-Citrullinated Peptide Antibodies with Coronary Artery Calcification in Rheumatoid Arthritis. Arthritis Care Res (Hoboken). 2016 Oct 1. doi: 10.1002/acr.23106. [Epub ahead of print] PMID: 27696777

165. Geraldino-Pardilla L, Russo C, Sokolove J, **Robinson WH**, Zartoshti A, Van Eyk J, Fert-Bober J, Lima J, Giles JT, Bathon JM. Association of anti-citrullinated protein or peptide antibodies with left ventricular structure and function in rheumatoid arthritis. Rheumatology (Oxford). 2016 Dec 19. pii: kew436. [Epub ahead of print] PMID: 27994093

166. Lee J, Luria A, Rhodes C, Raghu H, Lingampalli N, Sharpe O, Rada B, Sohn DH, **Robinson WH**, Sokolove J. Nicotine drives neutrophil extracellular traps formation and accelerates collagen-induced arthritis. Rheumatology (Oxford). 2016 Dec 24. pii: kew449. doi: 10.1093/rheumatology/kew449. [Epub ahead of print] PMID: 28013195

167. Willis VC, Banda NK, Cordova KN, Chandra PE, **Robinson WH**, Cooper DC, Lugo D, Mehta G, Taylor S, Tak PP, Prinjha RK, Lewis HD, Holers VM. Protein arginine deiminase 4 inhibition is sufficient for the amelioration of collagen-induced arthritis. Clin Exp Immunol. 2017 Jan 27. doi: 10.1111/cei.12932. [Epub ahead of print] PMID: 28128853

2. <u>Books:</u>

Ph.D. Thesis: "Polymorphism and expression of the mouse B cell surface protein CD72 and molecular cloning of a potential ligand." Stanford University. Advisor: Jane R. Parnes, M.D.

3. <u>Book Chapters (4 total):</u>

1. **Robinson WH**, Tutt-Landolfi MM, and Parnes JR. CD72 Workshop Panel Report. In S.F. Schlossman et al. (eds.): Leukocyte Typing V: White Cell Differentiation Antigens. Oxford University Press, Oxford, p. 559-562, 1995.

2. Genovese MC, and **Robinson WH**. Emerging Therapies in Rheumatoid Arthritis. In L. Moreland (ed.) Rheumatoid Arthritis: State of the Art. Remidica, Ltd. London. ReMEDICA Publishing, London, p. 97-114, 2001.
3. Genovese MC, and **Robinson WH**. Modern Therapies for Rheumatoid Arthritis. In G. Tsokos et al. (eds.) Modern Therapeutics for Rheumatoid Diseases. The Humana Press, Inc. Totowa, New Jersey, 2001.
4. Utz PJ, Steinman L, **Robinson WH**. Protein microarrays for analysis of antibody responses in animals and humans. In M. Schena et al. (eds.) Protein Microarrays, Chap. 19, p. 365-376. Jones and Bartlett Publishers, Sudbury, MA. 2004.
5. Lindstrom TM, and **Robinson WH**. A multitude of kinases—Which are the best targets in treating rheumatoid arthritis? *Rheumatic Disease Clinics of North America*, 2010.
6. Boyle D, and **Robinson WH.** Molecular Biomarkers. *Kelly's Textbook of Rheumatology, 10th Edition.* In press.

5. <u>Book reviews:</u> (none)

6. <u>Abstracts:</u>

2001 "Antigen Microarray Characterization of Autoantibody Responses in Systemic Lupus Erythematosus", American College of Rheumatology, Philadelphia, PA

2001 "Protein Array Analysis of Autoantibody Responses in Autoimmune Encephalomyelitis", Federation of Clinical Immunology Societies, Boston, MA

2001 "Autoantigen Microarray Characterization of Autoantibody Responses", NIH/Arthritis Foundation, Arthritis Research Conference, San Diego, CA

2002 "Myelin Proteome Array Analysis of Autoantibody Responses in an Animal Model of Multiple Sclerosis", Federation of Clinical Immunology Societies, San Francisco, CA

2002 "Synovial Proteome Microarray Characterization of Autoantibody Responses in Rheumatoid Arthritis", American College of Rheumatology, New Orleans, Louisiana

2003 "Synovial Proteome Microarrays Identify Deiminated Proteins as Targets of the Autoantibody Response in Rheumatoid Arthritis", Federation of Clinical Immunology Societies, Paris, France

2003 "Synovial Proteome Arrays Reveal Deiminated Polypeptides as Targets of the Autoimmune Response in Rheumatoid Arthritis", Keystone, CO

2005 "Proteomic analysis of secreted proteins defines subtypes of rheumatoid arthritis", Federation of Clinical Immunology Societies, Boston, MA

2005 "Development of Mass Spectrometry and Protein Array Technologies to Identify Biosignatures in Rheumatoid Arthritis", Arthritis Research Conference, Stone Mountain, GA

2005 "Fibrinogen-Induced Arthritis in Mice as a Novel Model for Rheumatoid Arthritis", American College of Rheumatology, San Diego, CA

2006 "Fibrinogen-induced arthritis in mice as a novel model for rheumatoid arthritis", Federation of Clinical Immunology Societies, San Francisco, CA

2006 "Selective tyrosine kinase inhibition by imatinib mesylate for the treatment of experimental arthritis", American College of Rheumatology, Washington, DC

7. Invited presentations:

2001 Invited Speaker, "Antigen Arrays for Multiplexed Characterization of Autoantibody Responses", European Proteomics Conference, Berlin, Germany

2001 Invited Speaker, "Antigen Microarrays", Van Andel Research Institute, Grand Rapids, MI

2001 Invited Speaker, "Protein Microarray Characterization of Autoantibody Responses in Rheumatoid Arthritis", European Rheumatology Workshop, Lieden, The Netherlands

2002 Invited Speaker, "Reverse Genomics: Antigen Microarrays Guide Development of Genetic Tolerizing Vaccines for Autoimmune Disease", Northwestern University, Chicago, IL

2002 Invited Speaker, "A Proteomic Approach to Monitoring Autoimmune Rheumatic Disease", Chicago Association of Immunologists, Chicago, IL

2002 Invited Speaker, "Antigen Microarray Characterization of the Autoantibody Response in Multiple Sclerosis", MS Forum, Whistler, Canada

2002 Invited Speaker, "Reverse Genomics: Protein Microarrays Guide Development of DNA Tolerizing Vaccines to Treat Autoimmune Encephalomyelitis", Massachusetts General Hospital, Boston, MA

2002 Invited Speaker, "Reverse Genomics: Protein Arrays Guide DNA Vaccine Treatment of Autoimmune Disease", University of Colorado Health Sciences, Denver, CO

2002 Invited Speaker, "Antigen Microarrays", American Society of Histocompatibility and Immunogenetics, Nashville, TN

2002 Invited Speaker, "A Proteomic Approach to Monitoring Autoimmune Disease", Genomics on Target: High-Throughput Target Validation, Boston, MA

2003 Invited Speaker, "Reverse Genomics", PEP Talk: Protein Arrays, Protein Informatics and Protein Expression Conference, San Diego, CA

2003 Invited Speaker, "Prediction of Therapeutic Success in EAE Models with a Novel Protein Chip", Federation of Clinical Immunology Societies, Paris, France

2003 Invited Speaker, "A Proteomic Approach to Autoimmune Disease", Grand Rounds, Department of Medicine, Stanford University School of Medicine, Stanford, CA

2003 Plenary Session Presentation (presented by postdoctoral fellow, Wolfgang Hueber, MD), "Synovial Proteome Microarrays Identify Deiminated Proteins as Targets of the Autoantibody Response in Rheumatoid Arthritis", American College of Rheumatology, Orlando, FL

2004 Invited Speaker, "A Proteomic Approach to Autoimmune Disease", FASEB ABRF 'Integrating technologies in genomics and proteomics' conference, Portland, OR

2004 Invited Discussion Leader and Workshop Chair, "Protein Microarrays", FASEB ABRF 'Integrating technologies in genomics and proteomics' conference, Portland, OR

2004 Invited Speaker, "A Proteomic Approach to Autoimmune Disease", Grand Rounds, Department of Laboratory Medicine, University of California, San Francisco, San Francisco, CA

2004 Invited Speaker, "A Proteomic Approach to Multiple Sclerosis", Inflammation Research Association West Coast Symposia, Salk Institute, La Jolla, CA

2004 Invited Speaker, "Proteomic Analysis of Rheumatoid Arthritis", Grand Rounds, University of Arizona, Tucson, AZ

2004 Invited Speaker, “Microarray Profiling of Anti-SHIV Responses”, American Society of Microbiology, Portland, OR

2004 Invited Speaker, “Microarray Profiles of Autoantibody in Multiple Sclerosis”, 20th Congress of the European Committee for Treatment and Research in Multiple Sclerosis (ECTRIMS), Vienna, Austria, 2004

2005 Invited Speaker, “Rheumatoid Arthritis”, Grand Rounds, John Muir Medical Center, Walnut Creek, CA

2005 Invited Speaker, “Emerging Proteomics Technologies and Their Potential to Replace Existing Methods”, NIH NHLBI Proteomics Meeting, Bethesda, MD

2005 Invited Speaker, “Proteomic Analysis of Secreted Proteins Defines Subtypes of Rheumatoid Arthritis”, Federation of Clinical Immunology Societies, Boston, MA

2005 Invited Speaker, “Autoantibody detection in the "proteomic age"”, European League against Rheumatism (EULAR), Vienna, Austria

2005 Invited Speaker, “Development of mass spectrometry and protein array technologies to identify biosignatures in rheumatoid arthritis”, Arthritis Research Conference, Atlanta, GA

2005 Invited Speaker, “Protein Array Analysis of Rheumatoid Arthritis Identifies Molecular Subtypes of Disease”, Autoimmune Biomarkers Collaborative Network (ABCoN), Long Island,NY

2005 Invited Speaker, “Proteomic Analysis Reveals Molecular Subtypes of Rheumatoid Arthritis”, Stanford Immunology Program Seminar Series, Stanford, CA

2005 Invited Speaker, “Proteomic Analysis of Rheumatoid Arthritis”, Stanford Department of Microbiology and Immunology Seminar Series, Stanford, CA

2005 Invited Speaker, “Proteomic Analysis of Autoimmune Disease”, Stanford Digestive Disease Seminar Series, Stanford, CA

2005 “Proteomics”, Center for Clinical Immunology at Stanford (CCIS) Noon Seminar Series

2006 Invited Speaker, “Proteomic Analysis Reveals Molecular Subtypes of Rheumatoid Arthritis”, San Diego, CA

2006 Invited Speaker, “Lipid Microarrays Identify Autoantigens and Immune Modulators in Autoimmune Demyelinating Disease”, 3rd International Symposium of the Austrian Proteomics Platform, Seefeld, Austria

2006 Invited Speaker, “Proteomic and Lipidomic Analysis of Multiple Sclerosis”, Department of Neurology Grand Rounds, University of California, San Francisco, San Francisco, CA

2006 Invited Speaker, “Proteomic Analysis of Early Rheumatoid Arthritis”, 15th International Rheumatology Symposium, Japanese College of Rheumatology, Nagasaki, Japan

2006 Invited Speaker, “Proteomic Analysis of Rheumatoid Arthritis”, Trends and Molecular and Cellular Rheumatology Arthritis Research Symposium, McGill University, Montreal, Canada

2006 Special Lecture, “Lipid Microarrays Reveal Autoantigens and a New Class of Potential Therapeutics for Autoimmune Disease”, University of Pittsburgh, Pittsburgh, PA

2006 Symposium Organizer and Speaker, "Proteomic Characterization of Autoimmune Disease", Stanford Digestive Disease Center Symposium, Stanford, CA

2006 Speaker, "Fibrinogen-induced arthritis in mice as a novel model for rheumatoid arthritis", Federation of Clinical Immunology Societies (FOCIS), San Francisco, CA

2006 Invited Speaker, "Lipid microarrays reveal autoantigens and a new class of potential therapeutics for autoimmune disease ", XVI Congress of the Italian Association of Neuroimmunology, Ostuni, Italy

2006 Invited Speaker, "Proteomic and lipidomic characterization of autoimmune demyelinating disease", Montreal Microarray Symposium, Montreal, Canada

2006 Invited Speaker, "Imatinib for the Treatment of Autoimmune Disease", Kaiser Rheumatology Lecture Series, Oakland, CA

2006 Invited Speaker, "Proteomic Analysis of Rheumatoid Arthritis and Osteoarthritis", Department of Orthopedics Seminar Series, Stanford University

2006 Invited Speaker, "Imatinib for the Treatment of Autoimmune Arthritis", Women's Health lecture series, Stanford University

2006 Invited Speaker, "Antigen Arrays for Antibody Profiling", Antibody Engineering Conference, San Diego, CA

2007 Invited Speaker, "Proteomic Analysis of Rheumatoid Arthritis", Rheumatology Grand Rounds, Emory University, Atlanta, GA

2007 Speaker, "Tyrosine Kinase Pathways in Rheumatoid Arthritis", GRECC Seminar Series, VA Palo Alto Health Care System

2007 Invited Speaker, "Protein and Lipid Microarray Analysis of Multiple Sclerosis", Microbiology and Immunology Seminar Series, Michigan State University, East Lansing, MI

2007 Invited Speaker, "Proteomic and lipidomic approaches to autoimmune disease", British Society of Immunology, Glasgow, Scotland

2007 Invited Speaker, "Tolerizing DNA vaccines for autoimmune disease: From bench to bedside", SAPA-West, San Mateo, CA

2007 Invited Speaker, "Kinase inhibitors for the treatment of autoimmune rheumatic diseases", Arthritis Foundation, Southern California Chapter, Los Angeles, CA

2007 Invited Speaker, "Tyrosine kinase pathways in rheumatoid arthritis", Brigham and Women's Hospital and Massachusetts General Hospital Rheumatology Grand Rounds, Boston, MA

2007 Invited Speaker, "Tyrosine kinases in rheumatoid arthritis", NHLBI Proteomics Meeting, Boston University, Boston, MA

2007 Invited Speaker, "New Approaches to the Diagnosis and Treatment of Rheumatoid Arthritis", Cedars-Sinai Medical Center, Los Angeles, CA

2008 Invited Speaker, "Tyrosine kinase pathways in rheumatoid arthritis", University of Alabama, Birmingham, Birmingham, AL

2008 Invited Speaker, "Translating Discoveries", Stanford University, Stanford, CA

2008 Invited Speaker, "New Diagnostic and Therapeutic Strategies for Rheumatoid Arthritis", Mayo Clinic, Rochester, MN

2008 Invited Speaker, "Rheumatoid Arthritis", VA GRECC Conference, VA Palo Alto, Palo Alto, CA

2008 Invited Speaker, "B cell Mediated Autoimmune Diseases", Stanford University, Stanford, CA

2008 Invited Speaker, "Rheumatoid Arthritis", Skyline College, San Bruno, CA

2008 Invited Speaker, "Proteomic Biomarkers for Early Diagnosis and Guiding Therapy in Rheumatoid Arthritis", University of Pennsylvania, Pennsylvania, PA

2008 Invited Speaker, "Tyrosine Kinase Pathways in Rheumatoid Arthritis", Northern California Arthritis Foundation Chapter Meeting, San Francisco, CA

2008 Invited Speaker, "Imatinib for the Treatment of Rheumatoid Arthritis and Systemic Sclerosis", Drug Repositioning Summit, Boston, MA

2008 Invited Speaker, "Actionable Biomarkers for Rheumatoid Arthritis", Genentech, South San Francisco, CA

2008 Invited Speaker, "Anti-Myelin Antibodies in Multiple Sclerosis and Acute Disseminated Encephalomyelitis", Central and South-East European Consortium of MS Centers, Novi Sad, Serbia

2008 Invited Speaker, "Actionable Biomarkers for Rheumatoid Arthritis", Biogen-IDEC, Cambridge, MA

2009 Invited Speaker and Session Chair, "Protein Array Identification of Actionable Biomarkers in Rheumatoid Arthritis", PepTalk, San Diego, CA

2009 Invited Speaker, "Actionable Biomarkers in Rheumatoid Arthritis and Multiple Sclerosis", NHLBI Proteomics Centers' Investigators' Meeting, University of Texas, Southwestern, Dallas, TX

2009 Invited Speaker, "Tyrosine Kinases in Rheumatoid Arthritis and Systemic Sclerosis", Korean Rheumatism Association Annual Meeting, Seoul, South Korea

2009 Invited Speaker, "Actionable Biomarkers in Rheumatoid Arthritis", Yonsei University Medical Center, Seoul, South Korea

2009 Invited Speaker, "Carboxypeptidase B as a Central Down-Regulator of Inflammatory Responses in Rheumatoid Arthritis", American College of Rheumatology Investigators' Meeting, San Diego, CA

2009 Invited Speaker, "Clinically Actionable Biomarkers for Rheumatoid Arthritis", World Microarray Conference, San Francisco, CA

2009 Invited Speaker, "Myelin Lipids as Autoantigens and Protective Mediators in Autoimmune Demyelination", Gordon Conference on the Molecular and Cellular Biology of Lipids, Waterville Valley, NH

2009 Invited Speaker, "Tyrosine Kinase Inhibitors for the Treatment of Autoimmune Disease", TrialNet Investigators Meeting, Rodondo Beach, CA

2009 Invited Speaker, "Tyrosine Kinase Pathways in Rheumatoid Arthritis and Systemic Sclerosis", Inflammatory Research Symposium, San Diego, CA

2010 Invited Speaker, "Tyrosine Kinases in Inflammatory Disease", Cardiopulmonary Research Conference, Stanford University, Stanford, CA

2010 Invited Speaker, "Targeting Signal Transduction: Promise and Problems", American Academy of Allergy, Asthma & Immunology (AAAAI), New Orleans, LA

2010 Invited Speaker, "Rheumatoid Arthritis – Biomarkers for Drug Response Prediction", Grainau, Germany

2010 Invited Speaker, “Inflammatory Mechanisms in Rheumatoid Arthritis and Osteoarthritis”, University of California, San Francisco (UCSF), San Francisco, CA

2010 Invited Speaker, “Actionable Diagnostics for Rheumatoid Arthritis”, University of Colorado, Denver, CO

2010 Invited Speaker, “Carboxypeptidase B is a Critical Downregulator of Inflammatory Responses in Rheumatoid Arthritis”, American College of Rheumatology Investigators Meeting, Fort Worth, TX

2010 Invited Speaker, “Targeting Inflammation in Osteoarthritis”, Grand Rounds, University of Alabama, Birmingham (UAB), Birmingham, AL

2010 Visiting Professor, “Tyrosine Kinases in Rheumatoid Arthritis and Systemic Sclerosis”, Annual Retreat, Division of Immunology, University of Alabama, Birmingham (UAB), Birmingham, AL

2010 Invited Speaker, “Autoantibodies and B Cells in Rheumatoid Arthritis”, Knapp Symposium, University of Chicago, Chicago, IL

2010 Invited Speaker, “Actionable Proteomic Biomarkers in Rheumatoid Arthritis”, World Micoarray Conference, San Diego, CA

2010 Speaker, “Complement Component C5 Play a Critical Role in Osteoarthritis”, American College of Rheumatology, Atlanta, GA

2010 Invited Speaker, “Citrullinated Antigens Co-Stimulate Inflammatory Responses”, Juvenile Diabetes Research Foundation, New York City, NY

2011 Invited Speaker, “Tyrosine Kinases in the Pathogenesis of Rheumatoid Arthritis”, Novartis, Basel, Switzerland

2011 Carl Pearson Memorial Lectureship, “Targeting Inflammation in Osteoarthritis”, UCLA Rheumatology Retreat, Los Angeles, CA

2011 Invited Speaker, “Inflammatory Mechanisms in Osteoarthritis”, Grand Rounds, University of Pittsburgh, Pittsburgh, PA

2011 Invited Speaker, “Carboxypeptidase B Downregulates Inflammatory Responses in Rheumatoid Arthritis”, Within-Our-Reach Investigators Meeting, Miami, FL

2011 Invited Speaker, “Development of Actionable Biomarkers”, Stanford BioDesign Conference, Stanford, CA

2011 Invited Speaker, “Characterizing Antibody Repertoires”, NHLBI Proteomics Centers Meeting, Boston, MA

2011 Kroc Lecture, “Target Inflammation in Osteoarthritis”, University of Texas Southwestern, Dallas, TX

2011 Invited Speaker, “Actionable Biomarkers for Rheumatoid Arthritis”, UCSF Nanotechnology Symposium, San Francisco, CA

2011 Invited Speaker, “Large-Scale Sequencing of Immunoglobulin Repertoires in Rheumatoid Arthritis”, American College of Rheumatology, Chicago, IL

2011 Invited Speaker, “Identification of Citrullinated Fibrinogen as a Pathogenic Antigen in Rheumatoid Arthritis”, BRIC Rheumatology Symposium, Tokyo, Japan

2012 Invited Speaker, “Large-Scale Sequencing of Immunoglobulin Repertoires in RA”, Keystone Symposium, Santa Fe, New Mexico

2012 Invited Speaker, “Reverse Immunomics”, Novartis Vaccines and Diagnostics, Siena, Italy

2012 Invited Presenter, “Large-Scale Sequencing of Immunoglobulin Repertoires”, Gates Foundation, Seattle, WA

2012 Invited Presenter, “Large-Scale Sequencing of Immunoglobulin Repertoires”, Gilead, Foster City, CA

2012 Invited Speaker, "Targeting Inflammation in Osteoarthritis", Rheumatology Grand Rounds, Cedars-Sinai Medical Center, Los Angeles, CA

2012 Invited Speaker, "Launching Your Academic Career", American College of Rheumatology Workshop, Denver, CO

2012 Invited Speaker, "Inflammatory Mechanisms in Osteoarthritis", National Institutes of Health, NIAMS Annual Retreat, Bethesda, MD\

2012 Invited Speaker, "Predictive Biomarkers for Rheumatoid Arthritis", European League Against Rheumatism (EULAR) Annual Meeting, Berlin, Germany

2012 Invited Speaker, "The Role of the Complement System in Osteoarthritis", University of Padua, Padua, Italy

2012 Invited Speaker, "Large-Scale Characterization of Antibody Responses in Pulmonary Arterial Hypertension", NIH NHLBI Proteomics Centers Meeting, Bethesda, MD

2012 Invited Speaker, "Large-Scale Characterization of Antibody Responses", From the Laboratory to the Clinic: Towards New Treatment of Chronic and Acute Inflammatory Diseases, Trinity College, Oxford, UK

2012 Organizer and Speaker, "Large-Scale Characterization of Antibody Responses", Stanford Immunology Annual Retreat, Asilomar, CA

2012 Invited Speaker, "Biomarkers for Identifying Preclinical RA", Rheumatoid Arthritis in First Nations: Defining the road toward disease prevention, University of Winnipeg, Winnipeg, Canada

2012 Invited Speaker, "Large-Scale Characterization of Antibody Responses for Vaccine R&D", Grant Challenges Meeting, Ottawa, Canada

2012 Invited Speaker, "Sequencing and Functional Characterization of Antibody Repertoires", National Jewish Health, Denver, CO

2012 Invited Speaker, "Functional Characterization of Antibody Repertoires", North Shore Health Care System and the Feinstein Institute, Long Island, NY

2013 Invited Speaker, "Sequencing Antibody Repertoires", NIAID, NIH, Bethesda, MD

2013 Invited speaker, "Anti-Lipid Autoimmunity in Multiple Sclerosis", Keystone Meeting, Big Sky, Montana

2013 Invited speaker, "The Critical Role of the Complement System in Osteoarthritis", American College of Rheumatology Annual Meeting, Washington DC

2013 Invited speaker, "Sequencing Functional Antibody Repertoires", Research Seminar Series, Oklahoma Medical Research Foundation, Oklahoma City, OK

2013 Invited speaker, "Sequencing Functional Antibody Repertoires", Skippy Frank Symposium, Stanford, CA

2013 Invited speaker, "Sequencing Functional Antibody Repertoires", Rheumatology Grand Rounds, UCSD (University of California, San Diego), San Diego, CA

2013 Invited speaker, "Characterizing Antibody Repertoires in Pulmonary Arterial Hypertension", NHLBI Semi-Annual Report, Stanford, CA

2013 Invited speaker, "Sequencing Functional Antibody Repertoires", Immunology Seminar, Scripps Research Institute, San Diego, CA

2013 Invited speaker, "The Critical Role of the Complement System in Osteoarthritis", OARSI (Osteoarthritis Research Society International) Annual Meeting, Philadelphia, PA

2013 Invited speaker, "Sequencing Functional Antibody Repertoires", Rheumatology Research Workshop, American College of Rheumatology, Dallas, TX

2013 Invited speaker, "Characterizing Antibody Repertoires in Pulmonary Arterial Hypertension, NHLBI, Bethesda, MD

2013 Invited speaker, “Characterizing functional antibody repertoires”, Blood Systems Research Institute (BSRI) Annual Retreat, San Francisco, CA

2013 Invited speaker, “Sequencing Antibody Responses in Vaccination and Infection”, Grand Challenges Meeting, Rio de Janeiro, Brazil

2013 Invited speaker, “Characterizing Autoantibody Responses in Neuromyelitis Optica”, Guthy Jackson Foundation Annual Meeting, Los Angeles, CA

2013 Invited speaker, “Sequencing Functional Antibody Repertoires”, Antibody Engineering and Therapeutics, Huntington Beach, CA

2014 Invited speaker, “Sequencing Antibody Responses to Decipher Pathogenic Mechanisms in Rheumatoid Arthritis”, Novo Nordisk-Stanford Symposium, Stanford, CA

2014 Invited speaker, “Sequencing Antibody Responses in Vaccination and Infection”, Dengue Summit, Gates Foundation, Seattle, WA

2014 Invited speaker, “Sequencing Antibody Repertoires in Rheumatoid Arthritis”, Grand Rounds, Oregon Health Sciences University, Portland, OR

2014 Invited speaker, “Sequencing Antibody Repertoires in Infection and Vaccination”, HIV Keystone Symposium, Banff Springs, Canada

2014 Invited speaker, “Low-Grade Inflammation in Osteoarthritis”, Medicine Grand Rounds, New York University, New York City, NY

2014 Invited speaker, “Biorepository Development”, TBDA and BALF Biorepository Summit, New York City, NY

2014 Invited speaker, “Sequencing functional antibody repertoires”, Inflammatory Biomarkers Summit, San Diego, CA

2014 Invited speaker, “Tolerizing vaccines for type I diabetes”, Type 1 Diabetes Trial Net Investigators Meeting, Washington DC

2014 Invited speaker, “Neutrophil NETosis in RA” Peptidyl Arginine Deiminase Summit, Washington DC

2014 Invited speaker, “Sequencing antibody repertoires in rheumatoid arthritis”, FOCIS Annual Meeting, Chicago, IL

2014 Invited speaker, “Antibody repertoire sequencing to decipher pathogenic mechanisms in RA”, FOCIS Annual Meeting, Chicago, IL

2014 Invited speaker, “Sequencing antibody repertoires in pulmonary arterial hypertension”, NIH NHLBI Proteomics Centers Investigators Meeting, Bethesda, MD

2014 Invited speaker, “Lessons learned from Immune Biomarker efforts in RA”, Juvenile Diabetes Research Foundation (JDRF) Satellite Symposium, FOCIS Annual Meeting, Chicago, IL

2014 Invited speaker, “Sequencing Antibody Repertoires to Decipher Pathogenic Mechanisms in RA”, UCSF Immunology Seminar, San Francisco, CA

2014 Invited speaker, “Stanford Technology Center Overview”, NIH AMP Investigators Meeting, Bethesda, MD

2014 Invited speaker, “Multiplex assays for the diagnosis of *B. burgdorferi* infection”, Lyme Borreliosis and Tick Borne Illnesses Symposium, Massachusetts General Hospital, Boston, MA

2014 Invited speaker, “Proteomics – Composite Molecular Profiles”, American College of Rheumatology Annual Meeting, Boston, MA

2015 Invited speaker, “Targeting Inflammation in Osteoarthritis”, Winter Rheumatology Symposium, Snowmass, CO

2015 Invited speaker, “Sequencing Antibody Repertoires in RA”, Winter Rheumatology Symposium, Snowmass, CO

2015 Invited speaker, “Pathogenic Autoantigens in Rheumatoid Arthritis”, Research Collaborative Initiative, Princeton, NJ

2015 Invited speaker, “Sequencing Antibody Repertoires in RA and SLE”, New York University

2015 Invited speaker, "Sequencing Antibody Repertoires to Decipher Pathogenic Mechanisms in Autoimmune Disease", UCSF Neuroimmunology Seminar, San Francisco, CA

2015 Invited speaker, "Development of a Toll-Like Receptor Inhibitor for the Treatment of NASH", Stanford SPARK Program, Stanford, CA

2015 Invited speaker, "Sequencing Antibody Repertoires in RA and SLE", NIH Autoimmunity Centers of Excellence (ACE) Investigators Meeting, Rockville, MD

2015 Invited Speaker, "Sequencing Antibody Repertoires in Autoimmune Disease", Scripps Florida, Jupiter, Florida

2015 Invited speaker, "Sequencing Antibody and TCR Repertoires in RA and SLE", NIH Accelerating Medicines Partnerships Investigator Meeting, Denver, CO

2015 Invited speaker, "Inflammatory Mechanisms in the Pathogenesis of Osteoarthritis", Stanford Rheumatology Conference, Stanford, CA

2015 Invited speaker, "Sequencing Antibody Repertoires in Pulmonary Arterial Hypertension", NHLBI Proteomics Centers Meeting, Rockville, MD

2015 Invited speaker, "Sequencing Antibody Repertoires to Decipher Pathogenic Mechanisms in Rheumatoid Arthritis", New York University Medicine Research Day, NYC, NY

2015 Invited speaker, "Sequencing Functional Antibody Repertoires in Cancer", Immunogenomics Conference, Hudson Alpha, Huntsville, AL

2016 Invited speaker, "Sequencing Antibody Repertoires to Decipher Pathogenic Mechanisms in RA", European League Against Rheumatism (EULAR) 36th European Workshop for Rheumatology Research, York, UK

2016 Invited Speaker, "Targeting Inflammation in Osteoarthritis (Part I)", Stanford Rheumatology Noon Conference, Stanford, CA

2016 Invited Speaker, "Sequencing Antibody Repertoires to Decipher Pathogenic Mechanisms in Pulmonary Arterial Hypertension", Stanford Wall Center, Stanford, CA

2016 Invited Speaker, "Sequencing Antibody Repertoires in Rheumatoid Arthritis", Personalized Medicine World Conference, San Jose, CA

2016 Invited Speaker, "Next-Generation Diagnostics for Lyme Disease", Johns Hopkins, Baltimore, MD

2016 Invited Speaker, "Innate Immunity in Osteoarthritis (Part II)", Stanford Rheumatology Noon Conference, Stanford, CA

2016 Invited Speaker, "Targeting Inflammation in Osteoarthritis", GRECC Virtual Conference, VA Palo Alto, Palo Alto, CA

2016 Invited Speaker, "Sequencing Functional Immune Repertoires to Decipher Novel Immune Diseases", Stanford Undiagnosed Disease Network, Stanford, CA

2016 Invited Speaker, "Sequencing Antibody Repertoires in Rheumatoid Arthritis", NIH Autoimmunity Centers of Excellence (ACE) Investigators Meeting, Rockville, MD

2016 Invited Speaker, "Next-Generation Diagnostics for Lyme Disease", Lyme and Tick Borne Infections, Massachusetts General Hospital (MGH), Boston, MA

2016 Plenary Speaker, "Sequencing Antibody Repertoires in Rheumatoid Arthritis", Korean College of Rheumatology Annual Meeting, Seoul, South Korea

2016 Invited Speaker, "Sequencing Antibody and T cell Repertoires to Accelerate Vaccine Development", New Approaches to vaccines for Human and Veterinary Tropical Diseaeses, Keystone Conference, Cape Town, South Africa

2017 Plenary Speaker, "Sequencing B and T cell Repertoires in Rheumatoid Arthritis", Pathology Update 2017, Royal College of Pathologists of Australasia, Sydney, Australia

2017 Invited Speaker, "Sequencing immune repertoires in cancer non-progressors", Pathology Update 2017, Royal College of Pathologists of Australasia, Sydney, Australia

2017 Invited Speaker, "Actionable Biomarkers for Rheumatoid Arthritis", Pathology Update 2017, Royal College of Pathologists of Australasia, Sydney, Australia

2017 Invited Speaker, "Sequencing Immune Repertoires in Rheumatoid Arthritis", University of Adelaide, Adelaide, Australia

2017 Invited Discussant (with Dr. John Stone, Harvard and MGH), "IgG4-RD Advances: A Revolution in the Making", Churchill Club, Mountain View, CA

8. Patents:

10/120578 Therapeutic and Diagnostic Uses of Multiplex Antibody Specificity Determination. U.S. Patent Application (priority date 4.10.01)

10/302098 Polynucleotide Therapy. U.S. Patent Application (priority date 11.21.01)

11/491409 Multiplex determination of lipid specific binding moieties. U.S. Patent Application (priority date 7.21.05)

11/788232 Antibody profiling for determination of patient responsiveness. U.S. Patent Application (priority date 4.17.06)

11/766608 Differential diagnosis of ADEM from MS and neuroencephalitis using autoantibody profiling of serum. U.S. Patent Application (priority date 7.21.06)

11/809515 Method of treating an inflammatory diseases using a tyrosine kinase inhibitor. U.S. Patent Application (priority date 5.30.06)

12/001553 Alpha B-crystallin as a therapy for autoimmune demyelination. U.S. Patent Application (priority date 3.1.07)

12/214670 Identification of Actionable Biomarkers that Predict Clinical Disease Onset and Severity of Rheumatoid Arthritis. U.S. Patent Application (priority date 6.21.07)

12/482703 Complement Inhibitory Agents as Therapeutics in Posttraumatic and Degenerative Arthritis. U.S. Patent Application (priority date 6.12.08)

12/397925 Therapeutic Method to Inhibit Particle-Induced Inflammation and Osteolysis through the MyD88 Adaptor Protein Pathway. U.S. Patent Application (priority date 3.5.08)

61/147983 Gene signature for response to tyrosine kinase inhibitor in fibrotic disease. U.S. Patent Application (priority date 01.28.09)

61/274634 Fibrinogen Immune Complexes to Diagnose and Guide Therapy in Rheumatoid Arthritis, U.S. Patent Application (priority date 8/18/2009)

61/517976 Identification of polynucleotides associated with a sample. U.S. Patent Application (Priority date 4/28/11)

61/494763 Carboxypeptidase B as a Predictor for Disease Severity and Treatment Response for Inflammatory Disease. U.S. Patent Application (Priority date 6/8/11)

61/612805 Myelin Sheath Fatty Acids that Resolve Neuroinflammation. U.S. Patent Application (Priority date 3/19/12)

61/691582 and 61/792404. Treatment of Diseases Associated with Inflammation. U.S. Patent Application and PCT Application. (Priority date 8/21/12)

61/791320 Desethylhydroxchloroquine for the Treatment of Diseases Associated with Inflammation. U.S. Provisional Patent Application. (Priority date 3/15/13)

62/329,032 Tyrosine kinase inhibitor formulations for the treatment of mast cell-mediated inflammatory diseases and methods of use thereof. (Priority date 5/17/2016)