

FRANCES E. LUND

Curriculum Vitae

Current Business Address:

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Education:

1987 B.S., Microbiology, University of Notre Dame, Notre Dame, IN
1992 Ph.D., Microbiology and Immunology, Duke University, Durham, NC

Professional Experience:

09/87-04/92 Predoctoral Fellow with Dr. Ronald Corley, Duke University
04/92-11/92 Post-doctoral Fellow with Dr. Ronald Corley, Duke University
11/92-03/97 Post-doctoral Fellow with Dr. Maureen Howard, DNAX Research Institute
04/97-04/01 Assistant Member, Trudeau Institute
04/01-06/06 Associate Member, Trudeau Institute
06/06-06/08 Member, Trudeau Institute
05/98-06/08 Adjunct Assoc. Prof. of Microbiol. Immunol. and Mol. Genetics, Albany Med. College
07/02-06/08 Adjunct Associate Professor of Medicine, University of Vermont
01/98-06/08 Faculty Supervisor of Trudeau Institute Animal Facilities
06/08-present Professor, Dept. of Medicine, University of Rochester, Rochester NY
06/08-present Member, Center for Translational Immunology and Infectious Disease, U. of Rochester
06/08-present Adjunct Member, Trudeau Institute

Professional Societies:

1998-present Member of American Association of Immunologists
1998-present Member of American Association for the Advancement of Science

Fellowships:

1987-1990 NIH pre-doctoral training fellowship in Cell and Molecular Biology, Duke Univ.

Honors:

1987 Senior Scientist Award; Dept. of Biological Sciences/Microbiology, Univ. Notre Dame
1991 Norman Francis Conant Research award; Dept. of Micro. and Immunol. Duke University

Mentoring:

1998-2004 Santiago Partida-Sanchez Ph.D., Assistant Professor, Columbus Children's Research Institute Columbus OH
1999-2001 Lynn Fowler, Ph.D., Associate Professor, Clinton Community College, NY
2002-2005 David Harris, Ph.D., Staff Scientist, Lexicon, The Woodlands TX
2002 Miguel Moreno, CINVESTAV Ph.D. fellow, Post-doctoral Fellow, Univ. Washington
2002-2007 Laura Rivero, Ph.D., Curator La Jolla Institute of Immunology
2004-2007 Guxiu Shi, Ph.D., Research Assistant Professor, Univ. Texas El Paso
2006-present Wojciech Wojciechowski, Ph.D.

2006-present	Ravi Misra, Ph.D.
2008-present	Beatriz León Ruiz, Ph.D.
2007	Marta Viegas da Silva, visiting graduate student, University of Coimbra, Portugal
2007-2008	Esther Zumaquero Martinez, visiting graduate student, Univ. of Granada, Spain

Service and Committees:

1997-present	Animal Core Facility Committee, Faculty Advisor
1999-present	IACUC
2000-present	Graduate Student Committee
2007-present	Faculty Executive Committee
2002-2007	Executive Advisory Board Committee
2004-2007	AAI Education Committee

Editorial Boards:

2007-present	Associate Editor, The Journal of Immunology
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Ad hoc Reviewer:

Journal Experimental Medicine
Immunity
Blood
J. Immunology
FASEB J.
International Immunology
J. Clinical Investigation
Infection and Immunity
Analytical Biochemistry
Nature Medicine
Nature Immunology
PNAS
Gene
Structure
Biochemistry J.
J. Biol. Chemistry
Eur. J. Immunol.

Review Panels:

2000	The Isreal Science Foundation
2001	American Heart Association, Microbiology and Immunology Peer Review
2002	The Wellcome Trust
2002	BMRC-Singapore
2002	American Heart Association, Microbiology and Immunology Peer Review
2003	NIH-Shared Instrumentation Grant Program Review
2003	Canadian Institutes of Health Research
2004	Canadian Institutes of Health Research
2004	NIAID Ad hoc reviewer
2005	BMRC-Singapore
2007	The Wellcome Trust
2007	Arthritis Research Council

Meeting Organizer/Chair:

2000	Block Chair, “Adhesion molecules and Disease” AAI FASEB meeting
2001	Chair, FASEB Summer Conferences- Ectoenzymes: Structure and Function
2001	Block Chair, “13 th International Symposium on ADP-ribosylation, New York City, NY
2004	Session Chair, “Current Topics in Immunology” New York Immunology Conference, Bolton Landing, NY

- 2006 Organizer, "CD38 Ectoenzyme Family: Advances in Basic Science and Clinical practice", Torino Italy
- 2006 Organizer, "Rediscovering B cells: Antibody Dependent and Independent Roles in Immunity" Saranac Lake NY
- 2007 Organizer, "SmNACE workshop" Saranac Lake NY
- 2008 Organizer "Emerging Roles of NAD in cell signaling" Hamburg, Germany

Invited Lectures:

- 02/99 B cell Antigen receptors and coreceptors: Keystone Symposia- B lymphocytes in Health and Disease-workshop.
- 06/99 Does the ectoenzyme CD38 set signaling thresholds in immune responses? National Jewish Research Hospital, Denver CO
- 10/99 The ectoenzyme CD38 is required for humoral and innate immune responses. Corixa, Redwood City, CA
- 03/00 CD38: An ectoenzyme with unique immunoregulatory properties. Jackson Laboratory, Bar Harbor ME
- 10/00 CD38 controls capacitative calcium influx, chemotaxis and bacterial clearance in neutrophils through production of cADPR, Laboratoire d'Immunologie Cellulaire UMR CNRS 7627, Hopital Pitie-Salpetriere, Paris
- 06/01 Cyclic ADP-ribose production by CD38 controls extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance *in vivo*. 13th International Symposium on ADP-ribosylation, New York City, NY
- 07/01 Workshop, T-B cell collaboration: International Congress Immunology, Stockholm, Sweden.
- 10/01 Cyclic ADP-ribose production by CD38 controls extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance *in vivo*. Montana State University, Bozeman MT
- 10/01 Cyclic ADP-ribose production by CD38 controls extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance *in vivo*. University of Arizona, Arizona Cancer Center, Tucson AZ
- 11/01 Cyclic ADP-ribose production by CD38 controls recruitment of neutrophils to sites of inflammation and infection. Boehringer Ingelheim, Danbury CT
- 12/01 Cyclic ADP-ribose production by CD38 controls extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance *in vivo*. CINVESTAV, Mexico City, Mexico
- 12/01 Cyclic ADP-ribose production by CD38 controls extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance *in vivo*. National Polytechnic University, Mexico City, Mexico
- 03/02 CD38 is required for the Recruitment of Inflammatory Cells to the Lung. Genetics Institute, Wyeth Ayerst Respiratory Diseases, Boston MA
- 08/02 Cyclic ADP-ribose production by CD38 controls recruitment of neutrophils to sites of inflammation and infection. Natl. Cancer Institute, Frederick MD
- 10/02 CD38- an ectoenzyme that regulates innate and adaptive immune responses. Boston University, Boston MA
- 11/02 CD38- an ecto-enzyme that regulates innate and adaptive immune responses by controlling cell migration. ChemoCentryx, San Carlos CA
- 04/03 T cell priming and allergen-induced inflammatory responses are reduced in CD38 deficient mice due to defective dendritic cell migration. Keystone Symposium-Keystone CO; Hygiene, Allergy and Asthma Workshop
- 04/03 Regulation and roles for B cell-derived cytokines in immune responses. Meakins-Christie Laboratories, McGill University, Montreal Canada

- 04/03 Role for CD38, an ADP-ribosyl cyclase, in modulating immunity: Cyclic ADP-ribose regulates chemokine receptor signaling. Univ. Minnesota, Minneapolis MN
- 08/03 Regulation of inflammation and T cell-dependent immunity by the ecto-enzyme CD38. Wyeth-Ayerst, Cambridge MA
- 12/03 Regulation of inflammation and T cell-dependent immunity by the ecto-enzyme CD38. ChemoCentryx, San Carlos CA
- 11/04 Role of the ectoenzyme CD38 in regulating chemotaxis and adaptive immunity. New York Immunology Conference, Bolton Landing NY
- 11/04 Regulation of inflammation and T cell dependent immunity by the ecto-enzyme CD38. NIH Immunology Interest Group, Bethesda, MD
- 12/04 Regulation of inflammation and T cell dependent immunity by extracellular nucleotides and CD38. ChemoCentryx, Mountain View NY
- 02/05 Roles for extracellular nucleotides and CD38 in inflammation and immunity. Boehringer Ingelheim, Danbury, CT
- 03/05 Roles for extracellular nucleotides and CD38 in inflammation and immunity. Laboratory of Immunogenetics, University of Torino Medical School Torino Italy
- 04/05 Dendritic cell trafficking to secondary lymphoid tissues and inflammatory sites: Roles for extracellular nucleotides and CD38. American Association of Immunologists FASEB meeting, San Diego CA, Major Symposium speaker
- 09/05 B cells and cytokine production: Polarized patterns reflect different immune states. Boehringer Ingelheim, Danbury, CT
- 11/05 B cells produce cytokines with polarized patterns of expression. American College of Rheumatology Annual Meeting, San Diego CA, Major Symposium speaker
- 11/05 Role for extracellular enzymes in regulating inflammation and Immunity. California Institute of Technology, Pasadena, CA
- 12/05 Regulation of innate and adaptive immune responses by the ecto-enzyme CD38: Role for extracellular nucleotides in modulating immunity? Institute for Medical Research North Shore - LIJ Health System Manhasset, NY
- 01/06 Regulation of Cell Trafficking under Homeostatic and Inflammatory Conditions: Roles for CD38, cADPR and G α q. Keystone Symposium, Chemokines and Chemokine Receptors, Snowbird Utah, Major Symposium speaker
- 03/06 CD4 T Cell-Independent Antibody Response Promotes Resolution of Primary Influenza Infection and Helps to Prevent Reinfection. Keystone Symposium, Advances in Influenza Research: From Birds to Bench to Bedside, Steamboat CO, Major Symposium speaker
- 06/06 Regulation of innate and adaptive immune responses by the ecto-enzyme CD38: Role for extracellular nucleotides in modulating immunity? Univ. Connecticut, Farmington, CT.
- 06/06 The CD38 Ectoenzyme Family: Advances in Basic Science and Clinical Practice, Major Symposium speaker, Torino, Italy
- 08/06 Regulatory B cells: A role for cytokine-producing effector B cells in health and disease. Boehringer Ingelheim, Danbury CT
- 08/06 Regulation of innate and adaptive immune responses by the ecto-enzyme CD38: Role for extracellular nucleotides in modulating immunity? University of Alabama, Birmingham, AL
- 09/06 Regulation of inflammation and cell survival: Interrelated roles for the NAD metabolizing enzymes CD38 and PARP-1. CNRS, Strasbourg, France
- 09/06 Regulation of inflammation and cell survival: Interrelated roles for the NAD metabolizing enzymes CD38 and PARP-1. Univ. Hamburg, Germany

- 11/06 Regulatory B cells: A view beyond antibody production. Penn State Student Seminar Series, College Station, PA
- 02/07 Keystone Symposium, Biology of B cells in Health and Disease, Banff Alberta Canada, Major Symposium speaker
- 02/07 Regulation of innate and adaptive immune responses by the ecto-enzyme CD38: Role for extracellular nucleotides in modulating immunity? Erasmus University Medical Center, Rotterdam The Netherlands
- 02/07 Annual Congress of the British Society for Immunology, Glasgow Scotland, Major Symposium speaker “Regulatory B cells: A view beyond antibody production”
- 03/07 Regulatory B cells? A view beyond antibody production. Loyola University Medical Center, Chicago IL
- 03/07 2nd International Conference Harvard Skin Disease Research Center: Immunology and Skin Disease 2007: New Perspectives, Boston MA, Major Symposium speaker
- 04/07 Regulatory B cells? A view beyond antibody production. Boston University Medical Center, Boston MA
- 07/07 Regulatory B cells? A view beyond antibody production. Rochester University, Rochester NY
- 07/07 CD38 and NAD: Modulators of Immunity. National Jewish Medical and Research Center, Denver CO
- 08/07 Regulatory B cells? A view beyond antibody production. University of Georgia, Athens GA
- 10/07 Keynote Speaker, Oklahoma Medical Research Foundation Post-Doctoral Retreat, Ardmore OK
- 11/07 Regulatory B cells? A view beyond antibody production. Yale University, New Haven CT
- 11/07 Regulatory and effector B cells? Antibody independent roles in infection and autoimmunity. Univ. Pittsburgh, Pittsburgh PA
- 05/08 Cytokine producing B lymphocytes- key regulators of immunity. Univ. California- Davis, Davis California
- 05/08 17th International meeting on poly ADP-ribosylation. Tucson AZ, Plenary Speaker
- 09/08 Emerging roles of NAD in cell signaling Meeting. Hamburg Germany, Plenary speaker
- 01/09 Keystone Symposium, Allergy and Asthma, Keystone Colorado, Major Symposium Speaker
- 02/09 Keystone Symposium, B cells in Context, Taos New Mexico, Major Symposium Speaker

Issued Patents and Licensing:

- 10/05 US Patent No. 6,955,884: CD38 modulated chemotaxis; F.E. Lund, T.D. Randall and S. Partida-Sanchez
- 04/06 Licensing Patent No. 6,955,884 to Boehringer Ingelheim

Patents Pending:

- 10/03 Identification and characterization of NACE, a *S. mansoni* ecto-enzyme; F.E. Lund and T.D. Randall
- 01/06 Identification and characterization of a TRPM2 antagonist; F.E. Lund, S. Partida-Sanchez and T. Walseth

Publications (74 in total):

1. King, L.B., **F.E. Lund**, D.A. White, S.Sharma and R.B. Corley. 1990. Molecular events in B lymphocyte differentiation. Inducible expression of the endogenous mouse mammary tumor proviral gene, Mtv-9. *J. Immunol.* 144:3218-3227.
2. Woodland, D.L., **F.E. Lund**, M.P. Happ, M.A. Blackman, E. Palmer and R.B. Corley. 1991. Endogenous super-antigen expression is controlled by mouse mammary tumor proviral loci. *J. Exp. Med.* 174:1255-1258.
3. **Lund, F.E.** and R.B. Corley. 1991. Regulated expression of mouse mammary tumor proviral genes in

- cells of the B lineage. *J. Exp. Med.* 174:1439-1450.
4. Corley, R.B. and **F.E. Lund**. 1991. Endogenous super-antigens and retroviruses: "Who's zooming Who?" *Current Biology* 1:278-280.
 5. Blackman, M.A., **F.E. Lund**, S. Surman, R.B. Corley and D.L. Woodland. 1992. MHC restricted recognition of retroviral superantigens by V β 17⁺ T cells. *J. Exp. Med.* 176:275-280.
 6. Corley, R.B., **F.E. Lund**, T.D. Randall, L.B. King, S. Doerre and D.L. Woodland. 1992. Mouse mammary tumor proviral gene expression in cells of the B lineage. *Semin. Immunol.* 4:287-296.
 7. **Lund, F.E.**, T.D. Randall, D. Woodland, M.P. Happ and R.B. Corley. 1993. MHC Class II limits the functional expression of endogenous superantigens in B cells. *J. Immunol.* 150:78-86.
 8. Randall, T.D., **F.E. Lund**, J.W. Brewer, C. Aldridge, R. Wall, and R.B. Corley. 1993. IL-5 and IL-6 define two molecularly distinct pathways of B cell differentiation. *Mol. Cell. Biol.* 13:3929-3936.
 9. Harada, N., L. Santos-Argumedo, R. Chang, J.C. Grimaldi, **F.E. Lund**, C.I. Brannan, N.G. Copeland, N.A. Jenkins, A.W. Heath, R.M.E. Parkhouse and Maureen Howard. 1993. Expression cloning of a cDNA encoding a novel murine B cell activation marker. *J. Immunol.* 151:3111-3118.
 10. Howard, M., J.C. Grimaldi, J.F. Bazan, **F.E. Lund**, L. Santos-Argumedo, R.M.E. Parkhouse, T.F. Walseth, and H.C. Lee. 1993. Formation and hydrolysis of cyclic ADP-ribose catalyzed by lymphocyte antigen CD38. *Science.* 262:1056-1059.
 11. Santos-Argumedo, L., **F.E. Lund**, A.W. Heath, N. Solvason, W.W. Wu, J.C. Grimaldi, R.M.E. Parkhouse and M. Howard. 1995. CD38 unresponsiveness of *xid* B cells implicates Bruton's tyrosine kinase (*btk*) as a regulator of CD38 induced signal transduction. *Int. Immunol.* 7:163-170.
 12. **Lund, F.E.**, N.W. Solvason, M.P. Cooke, A.W. Heath, J.C. Grimaldi, R.M.E. Parkhouse, C.C. Goodnow and M. Howard. 1995. Signaling through murine CD38 is impaired in antigen receptor unresponsive B cells. *Eur. J. Immunol.* 25:1338-1345.
 13. **Lund, F.E.**, N. Solvason, C. Grimaldi, R.M.E. Parkhouse and M. Howard. 1995. Murine CD38: An immunoregulatory ectoenzyme. *Immunol. Today.* 16:469-473.
 14. Randall, T.D., **F.E. Lund**, M.C. Howard, and I. L. Weissman. 1996. Expression of murine CD38 defines a population of long-term reconstituting hematopoietic stem cells. *Blood.* 87:4057-4067.
 15. **Lund, F.E.**, N. Yu, K.-W. Kim, M. Reth and M. Howard. 1996. Signaling through CD38 augments B cell antigen receptor (BCR) responses and is dependent on BCR expression. *J. Immunol.* 157:1455-1467.
 16. Cockayne, D.A., T. Muchamuel, J. C. Grimaldi, H. Muller-Steffner, T. D.Randall, **F. E. Lund**, R. Murray, F. Schuber, and M.C. Howard. 1998. Mice deficient for the ecto-NAD⁺ glycohydrolase CD38 exhibit altered humoral immune responses. *Blood.* 92:1324-1333.
 17. Randall T.D., A.W. Heath, L. Santos-Argumedo, M.C. Howard, I.L. Weissman and **F.E. Lund**. 1998. Arrest of B lymphocyte terminal differentiation by CD40 signaling: Mechanism for lack of antibody secreting cells in germinal centers. *Immunity.* 8:733-742.
 18. **Lund, F.E.**, H. Muller-Steffner, N. Yu, F. Schuber and M. Howard. 1999. CD38 signaling is controlled by its ectodomain but occurs independently of enzymatically generated ADP-ribose or cyclic ADP-ribose. *J. Immunol.* 162:2693-2702.
 19. Harris, D.P., Haynes, L., Sayles, P.C., Duso, D.K., Eaton, S.M. Lepak, L.M., Johnson, L.L., Swain, S.L. and **Lund, F.E.** 2000. Reciprocal regulation of polarized cytokine production by effector B and T cells. *Nature Immunology*, 1: 475-482.
 20. Partida-Sanchez, S., Cockayne, D., Monard, S., Jacobson, E.L., Oppenheimer, N., Garvy, B.A., Kusser, K., Goodrich, S, Howard, M.C., Harmsen, A., Randall, T.D. and **Lund, F.E.** 2001. Cyclic ADP-ribose production by CD38 regulates intracellular calcium release, extracellular calcium influx and chemotaxis in neutrophils and is required for bacterial clearance in vivo. *Nature Medicine*, 7:1209-1216.

21. **Lund, F.E.**, Randall, T.D., and Partida-Sanchez, S. 2002. Does neutrophil CD38 play a role in Ca²⁺ signaling triggered by β2 integrin?-response. *Nature Medicine*, 8:307-308.
22. **Lund, F.E.**, Partida-Sanchez, S., Lee, B.O., Kusser, K.L., Hartson, L., Hogan, J., Woodland, D., Randall, T.D. 2002. Lymphotoxin-α-deficient mice are resistant to influenza infection, but make delayed T and B cell responses. *J. Immunol.* 169:5236-5243.
23. Ceni, C., Pochon, N., Brun, V., Muller-Steffner, H., Andrieux, A. Grunwald, D., Schuber, F., De Waard, M., **Lund, F.**, Villaz, M., Moutin, M. 2003. CD38-dependent ADP-ribosyl cyclase activity in developing and adult mouse brain. *Biochem. J.* 370:175-183.
24. Kim, I.-J., Flano, E., Woodland, D.L., **Lund, F.E.**, Randall, T.D., Blackman, M.A. 2003. Maintenance of γ-herpesvirus B cell latency is dependent on CD40-mediated mechanisms of B cell differentiation into long-lived memory cells. *J. Immunol.* 171:886-892.
25. **Lund, F.E.**, Schuer, K., Hollifield, M., Randall, T.D., Garvy, B.A. 2003. Clearance of *Pneumocystis carinii* in mice is dependent on B cells but not on *P. carinii* specific antibody. *J. Immunol.* 171:1423-1430.
26. Ceni, C., Muller-Steffner, H., **Lund, F.**, Pochon, N., Schweitzer, A., De Waard, M., Schuber, F., Villaz, M., Moutin, M-J. 2003. Evidence for an intracellular ADP-ribosyl cylcase/NAD⁺ -glycohydrolase in brain membranes of CD38 deficient mice. *J. Biol. Chem.* 278:40670-40678.
27. Ceni, C., Muller-Steffner, H., **Lund, F.**, Pochon, N., Schweitzer, A., De Waard, M., Schuber, F., Villaz, M., Moutin, M-J. 2003. Evidence for an intracellular ADP-ribosyl cylcase/NAD⁺ -glycohydrolase in brain membranes of CD38 deficient mice. *J. Biol. Chem.* 278:40670-40678.
28. Lacapere, J-J., Boulla, G. **Lund, F.E.**, Primack, J., Oppenheimer, N., Schuber, F., Deterre, P. 2003. Fluorometric studies of ligand-induced conformational changes of CD38. *Biochem. Biophys. Acta.* 1652:17-26.
29. Lee, B.O., Moyron-Quiroz, J., Rangel-Moreno, J., Kusser, K.L., Hartson, L., Sprague, F., **Lund, F.E.**, Randall, T.D. 2003. CD40, but not CD154, expression on B cells is necessary for optimal B cell responses. *J. Immunol.* 171:5707-5717.
30. Partida-Sanchez, S., Iribarren, P., Moreno-Garcia, M.E., Gao, J-L., Murphy, P.M., Oppenheimer, N., Wang, J.M., **Lund, F.E.** 2004. Chemotaxis and calcium responses of phagocytes to formylpeptide receptor ligands is differentially regulated by cyclic ADP-ribose. *J. Immunol.* 172:1896-1906.
31. Moreno-Garcia, M.E., Partida-Sanchez, S., Primack, J., Sumoza-Toledo, A., Muller-Steffner, H., Schuber, F., Oppenheimer, N., **Lund, F.E.**, Santos-Argumedo, L. 2004. CD38 is expressed as non-covalently associated homo-dimers on the surface of murine B lymphocytes. *Eur. J. Biochem.* 271:1025-1034.
32. Partida-Sanchez, S., Goodrich, S., Kusser, K., Randall, T.D., **Lund, F.E.** 2004. Regulation of dendritic cell trafficking by the ADP-ribosyl cyclase CD38: Impact on the development of humoral immunity. *Immunity.* 20:279-291.
33. Moyron-Quiroz, J.E., , Rangel-Moreno, J., Kusser, K., Hartson, L., Sprague, F., Goodrich, S., Woodland, D.L., **Lund, F.E.**, Randall, T.D. 2004. Role of inducible Bronchus Associated Lymphoid Tissue (iBALT) in respiratory immunity. *Nature Med.* 10:927-934.
34. Cupedo, T., **Lund, F. E.**, Ngo, V. N., Randall, T. D., Jansen, W., Greuter, M. J., de Waal-Malefyt, R., Kraal, G., Cyster, J. G., and Mebius, R. E. 2004. Initiation of cellular organization in lymph nodes is regulated by non-B cell derived signals and is not dependent on CXCL13. *J. Immunol.* 173:4889-4896.
35. Thompson, M., Barata da Silva, H., Zielinska, W., White, T.A., Bailey, J.P., **Lund, F.E.**, Sieck, G.C., Chini, E.N. 2004. Role of CD38 in myometrial Ca²⁺ transients: Modulation by progesterone. *Am. J. Physiol. Endocrinol. Metab.* 287:E1142-E1148.
36. Kotlikoff, M.I., Kannan, M.S., Solway, J., Deng, K.Y., Deshpande, D.A., Dowell, M., Feldman, M., Green, K.S., Ji, G., Johnston, R., Lakser, O., Lee, J., **Lund, F.E.**, Milla, C., Mitchell, R.W., Nakai, J., Rishniw, M., Walseth, T.F., White, T.A., Wilson, J., Xin, H.B., Woodruff, P.G. 2004. Methodologic advancements in the study of airway smooth muscle. *J. Allergy Clin. Immunol.* 114:S18-31.

37. Deshpande, D.A., White, T.A., Guedes, A.G., Milla, C.E., Walseth, T.F., **Lund, F.E.**, Kannan, M.S. 2005. Altered airway responsiveness in CD38 deficient mice. *Am. J. Respir. Cell. Mol. Biol.* 32:149-156.
38. Moreno-Garcia, M.E., Sumoza-Toledo, A., **Lund, F.E.**, Santos-Argumedo, L. 2005. Sub-cellular analysis of CD38 in murine B lymphocytes: A molecule mainly expressed on the plasma membrane. *Mol. Immunol.* 42:703-711.
39. Krebs, C., Adriouch, S., Braasch, F., Koestner, W., Leiter, E.H., Seman, M., **Lund, F.E.**, Oppenheimer, N., Haag, F., Koch-Nolte, F. 2005. CD38 controls ART2-catalyzed ADP-ribosylation of T cell surface proteins. *J. Immunol.* 174:3298-305.
40. Harris, D.P., Goodrich, S., Gerth, A.J., Peng, S.L., **Lund, F.E.** 2005. Regulation of IFN γ production by effector Be1 cells: Essential roles for T-bet and the IFN γ receptor. *J. Immunol.* 174:6781-6790.
41. Goodrich, S.P., Muller-Steffner, H., Osman, A., Moutin, M-J., Kusser, K., Roberts, A., Woodland, D.L., Randall, T.D., Kellenberger, E., LoVerde, P.T., Schuber, F., **Lund, F.E.** 2005. Production of calcium-mobilizing metabolites by a novel member of the ADP-ribosyl cyclase family expressed in *Schistosoma mansoni*. *Biochemistry.* 44:11082-11097.
42. Mohrs, K., Harris, D.P., **Lund, F.E.**, Mohrs, M. 2005. Systemic dissemination and persistence of Th2 cells in response to infection with a strictly enteric nematode parasite. *J. Immunol.* 175:5306-5313.
43. Lee, B.O., Rangel-Moreno, J., Moyron-Quiroz, J.E., Hartson, L., Sprague, F., **Lund, F.E.**, Randall, T.D. 2005. CD4 T cell-independent antibody response promotes resolution of primary influenza infection and helps to prevent reinfection. *J. Immunol.* 175:5827-5838.
44. **Lund, F.E.**, Moutin, M-J., Muller-Steffner, H., Schuber, F. 2005. ADP-ribosyl cyclase and GDP-ribosyl cyclase activities are not always equivalent: impact on the study of the physiological role of cyclic ADP-ribose. *Analytic Biochem.* 346:336-338.
45. Harris, D.P., Goodrich, S., Mohrs, K., Mohrs, M., **Lund, F.E.** 2005. Cutting Edge: The development of IL-4 producing B cells (Be2 cells) is controlled by IL-4, IL-4R α and Th2 cells. *J. Immunol.* 175:7103-7107.
46. Meissner, N.N., **Lund, F.E.**, Han, S., Harmsen, A. 2005. CD8 T cell mediated lung damage in response to the extracellular pathogen *Pneumocystis* is dependent on MHC I expression by radiation resistant lung cells. *J. Immunol.* 175:8271-8279.
47. Crowe, S.R., Miller, S.C., Brown, D.M., Adams, P.S., Dutton, R.W., Harmsen, A.G., **Lund, F.E.**, Randall, T.D., Swain, S.L., Woodland, D.L. 2006. Uneven distribution of MHC Class II epitopes within the influenza virus. *Vaccine.* 24:457-467.
48. **Lund, F.E.**, Hollifield, M., Schuer, K., Lines, J.L., Randall, T.D., Garvy, B.A. 2006. B cells are required for generation of protective effector and memory CD4 cells in response to *Pneumocystis* lung infection. *J. Immunol.* 176:6147-6154.
49. Young, G.S., Choleris, E., **Lund, F.E.**, Kirkland, J.B. 2006. Decreased cADPR and increased NAD⁺ in the *Cd38*^{-/-} mouse. *Biochem. Biophys. Res. Comm.* 346:188-192.
50. Khader, S.A., Partida-Sanchez, S., Bell, G., Jelley-Gibbs, D.M., Swain, S., Pearl, J.E., Ghilardi, N., deSavage, F., **Lund, F.E.**, Cooper, A.M. 2006. IL-12p40 is required for dendritic cell migration and T cell priming following *Mycobacterium tuberculosis* infection. *J. Exp. Med.* 203:1805-1815.
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