

CURRICULUM VITAE

Richard P. Phipps Ph.D.
Professor and Director

Place of Birth: Baltimore, Maryland

Citizenship: U.S.A.

Home Address: 26 Greylock Ridge
Pittsford, New York 14534

Office Address: Lung Biology & Disease Program, Box 850,
MRBX, Rm 3-11104
University of Rochester
School of Medicine & Dentistry
601 Elmwood Avenue
Rochester, New York 14642
Phone: 585-275-8326
Fax: 585-276-0239
E-mail: richard_phipps@urmc.rochester.edu

EDUCATION

Loyola College, Baltimore, Maryland
1973-1977, BS. MT. (ASCP)

Mercy Hospital, Department of Pathology, Baltimore, Maryland
1976-1977, Medical Technology Internship

Medical College of Virginia, Richmond, Virginia
1977-1980, Predoctoral Student (Adviser: Dr. John Tew)

The Walter & Eliza Hall Institute of Medical Research
Melbourne, Australia, 1979-1980, Postgraduate Scholar
(Advisers: Prof. Sir Gustav Nossal, Dr. Thomas Mandel)

Ph.D. Dissertation: Role and characterization of antigen retention in lymphoid follicles on antigen retaining dendritic cells, 1980.

Medical College of Virginia, Richmond, Virginia
1980-1981, Postdoctoral Fellow (Adviser: Dr. John Tew)

Duke University, School of Medicine, Division of Immunology, Durham, N.C.
1981-1983, Postdoctoral Fellow (Adviser: Dr. David Scott)

APPOINTMENTS

University of Rochester Cancer Center, 1983-1984.
Senior Instructor of Oncology in Microbiology and Immunology

University of Rochester Cancer Center, 1984-1989.
Assistant Professor of Oncology in Microbiology and Immunology

University of Rochester Cancer Center, 1989-1990.
Associate Professor of Oncology in Microbiology and Immunology

University of Rochester Cancer Center, 1991-1994
Associate Professor of Oncology in Microbiology & Immunology and Pediatrics

University of Rochester Cancer Center, 1994-1996.
Associate Professor of Oncology in Microbiology & Immunology, Pediatrics and Environmental
Medicine

University of Rochester Cancer Center, 1994-2000.
Co-Director-Thoracic Oncology Program

University of Rochester Cancer Center, 1996-2001.
Professor of Oncology in Microbiology & Immunology, Pediatrics and Environmental Medicine

University of Rochester, Department of Environmental Medicine 2001- present
Professor of Environmental Medicine, Medicine, Microbiology & Immunology, Oncology,
Ophthalmology, Obstetrics & Gynecology, Pathology & Laboratory Medicine, and Pediatrics

Director: Lung Biology and Diseases Program, University of Rochester School of Medicine &
Dentistry, 2001- present

RESEARCH INTERESTS (see last page of c.v. for extended research interest description)

- Control of normal and malignant B lymphocyte activation, proliferation and differentiation by prostaglandins and cytokines.
- Role of the CD40-CD40 ligand system in lung fibrosis and fibroblast activation.
- Tobacco smoke induced activation of fibroblasts and lung inflammation.
- Fibroblast subsets and Graves' ophthalmopathy
- Platelet biology and inflammation

SPECIAL AWARDS, FELLOWSHIPS AND HONORS

Loyola College Scholarship, Maryland Senatorial Scholarship, Cummins Engine Company Scholarship, 1973-1977.

Graduated magna cum laude, Loyola College, 1977.

Predoctoral Fellowship, Department of Microbiology, The Medical College of Virginia, N.I.H. Research Training in Infectious Disease, 1977-1979.

Predoctoral Fellowship, Department of Microbiology, The Medical College of Virginia, N.I.H. Research Training in Cancer Etiology and Treatment, 1979-1980.

Postgraduate Scholar at the Walter & Eliza Hall Institute of Medical Research, Melbourne, Australia, 1979-1980.

First Prize, Virginia Academy of Science, Microbiology Section, 1980.

Postdoctoral Fellowship, Division of Immunology, Duke University Medical Center, NIH Research Training in Immunology, 1981-1982.

Arthritis Foundation Fellowship, 1982-1984.

Arthritis Foundation Investigatorship: 1984-1987.

National Institute of Arthritis, Arthritis Foundation Travel Fellowship to attend NIH conference on Molecular Biological Approaches to Rheumatic Diseases, 1986.

Arthritis Foundation/Merck, Sharp & Dohme Travel Fellowship to attend American Rheumatism Association Meeting, 1986.

Featured Speaker-Second Interlaken Conference on Prostaglandins and Leukotrienes, Interlaken, Switzerland, 1992.

Visiting Professor: Russian Pulmonary Research Institute and the Institute for Experimental Medicine, Moscow and St. Petersburg, Russia, C.I.S. 1993.

Distinguished Alumni Award for Excellence in Research and Scholarship-Medical College of Virginia, Richmond, Virginia, 1993.

Arthur Kornberg Research Prize-University of Rochester School of Medicine and Dentistry, 1998.

Burroughs-Wellcome Visiting Professor MRC Center for Reproductive Biology-Edinburgh, Scotland, 1999.

University of Rochester, Faculty Award for Mentoring Pre-Doctoral students and Post-Doctoral Fellows, 2002.

University of Rochester, Excellence in Research Award, 2006.

University of Rochester, Toxicology Student Award for Teaching, 2007.

MEMBERSHIP - SCIENTIFIC, HONORARY & PROFESSIONAL SOCIETIES

American Association for Cancer Research (2006-present)
The American Physiological Society (2005-present)
The American Association of Immunologists (1983-present)
The American Society of Clinical Pathology (1977-present)
American Society for Investigative Pathology (2003-present)
Phi Kappa Phi - Honor Society (1974-present)
The American Thoracic Society (1990-1994, 1999-present)
The New York Academy of Science (1983-1993)
The Wound Healing Society (1989-1995)
Society for Leukocyte Biology (1977-1980, 1988-1992)
Genesee Valley Arthritis Foundation (1983-1991)

PRESENTATION OF SPECIAL SEMINARS OR LECTURES

Department of Microbiology, Medical College of Virginia, Richmond, VA, 1978, "Spontaneous induction and feedback regulation of specific antibody synthesis".

Department of Microbiology, University of Southern California Medical School, Los Angeles, CA, 1979, "Antigen retention and the follicular dendritic cell".

The Walter & Eliza Hall Institute of Medical Research, Melbourne, Australia, 1979, "The antigen retaining follicular dendritic cell".

Dept. of Microbiology, Medical College of Virginia, Richmond, VA, 1980, Ph.D. Defense: "Role and characterization of antigen retention in lymphoid follicles on antigen retaining dendritic cells".

Department of Immunology & Microbiology, Wayne State Univ. School of Medicine, 1980, "Role and characterization of antigen retention in lymphoid follicles on antigen retaining dendritic cells".

Department of Pathology, School of Medicine, University of California San Diego, La Jolla, CA, 1980, "The antigen retaining follicular dendritic cell".

Division of Immunology, Duke University Medical Center, 1980, "Role and characterization of antigen retention in lymphoid follicles on antigen retaining dendritic cells".

Merck Institute - Research Laboratories, Rahway, NJ, 1983, "Accessory cell enhancement of immunological responsiveness".

University of Rochester Cancer Center, Rochester, NY, 1983, "A novel role for macrophages in tolerance induction".

Department of Microbiology and Immunology, University of Kentucky, Lexington, KY, 1983, "The ability of macrophages to tolerize B cells".

University of Rochester, Rochester, NY, 1984, "Conversion of a tolerogenic signal to an immunogenic one".

East Carolina University School of Medicine, Greenville, NC, 1986, "Nucleic acid antigens: ability to trigger DNA-specific B cells in vitro".

University of Rochester, Rochester, NY, 1986, "Isolation and characterization of autoreactive DNA-specific B cells".

International Symposium on Antigen Presenting Cells: Richmond, VA, 1987, "Macrophage and lymphoid dendritic cell differential presentation of immunoglobulin tolerogen and immune complexes".

Eastman Kodak, Rochester, NY, 1987, "Triggering of guanosine-specific B lymphocytes using DNA as an antigen".

Department of Microbiology and Immunology, Medical College of Virginia, Richmond, VA, 1988, "Role of macrophage-secreted prostaglandin in potentiating negative signaling of normal and neoplastic B cells".

Genentech, Inc., San Francisco, CA, 1988, "Role of macrophage-secreted prostaglandin in potentiating negative signaling of normal and neoplastic B cells".

NHLBI, Mechanisms of Lung Fibrosis, Bethesda, MD, 1989, "Fibroblast involvement in developing pulmonary fibrosis".

Department of Microbiology and Immunology, University of Miami, Miami, FL, 1989, "Characterization of two major populations of lung fibroblasts and their regulation by lymphokines".

Medical Oncology Division, University of Rochester, Rochester, NY, 1989, "Chemotherapy and Radiation Induced Pulmonary Fibrosis: Role of Cytokines and Fibroblast Subpopulations".

Cancer Center, University of Maryland, Baltimore, MD, 1990, "Characterization and immune functions of two major subsets of lung fibroblasts".

Fisons Pharmaceutical Co. Inc. Rochester, NY, 1990, "Immunologic characterization of lung fibroblast subpopulations".

Department of Immunology and Infectious Disease, Johns Hopkins University, Baltimore, MD, 1990, "Characteristics of subpopulations of lung fibroblasts".

Departments of Pediatrics and Microbiology and Immunology, University of Texas at San Antonio, San Antonio, TX. 1991, "Characterization and Immune functions of subsets of pulmonary fibroblasts".

Wilford Hall U.S. Air Force Hospital, San Antonio, TX, 1991, "Immune functions of subsets of pulmonary fibroblasts".

Department of Radiation Oncology, University of Rochester, Rochester, NY, 1992, "Differential cytokine synthesis by subsets of pulmonary fibroblasts".

Featured speaker: Second Interlaken Conference on Prostaglandins and Leukotrienes, Interlaken, Switzerland, 1992, "Prostaglandin E regulation of the immune response".

Featured speaker: Winter International Prostaglandins Conference, Keystone, CO, 1993, "Prostaglandin E₂ control of normal and neoplastic B cell proliferation and differentiation".

Department of Pathology, University of Pennsylvania, Philadelphia, PA, 1993, "Prostaglandin E₂: Suppressor or regulator of normal and malignant B lymphocytes".

Bayer AG Pharmaceutical Inc., Wuppertal, Germany, 1993, "Prostaglandin E₂ regulation of the immune response".

Russian Institute of Perinatology and Neonatology, Moscow, Russia, 1993, "Prostaglandin E₂ control of normal and malignant B cell growth and differentiation".

Russian Pulmonary Research Institute, Moscow, Russia, 1993, "Radiation-induced lung fibrosis: Role of fibroblast subsets."

Institute of Carcinogenesis-Cancer Research Center, Moscow, Russia, 1993, "Prostaglandin E₂ regulation of B lymphoma growth and survival".

Russia State Medical University, Moscow, Russia, 1993, "Regulation of IgE synthesis by prostaglandin E₂".

Russian Academy of Medical Sciences, St. Petersburg, Russia, 1993, "Regulation of normal and neoplastic B lymphocyte growth and differentiation by prostaglandin E₂".

The Institute for Experimental Medicine, St. Petersburg, Russia, 1993, "Cytokine production by pulmonary fibroblast subsets".

Russia State Medical University, Moscow, Russia, 1993, "Molecular and cellular analysis of lung fibroblast subsets".

Wilford Hall U.S. Air Force Hospital, San Antonio, TX, 1993, "Induction of nitric oxide synthase by cytokines in lung fibroblast subsets".

Medical College of Virginia, Dept. of Microbiology & Immunology, Richmond, VA, 1993, "PGE₂ regulation of IgE synthesis".

Fisons Corp. Rochester, NY, 1994, "Nitric oxide production by pulmonary fibroblast subsets".

Biogen Corp., Boston, MA, 1994, "Regulation of normal and neoplastic B lymphocytes by prostaglandins".

Zeneca Pharmaceuticals, Wilmington, DE, 1994, "Pulmonary fibroblast subsets and interstitial lung disease".

International Institute of Biological Medicine, Moscow, Russia, 1994, "Pulmonary fibroblast heterogeneity".

University of Rochester, Department of Medicine, 1994, "Nitric oxide production by lung fibroblasts".

University of Rochester, Endocrinology Unit, 1994, "Prostaglandins and the immune response".

University of Rochester, Cancer Center, 1994, "Fibroblast Heterogeneity-Lung fibrosis and Inflammation".

Plenary Speaker, International Conference on Wound Healing, San Francisco, CA, 1994, "Fibroblast heterogeneity".

University of Rochester, Neonatology Division, 1994, "Pulmonary fibroblast heterogeneity".

Gordon Research Conference on Periodontal Disease, 1994, "Characterization of fibroblasts from periodontal and other tissues".

University of Alberta at Edmonton, Burn Research Unit, 1994, "Fibroblast Heterogeneity and Interaction with Tissue Mast Cells".

University of Alberta, Edmonton, Pulmonary Division, 1994, "Cytokine Production by Lung Fibroblasts and Interaction with T lymphocytes".

University of Maryland at Baltimore, Dept. of Microbiology and Immunology and Cancer Center, 1995, "Fibroblast heterogeneity: Implications for lung inflammation, and fibrosis".

Medical College of Georgia, Augusta, GA. School of Dentistry, 1995, "Prostaglandin regulation of B lymphocyte differentiation".

Albany Medical College, Albany, NY, Department of Medicine Grand Rounds, 1995, "Pulmonary inflammation, fibrosis and fibroblast subsets".

Wayne State University, Detroit, MI, Department of Radiation Oncology, 1995, "Fibroblast heterogeneity: Implications for pulmonary fibrotic disease".

Setchenov Medical Academy, Moscow Russia, 1995, "Fibroblast heterogeneity".

International Institute of Biological Medicine, 1995, "Inflammation and cytokines".

Organogenesis, Boston, MA, 1995, "Fibroblast subsets and interaction with T lymphocytes".

University of Maryland at Baltimore, Cancer Center, 1995, "Regulation of B cell lymphomas by prostaglandins".

Bristol-Myers-Squibb, Syracuse, NY, 1995, "Significance of CD40 expression on human fibroblasts".

Invited Speaker-International Conference on Periodontology, NY, 1995, "Periodontal fibroblast heterogeneity".

Invited Speaker-International Conference on Eicosanoids, Cancer and Inflammation, Hong Kong, 1995, "PGE₂ regulation of B lymphocytes and T helper cells: Induction of inflammatory vs. allergic responses".

University of Rochester, Department of Psychiatry, 1995, "Control of Th1 and Th2 responses by Prostaglandins".

University of Rochester, Cancer Center Grand Rounds, 1996, "Radiation induced lung injury-therapeutic strategies".

Bristol-Myers Squibb, Syracuse, NY, 1996, "Role of CD40 in lung inflammation and fibrosis".

University of Rochester, Neonatology Division, 1996, "Role of CD40 in oxygen-induced lung inflammation and fibrosis".

National Cancer Institute, Bethesda, MD, 1996, "Prostaglandins and normal and malignant B lineage cells".

University of Kentucky, Department of Microbiology and Immunology, 1996, "CD40 is an activation antigen for human fibroblasts".

Oxford Bioresearch Labs, Oxford, United Kingdom, 1996, "Importance of CD40 in fibroblast activation and wound repair".

Boehringer-Ingelheim Inc. Ridgeway, CT, 1996, "Fibroblast activation by the CD40-CD40L pathway".

Pasteur Merieux Connaught, Toronto, Ontario, Canada, 1997, "Prostaglandin E₂ control of antibody responses and Th1 and Th2 cytokines".

Medical University of South Carolina, Charleston, SC, 1997, "Fibroblast-immune cell interactions in acute and chronic lung injury".

Plenary speaker: Fourth International Congress on Essential Fatty Acids and Eicosanoids, Edinburgh, Scotland, 1997, "Prostaglandin E₂ regulation of normal and malignant B lineage cells".

Symposia speaker: Fifth International Conference on Eicosanoids and other Bioactive Lipids in Cancer, Inflammation and Related Diseases, San Diego, CA, 1997, "Prostaglandin E₂ promotes B lymphocyte differentiation to IgE secreting cells: implications for allergy and asthma".

University of Rochester, Department of Radiation Oncology, 1998, "Role of the CD40-CD40 ligand system in pulmonary fibrosis induced by ionizing radiation".

Biogen Corp. Boston, MA, 1998, "Role of the CD40-CD40 ligand system in pulmonary wound repair".

Genetics Institute. Boston, MA, 1998, "Fibroblast interaction with immune cells: Role of the CD40-CD40 ligand system in wound repair".

University of Edinburgh, Edinburgh, Scotland, 1998, "Fibroblast regulation of wound healing in the lung and other tissues".

University of Strathclyde, Glasgow, Scotland, 1998, "Prostaglandins regulate Th1 and Th2 immune responses".

Vanderbilt University, Nashville, TN, 1998, "Fibroblast interaction with immune cells: Role of the CD40-CD40 ligand system in wound repair".

Duke University School of Medicine, 1998, "Fibroblast heterogeneity and role of fibroblasts in immune cell activation".

University of Glasgow, Department of Immunology, 1999, "Role of the CD40-CD40 ligand system in wound healing".

University of Rochester, Department of Obstetrics and Gynecology, 1999, "Fibroblast heterogeneity in the reproductive tract".

Biogen Corporation, Cambridge, MA, 1999, "Disruption of the CD40-CD40 ligand pathway in lung inflammation and fibrosis".

University of Rochester, Immunology research in progress forum, 1999, "CD40-CD40 ligand interactions in the fibroblast".

University of Rochester, Department of Obstetrics and Gynecology, 2000, "Fibroblast heterogeneity in the female reproductive tract and production of inflammatory cytokines".

National Institutes of Health, NICHD, 2000, "Fibroblast heterogeneity in the female reproductive tract and production of inflammatory cytokines".

University of Rochester, Pulmonary Biology seminar series, 2000, "Role of the CD40-CD40 ligand system in lung inflammation and fibrosis".

Genetics Institute, Andover, MA, 2000, "Fibroblasts as sentinel cells of the lung".

University of Rochester, Rochester, NY, 2000, "Fibroblast Immune cell interactions".

Schering-Plough, Kenilworth, NJ, 2000, "The role of the CD40/CD40 ligand system in lung inflammation and fibrosis".

UCLA School of Medicine, Los Angeles, CA, 2001, "The CD40/CD40 ligand system and lung fibrosis".

UCLA Harbor School of Medicine, Torrance, CA, 2001, "The CD40/CD40 ligand system and lung inflammation and fibrosis".

Stanford University, Palo Alto, CA, 2001, "Prostaglandin regulation of immunity".

Robert Wood Johnson School of Medicine, New Jersey, 2001, "Fibroblast immune cell interaction in lung fibrosis".

FASEB New Orleans, LA 2002, “Anti-inflammatory 15d-PGJ2 and PPAR γ agonists induce apoptosis in B lineage cells by a caspase and NF κ B dependent mechanism: implications for immunity”.

Schering-Plough, Kenilworth, NJ, 2002, “PPAR γ agonists as anti-inflammatory agents”.

University of Rochester, Rochester, NY, Lung Biology Seminar Series, 2002, “Lung fibroblast activation by the CD40-CD40 ligand system”.

University of Rochester, Department of Pathology, Rochester, NY, 2002, “Fibroblast activation by the CD40/CD40 ligand system”.

University of Rochester, Rochester, NY, 2002, MRB-X Opening Ceremony Presentations. “Asthma, Current and Future Therapies”.

Schering-Plough, Kenilworth, NJ, 2002, “Autoinducers-bacterial pathogenesis and immune regulation”.

Bausch & Lomb, Rochester, NY 2002, “Fibroblast diversity and role in inflammation”.

Schering-Plough, Kenilworth, NJ, 2003, “Lung inflammation, neutrophil activation, and cigarette smoking”.

Johnson and Johnson, Rochester, NY, 2003, “Pre-clinical animal models of lung disease”.

FASEB:, Washington, D.C, 2004. “Prostaglandins and PPAR γ agonists as attenuators of B lymphocytes and B cell lymphomas”

Roswell Park, Buffalo, NY, 2004. “Prostaglandins and PPAR γ agonist regulation of B cells and B cell lymphoma”

NIH/NIAID, Bethesda, MD, 2004. “Radiation lung scarring and the CD40-CD40 ligand pathway”

AADR, Rochester, NY, 2004. “Platelet expression of PPAR γ : implications for periodontitis, diabetes, and cardiovascular disease”

James P. Wilmot Cancer Center, Rochester, NY, 2004, “Research opportunities and development plans for the Lung Biology and Disease Program”

Institute of Oncology International Cancer Conference, Ismir, Turkey, 2004, “PPAR γ agonists as potential therapy for B cell lymphoma”

Hacettepe University, Ankara Turkey, 2004. “Prostaglandins and PPAR γ agonists as attenuators of B lymphocytes and B cell lymphomas”

NIH/NIAID/HHS, Bethesda, MD, 2004. “Novel strategies for protecting against radiation injury”

NIH/NHLBI, Bethesda, MD, 2004. “Role of Platelets in Inflammation”

European Tissue Repair Society Meeting, Nyon, Switzerland, 2004, “Fibroblast Heterogeneity”

Bausch and Lomb, Rochester, NY, 2005 “Immunity, Inflammation, and the PPAR γ Pathway”

UCLA, Los Angeles, CA, 2005. “Orbital Fibroblast Adipogenesis”

ACT Cancer Technology, San Diego, CA, 2005 “PPAR γ Ligands as Anti-Cancer Agents”

Eicosanoids Conference, San Francisco, CA, 2005, “Human Platelets and Megakaryocytes Express the Transcription Factor Peroxisome Proliferator Activated Receptor gamma (PPAR gamma) and Respond to Prostaglandin PPAR gamma ligands: Implications for Inflammation, Diabetes and Cardiovascular Disease”

SUNY Buffalo, Buffalo, NY, 2005 “Fibroblasts as Modulators of Immunity, Inflammation and Cancer”

U of Vermont, Burlington, VT, 2005 “The PPARgamma pathway attenuates lung scarring and inflammation”

Chantilly, VA 2005 “The role of aryl hydrocarbon receptor (AHR) in controlling inflammatory responses induced by cigarette smoke”

Pacific National Laboratories, Richland, WA 2006 “Role of the transcription factor PPAR γ in platelet activation and in inflammatory lung disease”

Hunter College, New York, NY, 2006, “Prostaglandins and PPARgamma ligands as modulators of B lymphocytes and B cell lymphomas”

NIH Bethesda, MD – Rochester, NY, 2006, “Strategies to mitigate radiation damage to the lung and other tissues”

East Carolina School of Medicine, Greenville, NC, 2006, “PPAR α and PPAR β ligand regulation of normal and malignant B lineage cells”

University of Rochester, Rochester, NY 2006 Excellence in Research Day “Platelets: Sentinels of the Circulation”

University of Rochester, Rochester, NY 2007, Ophthalmology Department, Research Colloquium, “Thyroid Eye Disease: role of the orbital fibroblast and white blood cells”

New York University School of Medicine, New York, NY, 2007, “B lymphocyte expression of cyclooxygenase-2 and antibody production”

Bausch and Lomb, Rochester, NY, 2007, “Inflammation and Ocular Diseases”

PAPERS DELIVERED AT CONFERENCES *oral presentation

*1979 FASEB, Atlanta, GA.

1979 Australian Society For Immunology, Sydney, Australia.

*1980 Virginia Academy of Science, Charlottesville, VA. (invited).

*1980 National Meeting of Reticuloendothelial Society, Tampa, FL.

- 1981 National Meeting of Reticuloendothelial Society, Milwaukee, WI.
1982 FASEB, New Orleans, LA.
1983 UCLA - Symposia on Molecular and Cellular Biology, Steamboat Springs, CO.
*1983 FASEB, St. Louis, MO.
*1983 Arthritis Foundation Fellows Conference, Amelia Island, FL. (invited).
1984 UCLA - Symposia on Molecular and Cellular Biology, Park City, UT.
*1984 FASEB, New Orleans, LA.
1985 FASEB, St. Louis, MO.
*1985 Arthritis Foundation Fellows Conference, Sanibel Island, FL. (invited).
*1986 American Rheumatism Association Meeting, New Orleans, LA.
*1986 Sixth International Congress of Immunology, Toronto, Canada
1987 FASEB, Washington, D.C.
*1987 International Reticuloendothelial Society Symposia, Richmond, VA. (invited).
1988 FASEB, Las Vegas, NV.
*1989 Cellular and Molecular Mechanisms of Lung Fibrosis, Bethesda MD. (invited).
*1989 UCLA Symposia: Immunogenicity, Steamboat Springs, CO.
*1989 International Immunology Congress, West Berlin, Germany.
1990 Midwinter Conference of Immunologists, Asilomar, CA.
*1990 Intl. Meeting of The Society for Aerosols in Medicine, Rochester, NY. (invited).
*1990 World Conference on Lung Health, Boston, MA.
1991 Midwinter Conference of Immunologists, Asilomar, CA.
1991 UCLA Symposia: Cytokines and their Receptors, Keystone, CO.
*1992 FASEB-American Association of Pathology, Anaheim, CA. (invited)
*1992 American Lung Assoc/American Thoracic Society, Miami, FL.
*1992 2nd Interlaken Conf. on Prostaglandins and Leukotrienes, Interlaken, Switz.(invited).
*1993 Winter International Prostaglandins Conference, Keystone, CO. (invited).
1993 UCLA Symposia: B lymphocytes, Taos, NM.
1993 AAI-CIS Immunology Conference, Denver, CO.
*1993 Intl. Conf. on Eicosanoids, Radiation Injury and Cancer, Washington DC. (invited).
1994 Symposia on inflammation, Tamarron, CO.
*1994 4th International Lung Conference, Moscow, Russia. (invited).
*1994 International Wound Healing Society Conference, San Francisco, CA. (invited).
*1994 Gordon Research Conference on Periodontal Disease, New Hampshire. (invited).
*1994 International Conference on Prostaglandins and Leukotrienes, Florence, Italy.
*1995 International Conference on Pulmonary Disease, Moscow, Russia.
*1995 International Conference on Periodontology, NY. (invited).
1995 International Immunology Congress, San Francisco, CA.
*1995 Intl. Conf. on Eicosanoids, Radiation and Inflammation, Hong Kong. (invited).
1996 International Conference on Wound Repair, Taos, NM.
*1996 International Conference on Eicosanoids, Vienna, Austria
1997 Keystone symposia on B lymphocytes, Steamboat Springs, CO.
*1997 Fourth International Congress on Essential Fatty Acids and Eicosanoids, Edinburgh, Scotland.
(Invited Plenary speaker).
*1997 Fifth International Conference on Eicosanoids and other Bioactive Lipids in Cancer.
Inflammation and Related Diseases, San Diego, CA. (Invited Speaker)
*1998 Regional Cancer Center Symposia, Buffalo, NY. (Invited Speaker)
1998 Intl. Conference on fibrosis, Siena, Italy.
1999 Conference on Th2 cytokines and helminth infections

- *1999 New York Academy of Sciences Intl. Conference of Lysophospholipids, NY, NY (Invited Speaker)
- *1999 American Society for Nephrology-Intl. Conference-Miami, (Invited Plenary Speaker)
- *2000 Aspen Lung Conference on Lung fibrosis- Aspen, CO, (Invited Speaker)
- *2000 American Association of Immunologists-San Francisco
- 2000 International Wound Healing Society Conference-Toronto, Canada
- *2000 International Conference on Lung fibrosis, Stockholm, Sweden-(Invited Plenary Speaker)
- 2001 Society for Gynecologic Investigation. Toronto, CA
- 2001 NIH Workshop on Endometriosis
- *2001 FASEB, Orlando, FL
- *2001 Conference on cardiovascular effects associated with air pollution, Rochester, NY (Invited speaker)
- 2001 B Cell Immunobiology and Disease
- *2001 International Graves Ophthalmopathy Conference, NY, NY (invited speaker and panelist)
- *2002 FASEB, New Orleans, LA
- *2002 Inflammation Research Group, Lake George, NY (Invited Speaker)
- *2002 Upstate New York, Trudeau Institute Immunology Conference (Invited Speaker)
- *2003 Keystone Conference on PPAR γ , Silverhome, CO
- *2003 Eicosanoid Conference, Chicago, IL
- *2003 FASEB, San Diego, CA
- *2003 ATS, Seattle, WA
- 2003 Society for Gynecologic Investigation, Annual Scientific Meeting, Washington, DC
- *2003 NIH Workshop for Women's Health Research Initiative, Bethesda, MD
- 2004 Keystone Conference on Lymphocytes, Steamboat Springs, CO.
- 2004 American Association for Cancer Research, Waikoloa, HI
- *2004 FASEB, Washington, D.C.
- *2004 AADR, Rochester, N.Y.
- *2004, James P. Wilmot Cancer Center, Rochester, NY
- *2004 International Conference on Clinical Oncology, Izmir
- *2004, Hacettepe University, Ankara Turkey
- *2004, NIH/NIAID/HHS, Bethesda, MD
- *2004, NIH/NHLBI, Bethesda, MD
- *2004, European Tissue Repair Society Meeting, Nyon, Switzerland,
- 2005, American Association for Cancer Research, Waikoloa, HI
- *2005, UCLA at Harbor, Los Angeles, CA
- 2005, Keystone Conference, Keystone, CO
- *2005, BIOS Conference, Philadelphia, PA
- *2005, Eicosanoids Conference, San Francisco, CA
- *2005, Immunology Conference, Buffalo, NY
- 2006, Keystone Conference, Vancouver, BC
- 2006, American Association for Cancer Research, Maui, HI
- *2006, Eicosanoid Conference, Baltimore, MD
- 2006, BIOS Conference, Chicago, IL
- *2006, American Association of Immunologists, Boston, MA
- *2006, Eye Diseases Conference, UCLA Los Angeles, CA (Invited Speaker and Workshop Chairman)
- *2006, Western New York Bioscience Summit, Rochester, NY
- *2007, American Association for Cancer Research, Kona, HI
- 2007, BIOS Conference, Boston, MA
- *2007, International Conference, Bioactive Lipids in Cancer, Inflammation and Related Diseases, Montreal, Canada

- *2008, Wound Healing Society,
- *2008, Eicosanoid Conference, Baltimore, MD
- *2008, FASEB, SanDiego, CA

ADMINISTRATIVE ACTIVITIES/PROFESSIONAL EXPERIENCE

EDITORIAL BOARDS

Editorial Board, *PPAR Research*, 2007-present
Associate Editor/Reviewer for 'Cutting Edge' Articles, *Journal of Immunology*, 1995-2000.
Associate Editor, *Journal of Immunology*, 1990-1994.
Editorial Board, *Clinical Immunology*, 1991-present.
Guest Editor, *Regional Immunology*, 1992-1993.
Editor, CRC Press, *Pulmonary Fibroblast Heterogeneity*, 1990-1992.
Editorial Board, *Regional Immunology*, 1991-1997.
Editor, Academic Press, *ImmunoMethods*, Prostaglandin regulation of the immune response. 1992-1994.
Ad Hoc Reviewer for *Journal of Leukocyte Biology*, *Journal of Immunological Methods*, *Journal of Aerosol Medicine*, *International Journal of Radiation Oncology, Biology and Physics*, *Metabolism-Clinical and Experimental*, *Prostaglandins*, *Lipids*, *Journal of Clinical Investigation*, *American J. of Pathology*, *PNAS*, *Trends in Immunology*, *Journal of Biological Chemistry*, *Journal of Immunology*

STUDY SECTIONS

Ad Hoc consultant for Tumor Microenvironment (TME) Study Section NIH, 2007-present
Ad Hoc consultant for Transplantation, Tolerance, and Tumor Immunology, Study Section NIH, 2005.
Reviewer for Diabetes, United Kingdom, 2005-present.
Reviewer for the Strong Children's Research Center, 1994-present.
Reviewer for Cancer Center Discovery Fund, 1997-present
Ad Hoc consultant for the National Heart Lung Blood Institute, 2000-present
Reviewer – South Plains Foundation 2004-present
Ad Hoc Reviewer for: NIDCR/NIH, 2004-present
Member; Dean's Committee on Internal Research Proposals 2004 –present
Ad Hoc Reviewer for: Veterans Administration, American Cancer Society, 1994-present.
Ad Hoc consultant for Immunological Sciences Study Section, 2002-2004.
Consultant for the National Institute of Dental Research-Intramural Program, 1997
Ad Hoc consultant for the Lung Biology and Pathology NIH Study Section, 1997.
Reviewer for the International Science Foundation, 1993-1996.
Ad Hoc consultant for The Immunobiology NIH Study Section, 1994-1995.
Ad Hoc consultant for The Radiation Study Section, NIH, 1992-1993.
Member; Research Grant Review Committee, American Heart Association, 1990-1993.
Member; Biomedical Science Grant Review Committee, National Arthritis Foundation, 1989-1990.
Member; Committee on Research and Development, National Arthritis Foundation, 1986-1988.
Member; Medical and Scientific Committee, Genesee Valley Arthritis Foundation, 1983-1990.
Member; Grant Review Committee, Genesee Valley Arthritis Foundation, 1983-1990.

MEETING/WORKSHOP CHAIRMAN

Workshop Chairman: International Reticuloendothelial Society Symposium "Antigen presenting cells",
Richmond, VA, 1987.
Session Chairman: Lake Ontario Immunology Conference, Rochester, NY, 1987.

Workshop Co-Chairman: UCLA Symposia: Immunogenicity, Steamboat Springs, CO, 1989.
Panelist: International Meeting of The Society for Aerosols in Medicine, Rochester, NY, 1990.
International Program Committee: International Conference on Eicosanoids, Radiation Injury and Cancer, 1993-present.
Minisymposia organizer: International Conference on Eicosanoids, Radiation Injury and Cancer, 1996-present.
Workshop Chair, Fourth International Congress on Essential Fatty Acids and Eicosanoids, Edinburgh, Scotland, 1997.
Reviewer for New York Academy of Sciences Conference on Lipids, 1999.
Session Chair, URCC Cancer Center Symposia, 1999.
Workshop/Minisymposia Chair on inflammation, FASEB, 2001.
Panelist, International Graves' Ophthalmopathy Conference, 2001.
Panelist, NIAID/NIH Workshop on Radiation Terrorism, 2004.
Panelist, University of Rochester Conference on Disaster Medicine, 2004.
Panelist/Discussant, Buffalo Conference on Immunology, 2005.
Workshop/Discussion Leader, EPA Conference, 2005
Symposia Co-Chair, Eicosanoids Conference, Baltimore, MD, 2006
Workshop Chair, Graves' Disease International Symposium, Jules Stein Eye Institute, Los Angeles, CA, 2006.

ADMINISTRATIVE DUTIES

Co-Director, Integrated Health Sciences Facility Core (NIEHS/EHSC) 2007-present.
Planning Director: Integrative Health Science Facility Core (NIEHS/EHSC): 2006-2007
Search Committee for Endocrinology Unit Chief, 2007-present
Director, Toxicology Seminar Course (Tox 558) 2006-2007
University Committee on Proteomics 2006-present
University Committee on Flow Cytometry, 2005-present
Johnson and Johnson/University of Rochester Pilot Project Review Team 2005-2007.
Planning and Design Committee – New University of Rochester Eye Institute Building: 2003-2007
Medical Center Committee on Faculty Teaching Awards, 2004-present.
Chair, Search Committee for Faculty Recruits – Lung Biology and Disease Program, 2001-present.
Director: Lung Biology and Diseases Program, 2001-present.
Executive Committee, Pulmonary Biology Training Program, 2000-present.
Consultant to search committee for new chief of Pulmonary and Critical Care-2005-2006
Departmental Promotion and Tenure Committee, 1992-present.
Member Faculty Promotion Committee – Dept. of Obstetrics/Gynecology, 2003 - present
Member Search Committee – Dept. of Obstetrics/Gynecology Faculty Recruitment, 2003-2004.
Executive Committee Immunology Training Grant, 1992-2004, 2006-present.
Dean's Committee on Sabbatical Leave, 2003-2004
University Committee on Animal Resources, 2000-2003.
Dean's Committee on Animal Resources, 2001-2003.
Cancer Center Membership Committee Chair, 1997-1998, 2001-2003.
Planning/Design Committee MRBX (U of R) 2000-2002.
Arthur Kornberg Research Award Committee, 1999-2001.

Graduate Education Committee, Department of Microbiology and Immunology, University of Rochester, 1985-1986, 1988-1989, 1991-2001.
Microbiology & Immunology/Vaccine Biology Applicant recruitment and Visit Day Committee, 1995-2001.
Ph.D. Qualifying Examination Committee, Immunology representative, Department of Microbiology and Immunology, University of Rochester, 1993-1995, 1995-2001, first alternate representative.
Co-Director Thoracic Oncology Program: University of Rochester Cancer Center, 1994-2000.
Member, Eastman Dental Center Human Subjects Institutional Review Board, 1995-1998.
Member, University of Rochester Faculty Senate, 1995-1998.
Davey Cancer Research Award Committee Chair, 1998.
Dean's Committee on the Faculty Incentive Plan, 1997-1998.
Cancer Center Symposia Committee, 1996-1997.
Member White Paper Committee, Department of Environmental Medicine, 1996-1997.
Ad Hoc Committee, Cancer Center Core Pathology Facility, 1996-1997.
Member, University of Rochester Research Policy Committee, 1993-1996.
University of Rochester Medical Center Strategic Planning Committee for Vaccine Biology/Immunology/Infectious Disease, 1996.
Advisory Member, Premier Medical Group (U.S.A.), Central Clinical Hospital (Moscow, Russia), 1993-1996.
Member search committee for new chief of Allergy, Clinical Immunology and Rheumatology, Department of Medicine, 1993-1995.
Cancer Center Construction Committee, University of Rochester, 1990-1993.
Admission Committee, Department of Microbiology and Immunology, University of Rochester, 1985-1986, 1988-1989.
Planning/Design Committee for Cancer Center Construction, University of Rochester, 1983-1987.
Seminar and Retreat Committee, Department of Microbiology and Immunology, University of Rochester, 1983-1986.
Medical Faculty Council, University of Rochester, 1986.

TEACHING EXPERIENCE

Toxicology – Lung Biology (Tox 522) 2002, 2003, 2004, 2005, 2006, 2007.

Toxicology (Tox 558) Course Director 2006-2007, Course Co-Director, 2008

Toxicology Retreat: Organizer for Grant Writing Session, 2002, 2003, 2004, 2005, 2006, 2007, 2008.

Advanced Topics in Virology Seminar (MBI 450), 2007.

Lecturer/Case Presenter, University of Rochester, MD/Ph.D. Students, 2003.

Immunology (MBI 473) University of Rochester School of Medicine, Spring 1984, Fall 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992 (course director), 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007.

Advanced Topics in Immunology (MBI 540) University of Rochester, School of Medicine, Spring 1984, 1985, 1986, 1988, 1997, course director 1997.

Immunology Research in Progress Series (MBI 580) Course Director, Fall, Spring 1987, 1988, 1989, 1993, 1994, 1995, 1996, 1999, 2000, 2001.

Lecturer: Pulmonary and Critical Care Medicine Colloquium-2000, 2001, 2002.

Cellular and Molecular Basis of Disease (Path 593), University of Rochester, Fall, 1996.

Introduction to Pathogenic Microbiology (MBI 218) University of Rochester, School of Medicine, Spring 1988, 1989, 1990. Director of Immunology Section.

Immunology Journal Club (MBI 580), Coordinator, 1990-1991, 1991-1992.

Microbiology and Immunology Student Seminar (MBI 501) Coordinator, 1991, 1992, 1993.

Mucosal Immunity (DEN 589) University of Rochester School of Medicine, Spring 1990.

Immunobiology (BMS 403) University of Rochester School of Medicine, 1985, 1986.

Immunotoxicology (ENV 492) University of Rochester School of Medicine, Fall 1984.

Medical Microbiology (MBI 510) Immunology Section, University of Rochester School of Medicine, Fall 1983.

Immunobiology, Division of Immunology, Duke University Medical Center, 1982, 1983.
Microbiology for Pharmacy Students, Department of Microbiology, Medical College of Virginia, Fall 1980.

Immunobiology Laboratory, Department. of Microbiology, Medical College of Virginia, Spring 1980.

RESEARCH TRAINEES

Present

Holly Hindman, M.D., Harvard University, Junior Faculty, 2007-present.

Simona Bancos, Ph.D., Academy of Sciences, Szeged, Hungary, Postdoctoral Fellow, 2007-present.

Naxin Guo, M.D./Ph.D., Akita University, Akita, Japan (Ph.D.) and China Medical University, Shenyang, China (M.D.) Postdoctoral Fellow, 2007-present

Lawrence Fialkow, D.O., University College of Osteopathic Medicine, Des Moines, Iowa, Postdoctoral Fellow, 2006-present

Geniece M. Lehmann, Ph.D., University of Rochester, Postdoctoral Fellow 2006-present.

Matthew Bernard, B.S., SUNY Genesee, Ph.D. Candidate, 2005-present

Jamie O'Brien, B.S., University of Rochester, Ph.D. Candidate, 2005-present

Tatiana Garcia, B.S., University of Colombia, Ph.D. Candidate, 2004-present

David McMillan, B.S., Vanderbilt University, Ph.D. Candidate, 2007-present

Kurt Bertram, M.S., Northeastern University, Ph.D. Candidate, 2007-present

Ajay Kuriyan, University of Rochester Medical Student, Independent Study, 2007-2008.

Current Position: Medical Student, University of Rochester

Jacqueline Gertz: Undergraduate, Independent Study, University of Rochester 2007-present.

Past

Shika Gupta, St. Bonaventure University, Summer Student, 2007.

Tracey Bielein, University of Michigan (undergraduate), Summer Student, 2007.

Current Position: University of Michigan (undergraduate), Summer Student, 2007.

Thomas Thatcher, Ph.D., University of Rochester, University of Rochester, Postdoctoral Fellow 2002-2007. *T. Thatcher was awarded a postdoctoral fellowship from the Philip Morris Foundation.

Current Position: Research Assistant Professor of Medicine

- Denise Ray, Ph.D. University of Rochester, 2004. Postdoctoral Fellow 2004-2006
Current Position: Senior Fellow, NIEHS
*Denise Ray won the Melville Hare Award for the best dissertation in Microbiology & Immunology, 2005
- TseYao Wang, B.S., National Chung-Hsing University, Masters Candidate 2005- 2006.
Current Position: Research Associate, University of Rochester
- Carolyn Baglole, Ph.D., University of Calgary, Alberta, Canada, Postdoctoral Fellow 2002-2006.
Current Position: Research Assistant Professor, Environmental Medicine, University of Rochester.
*C. Baglole was awarded a postdoctoral fellowship from the American Lung Association.
- Elizabeth Ryan, B.S., Bowling Green State, Ph.D. Candidate, 2002-2006.
Current Position: Research Assistant Professor, University of Colorado at Boulder
*Elizabeth Ryan won the M. Buonocore Award for Best Presentation Rochester Section of the AADR, 2004. *Elizabeth Ryan won an award for the best poster at the Cancer Center Retreat, 2004. *Elizabeth Ryan won the University of Rochester Graduate Student Society Merit Award. *Elizabeth Ryan won the award William F. Neuman Award for exemplary scholarship and citizenship, 2005. *Elizabeth Ryan won a Bristol-Meyers Squibb Co. Award for meritorious research projects, 2005. *Elizabeth Ryan won a travel award from the Society of Toxicology, 2006. *Elizabeth Ryan won the Drug Discovery Award Society of Toxicology.
- Sireesha Reddy, M.D., Columbia University, M.S. Candidate, 2000-2003.
Current Position: Assoc. Professor of OB/GYN, University of Rochester,
- Josue Padilla, D.D.S., University of Puerto Rico, M.S., Ph.D. Candidate and Periodontology Specialty Training, 1997-2004.,
Current Position: Clinical Asst. Professor of Periodontology, Eastman Dental Center, Private Practitioner, Periodontal Health.
- Julia Kaufman, B.S., SUNY Albany, Ph.D. Candidate, 1997-2004, Ph.D., 2004.
Current Position: Scientist, Rockefeller University.
- Timothy Barreiro, B.A., W VA Wesleyan College, DO., Ohio University College of Medicine, Pulmonary Fellow, 2002-2003.,
Current Position: Clinical Asst. Professor, Ohio State University
- Filiz Akbiyik, M.D., Ph.D., Hacettepe University, Ankara, Turkey, NATO Postdoctoral Fellow, 2003.
Current Position: Associate Professor of Medicine, Hacettepe University, Ankara, Turkey.
- Lisa Vanderlinde, M.D., University of Rochester, Postdoctoral fellow, 2001-2002.
Current Position: Asst. Professor UNC/Chapel Hill, NC.
- Christine Martey, Ph.D., Lehigh University, Postdoctoral fellow, 2001-2002.
Current Position: Assoc. Professor, Shippensburg State College
- Kate O'Reilly, M.D., McGill University. Postdoctoral fellow, 2000-2002.
Current Position: Sr. Lecturer, Southampton Univ. Medical School, England, UK
- Laura Koumas, B.S., Rutgers University, Ph.D. candidate, 1999-2002.
Current Position: Lecturer (Asst. Professor), University of Cyprus, Cyprus.
- Roger Smith, B.S. Eastern University, Ph.D. Candidate, 1995-2002, Ph.D. 2002.
Current Position: Sr. Postdoctoral Fellow, Harvard University, Cambridge, MA.
*Dr. Smith received the M.W. Hare and the W. Fenn awards for best Ph.D. dissertation-2002.
- Sarah Harris, B.S.: West Virginia University, Ph.D. Candidate, 1996-2001, Ph.D. 2001.
Current Position: Manager, Biogen-IDEc Pharmaceutical, San Diego, CA.
- Beth Graf, B.S., SUNY Geneseo, M.S. Candidate, 1999-2001, M.S. 2001.
Current Position: Technical Associate, University of Rochester.
- Chantal Turner, University of Vermont, M.S. Candidate, 1999-2001, M.S. 2001.
Current Position: Technical Associate, University of Connecticut.
- Edward Leung, Ph.D., Postdoctoral fellow, 1999-2001.
Current Position: Sr. Scientist, Bausch & Lomb
- Kuljeet Kaur, Ph.D., University of Bombay, Postdoctoral fellow, 1996-1998.
Current Position, Research Associate Professor, University of Miami.

- Ying Zhang, Ph.D., SUNY Syracuse, Postdoctoral Fellow, 1996-1998.
Current Position: Senior Scientist, Wyeth Pharmaceuticals, Pearl River, NY.
- Adnan Adawi, M.D., Sackler School of Medicine, Pulmonary Fellow, 1995-1998.
Current Position: Private Practice, South Carolina.
- Gregory Sempowski, B.S., Syracuse University, Ph.D. Candidate 1992-1997, Ph.D. 1997.
Current Position: Associate Professor, Duke University, Durham, NC.
*Dr. Sempowski received the M.W. Hare award for best Ph.D. dissertation-1997.
- Melinda Borrello, B.S. University of Rochester, Ph.D. Candidate 1991-1996, Ph.D. 1996.
Current Position: Director of Cellular Immunology-Vaccinex Corp, Rochester, NY.
- Eric Fedyk, B.S. Allegheny College, Ph.D. Candidate 1991-1996, Ph.D. 1996.
Current Position: Director of Immunotoxicology, Millenium Pharmaceuticals, Boston MA.
*Dr. Fedyk received the M.W. Hare award for best Ph.D. dissertation-1996.
- Alicia Linares, B.S. University of Rochester, M.S. Candidate, 1994-1995. M.S. 1995.
Current Position: Ph.D. student, University of Colorado-Denver, CO.
- Kristin Fries, Ph.D., University of Rochester, Postdoctoral Fellow, 1992-1994.
Current Position: Associate Professor of Chemistry, Damon College, Buffalo, NY.
- John Roper, B.S. Allegheny College, M.S. Candidate, 1993-1994. M.S. 1994.
Current Position: Medical Technology Instructor, Pittsburgh, PA.
- Maria Silvera, B.S. University of Rochester, Ph.D. Candidate, 1989-1994. Ph.D. 1994.
Current Position: Clinical Professor, University of Arizona.
- Deborah Brown, B.S. SUNY Geneseo, M.S. Candidate 1992-1994. M.S. 1994.
Current Position: Postdoctoral Fellow, Trudeau Institute, Saranac Lake, NY.
- Rachel Roper, B.S. Texas A&M University, Ph.D. candidate 1987-1992, Ph.D. 1992.
Current Position: Associate Professor, East Carolina School of Medicine.
*Dr. Roper received the M.W. Hare award for best Ph.D. dissertation-1992.
- Helena Watts, M.D. Harvard University, Postdoctoral Fellow 1990-1992.
Current Position: Chief Pulmonologist, St. Agnes Hospital, Baltimore, MD.
Clinical Associate Professor, University of Maryland Medical Ctr, Baltimore, MD.
- Sidney Stein, D.M.D. Washington University, Ph.D. Candidate 1986-1991, Ph.D. 1991.
Current Position: Associate Professor of Periodontology and Oral Biology
University of Tennessee, Memphis, TN.
- Michael Froncek, B.S. University of Rochester, M.S. Candidate 1990-1991, M.S. 1991.
Current Position: Rheumatologist, Gastonia, NC
- Stephen Derdak, D.O. Texas College of Medicine, Postdoctoral Fellow, 1988-1989.
Current Position: Professor and Director of Pulmonary and Critical Care Medicine Wilford Hall
Air Force Medical Center, San Antonio, TX.
- Victoria Schad, B.S. William Smith College, Ph.D. Candidate 1984-1989, Ph.D. 1989.
Current Position: Senior Scientist, Biotransplant Inc. Charlestown, MA.
- Clare Baecher, B.S. Hamilton College, M.S. Candidate 1985-1987, M.S. 1987.
Current Position: Research Associate Professor, Boston University, Boston, MA.
- S. Sadegh-Nasseri, Ph.D. University of California, Los Angeles, Postdoctoral Fellow 1984-1986,
Current Position: Associate Professor, Johns Hopkins School of Medicine, Baltimore., MD.
- Michael Spaulding, B.S. Notre Dame University, M.S. Candidate 1985-1987, M.S. 1987.
Current Position: Physician, University of Pittsburgh Medical Center, Pittsburgh, PA.
- David Lee, B.S. University of Rochester, undergraduate senior thesis, 1987-1988.
Current Position: Pharmacist, Buffalo, NY.
- Karl Illig, B.S. Harvard University, undergraduate independent research 1983-1984.
Current Position: Associate Professor of Surgery, University of Rochester, Rochester, NY.
- Karim Bhimani, B.S. University of Rochester, undergraduate independent research 1983-1984.
Current Position: Research Associate, Sloan-Kettering Institute for Cancer Research, New
York, NY.

Ph.D. THESIS COMMITTEES (CURRENT)

Matthew Bernard	Lai, Jiann-Jyh	Tam Quach	Kurt Bertram
Elizabeth Wilson	Vanessa Morales	Sam Caito	
Tatiana Garcia	Jamie O'Brien	David McMillan	

MS thesis committees: None at present.

Faculty mentor for Junior Clinical faculty

Dr. Steven Cook, Pediatrics, 2006-present
 Dr. Katherine Schaefer, Medicine, 2005-present
 Dr. Sherry Spinelli, Pathology, 2005-present
 Dr. Elizabeth Ryan, Cancer Center, 2006-2007
 Dr. Patricia Sime, Medicine 1999-2006
 Dr. Sireesha Reddy, Obstetrics and Gynecology 2000-2004
 Dr. Arnolando Arbino, Pathology, 2002-2003
 Dr. Gloria Pryhuber, Pediatrics 1998-2001
 Dr. Patricia Chess, Pediatrics, 1997-2000
 Dr. Carl D'Angio, Pediatrics 1997-2000

Ph.D. AND *M.S. THESIS COMMITTEES (PAST)

Victoria Schad	Virginia Winn	David O'Brien	*Michael Spaulding
Jacquelin Chase	Leonard Dragone	Lambert Liou	*Deborah Brown
John Cogswell	Sidney Stein	Chandra Louise	*Anne Koninski
Rachel Roper	Laura Haynes	Ravi Patil	*John Ripper
Clare Baecher	Joel Dopp	Alex McAdam	*Mark Tran
Maria Silvera	Luc Joseph	Gary Brenner	*Alicia Linares
Greg Sempowski	Melinda Borrello	Eric Fedyk	*Ray Michalowski
Julie Ostberg	Roger Hawks	*Regina Harley	*Kristin Heers
Branda Hu	Ping Xing	Regis O'Keefe	Frank Murante
Stephanos Kyrkanides	Tom Thatcher	Minh Doan Nguyen	Sarah Harris
*Beth Graf	*Chantal Turner	Roger Smith	Mary Maida
Tracey Callahan	Laura Koumas	Lisa Flick	Josue Padilla
Sang Li	Denise Ray	Julia Kaufman	Sireesha Reddy
*TseYao Wang	Elizabeth Ryan	David Farrer	Yuri Shapolov
Nipa Mody			

PRESENTATIONS AT MEETINGS FROM PREDOCTORAL STUDENTS AND POSTDOCTORAL FELLOWS * oral presentation

- 1985 FASEB, St Louis, MO.
- 1986 Sixth International Congress of Immunology, Toronto, Canada.
- *1987 International Reticuloendothelial Society Symposia, Richmond, VA.
- 1987 FASEB, Washington, D.C.
- *1988 Lake Ontario Immunology Society, Rochester, NY.
- *1988 International Association for Dental Research, Montreal, Canada.
- *1989 American College of Physicians-USA Society of Physicians, Bethesda, MD.
- *1989 UCLA Symposia: Immunogenicity, Steamboat Springs, CO.
- 1989 American Thoracic Society, Cincinnati, OH.
- *1989 American Association of Dental Research, San Francisco, CA.
- *1989 7th International Congress of Immunology, West Berlin, Germany.
- *1989 American Association of Dental Research, Niagara Falls, NY.

- 1990 Miami Biotechnology Winter Symposia, Miami, FL.
- *1990 International. Association of Dental Research, Cincinnati, OH.
- *1990 Dentist-Scientist Conference, NIDR, Bethesda, MD.
- 1990 International Meeting of the Society for Aerosols in Medicine, Rochester, NY.
- *1990 World Conference on Lung Health, Boston, MA.
- *1990 Texas Society for Thoracic Medicine, San Antonio, TX.
- *1990 Scientific Assembly - American Society of Chest Physicians, Toronto, Canada.
- *1990 Eighth International Conference on Periodontal Research, San Antonio, TX.
- 1990 Lake Ontario Immunology Society, Geneva, NY.
- *1991 International Conference on Periodontal Disease, San Antonio, TX.
- 1991 Midwinter Conference of Immunologists, Asilomar, CA.
- 1991 UCLA Symposia, Cytokines and their Receptors, Keystone, CO.
- 1992 Midwinter Conference of Immunologists, Asilomar, CA.
- *1992 American Lung Association/American Thoracic Society Intl Conference, Miami, FL.
- 1992 Eighth International Conference on Prostaglandins and Leukotrienes, Montreal, Canada.
- *1992 International Immunology Congress, Budapest, Hungary.
- 1993 AAI-CIS Immunology Conference, Denver, CO.
- 1994 Conference on Inflammation, Tamaron, CO.
- *1994 American Thoracic Society/Lung Conference, Boston, MA.
- *1994 American Association of Immunologists/FASEB, San Francisco, CA.
- *1995 International Immunology Congress, San Francisco, CA.
- 1996 American Thoracic Society/Lung Conference, San Francisco, CA.
- 1996 American Association of Dental Research, San Francisco, CA.
- *1997 Keystone Symposia on B Lymphocyte Biology, Steamboat Springs, CO.
- 1997 American Association of Dental Research, Orlando, FL.
- 1997 International Conference of Eicosanoids and Cancer and Inflammation, LaJolla, CA.
- 1998 American Society for Microbiology, CA.
- 1999 Cancer Center Symposia.
- 1999 International Conference on Eicosanoids and Lysophospholipids, New York, NY.
- 2000 Intl Conf on Eicosanoids, Boston MA.
- *2001 FASEB.
- *2001 International Conference on Dental Research.
- 2001 Keystone Conference on Apoptosis.
- 2001 Keystone Conference on Prostanoids and PPARgs.
- 2001 Society for Gynecologic Investigation.
- *2001 International Conference on Eicosanoids.
- *2002 International Society for Gynecologic Investigation.
- *2003 NIH Workshop on Endometriosis/Pelvic Pain
- *2003 Keystone Conference on PPARgs
- 2004 Keystone Conference on Lymphocyte Activation, Steamboat Springs, CO
- 2004 FASEB, Washington, D.C.
- 2004 AADR, Rochester, N.Y.
- 2005 Keystone Conference on PPARgs, Whistler, British Columbia
- *2005 9th International Conference on Eicosanoids
- 2006 Keystone Conference on Eicosanoids in Inflammation, Park City, Utah
- *2006 Society of Toxicology, San Diego, CA
- 2006 Eicosanoid Conference, Baltimore, MD
- 2006 American Thoracic Society, San Francisco, CA
- 2007 Keystone Conference on Biology of B Cells in Health and Disease, Banff, Alberta
- *2007 American Association of Dental Research, Rochester, NY
- 2007 American Thoracic Society, San Francisco, CA
- *2008 Society of Toxicology, Seattle Washington
- *2008 FASEB, San Diego, CA

GRANTS AWARDED**A. CURRENT RESEARCH SUPPORT**

<u>Funding Organization/ Type of Grant</u>	<u>Title</u>	<u>Total Direct Costs and Dates of Award</u>
NIDCR R01 DE011390-20 R. Phipps, PI	Regulation of Immunity by Prostaglandins	\$1,200,000 8/05-7/10
NEIHS R01 EY017123 R. Phipps, PI	Role of T Cells and PPARgamma in Graves' Orbital Fibroblasts Adipogenesis	\$750,000 09/06-08/11
NHLBI R21 HL086367 R. Phipps PI	Normal and Type-2 Diabetic Platelet Proteomics and Storage for Transfusion	\$275,000 09/06-08/08
NEIHS R01 EY11708-12 T. Smith, PI R. Phipps, Co-PI	Functional Diversity of Orbital Fibroblasts Subcontract to R. Phipps	\$1,250,000 4/07-3/12
NIEHS ES001247 T. Gasiewicz, PI R. Phipps, Investigator, plus access to Center Core Facilities and Programs	NIEHS Center Grant: Environmental Agents as Modulators of Disease Processes	\$ 5,416,323 3/05-2/10
NHLBI R01 HL78604 R. Phipps, PI	Platelet Activation and Inflammatory Mediators	\$800,000 9/04-08/08
NIAID R21 AI071064 R. Phipps, PI	Role of Cyclooxygenase-2 in Antibody Responses to Vaccination	\$275,000 09/07-09/09
NIH R01 HL088325 P. Sime, PI R. Phipps, Investigator	Role of the Aryl Hydrocarbon Receptor in Lung Inflammation	\$1,250,000 12/07-11/12
Bausch and Lomb External Research Program R. Phipps, Program Director	Model Systems for Studying Human Ocular Fibroblasts: Inflammation and Scarring	\$450,000 10/06-09/11
Leukemia & Lymphoma Society S. Bernstein, PI R. Phipps, Co-PI	Targeting the PPARgamma Pathway as a Novel Therapeutic Approach for non-Hodgkin's Lymphoma	\$540,000 10/05-9/08
Lymphoma Research Foundation S. Bernstein, PI R. Phipps, Co-PI	Triterpenoids as Novel Therapeutic Agents for the Treatment of Mantle Cell Lymphoma	\$502,854 05/07-04/10

NHLBI R01HL75432 P. Sime, PI R. Phipps, Investigator	Modulation of Silica-Induced Pulmonary Fibrosis	\$1,250,000 8/05-7/10
NEIHS R01 EY015836 K. Huxlin, PI R. Phipps, Investigator	Corneal Wound Healing: Ocular Optics After Laser Surgery	\$1,250,000 7/04-6/09
NASA/Batelle/PNNL J. Z. Hu, PI R. Phipps, Co-PI	“Early Detection of Inflammatory Responses and the Subsequent Health Outcomes Due to High LET Particle Radiation: An Integrated Metabolomics Study” Subcontract to R. Phipps	\$300,000 11/07-12/08
NIAID R01 NS054578 S. Maggirwar, PI R. Phipps, Investigator	Inflammatory Mechanisms Associated with HIV-1 Dementia	\$1,100,000 12/05-11/10
EPA Center Grant R827354 G. Oberdörster, PI R. Phipps, Core Director	Ultrafine Particle Characterization: Pathophysiological Mechanisms Vascular & Inflammation Core	\$311,460 (core only) 10/05-9/10
Parker B. Francis Fellowship Award R. Phipps, Sponsor C. Baglolle, Awardee	The Aryl Hydrocarbon Receptor Regulates Cigarette Smoke-Induced Pulmonary Inflammation in a RelB- Dependent Mechanism	\$144,000 07/07-06/10
PhrMA Foundation Grant R. Phipps, Sponsor J. O’Brien, Awardee	Use of Small Electrophilic Prostaglandins to Enhance Platelet Production	\$40,000 01/08-12/10

B. PENDING GRANT SUPPORT

NIAID RC-1 R. Phipps, PI	Electrophilic Small Molecules Enhance Platelet Regeneration After Radiation	\$1,000,000 07/08-12/09
-----------------------------	---	----------------------------

C. CURRENT TRAINING GRANT SUPPORT

NIEHS T32-ES07026 N. Ballatori, PI R. Phipps, Pre and Postdoctoral trainer	Training in Toxicology (renewal is likely, score of 143)	\$1,230,890 7/03-06/08
NHLBI-T32-HL66988 M. Frampton/R. Phipps Co-PIs	Multidisciplinary Training in Pulmonary Research	\$2,064,450 09/06-08/11
NIH-T32-AI072855 E. Lord, PI R. Phipps: Pre and Postdoctoral Trainer	Pre-and Postdoctoral Training Program in Immunology	\$1,200,000 09/07-08/12

NIGMS T32 GM007356 C. O'Banion, PI R.P. Phipps, PI	Medical Scientists Training Program	\$1,500,906 7/06-6/09
NIH T32HL007152-31 C. Francis, PI R. Phipps, Pre and Postdoctoral Trainer	Graduate Training Program in Hematology Research	\$1,423,705 7/07-06/12
NIH T32 DE007202-17A1 R. Quivey, PI R. Phipps, Pre and Postdoctoral Trainer	Training Program in Oral Science	\$3,932,654 08/07-07/12

D. PREVIOUS RESEARCH GRANTS (R. Phipps is the P.I. unless otherwise noted)

<u>Funding Organization and Type of Grant</u>	<u>Grant Title</u>	<u>Direct Costs & Dates of Award</u>
American Cancer Society: Institutional Research Award	Conversion of a Tolerogenic Signal to an Immune One. 1984	\$ 4,000
NIH: Biomedical Research Support Grant	Isolation of Autoreactive B cells.	\$ 9,633 1985
United Cancer Council:	Conversion of a Tolerogenic to an Immunogenic Signal by Accessory Cells.	\$ 7,826 1985-1986
NIH: Biomedical Research Support Grant	Accessory Cell Presentation of Immune Complexes.	\$ 9,633 1986
United Way	Activation and Regulation of Autoreactive B Cells	\$ 7,826 1986-1987
Genesee Valley Arthritis Foundation	Activation of Nucleic Acid Specific B Cells	\$ 7,826 12/87-12/88
NCI/RO1 CA-42739 (01-03) This project was renewed for the 04-08 years.	Accessory Cell Modulation of B Cell Tolerance and Triggering.	\$ 228,255 3/86-2/89
NIH: Biomedical Research Support Grant	Collagen Synthesis by subsets of Lung Fibroblasts.	\$ 9,440 1/89-12/89
Genesee Valley Arthritis R. Phipps/J. Looney Co-PI	Synovial Fibroblast Subsets	\$ 9,000 1990-1991

NHLBI/RO1 HL-39949 D. Penney, PI R. Phipps, Investigator	Fibroblast Involvement in Developing Pulmonary Fibrosis	\$ 592,346 9/87-7/92
NIDR/RO1 CA-42739 (09-12) This project was renewed for the 13-17 years.	Accessory Cell Modulation of B cell Tolerance and Triggering	\$ 495,000 3/89-8/94
NCI/RO1 CA-42739 (04-08) This project was renewed for the 09-12 years.	Accessory Cell Modulation of B cell Tolerance and Triggering	\$ 495,000 3/89-8/94
NCI/RO1 CA-55305 (01-04) R. Phipps, PI	Radiation-Induced Cytokine Synthesis and Lung Fibrosis	\$ 319,093 8/91-7/95
ES01247-Pilot Project	Functional Significance of CD40 on Lung Fibroblasts	\$ 18,350 4/94-3/95
NIDR/RO3 DE-11047 T. Blieden, PI R. Phipps, Co-PI	Periodontal Fibroblast Heterogeneity	\$ 50,000 5/94-4/96
Pepper Center R. Phipps, PI	The Role of IL-6 in the Development of Lung Fibrosis	\$ 10,000 7/95-6/96
Bristol-Myers Squibb R. Phipps, PI	Novel Therapies for Acute Lung Injury	\$ 60,754 4/96-4/97
Strong Children's Research Fund J. Palis, PI R. Phipps, Co-PI	Biphenotypic B/macrophage Cells	\$ 5,000 7/96-6/97
Univ. of Rochester Cancer Center R. Barth PI R. Phipps Co-PI	Role of CD40/CD40 ligand in chemotherapy induced lung injury	\$ 15,000 7/96-6/97
Rochester Area Pepper Center R. Phipps, PI	Fibroblast Activation Antigens	\$ 5,000 1/97-6/97
NCI/CA-11198 G. Abraham, PI R. Phipps-Thoracic Oncology Program Co-Leader plus access to Cancer Center Core Facilities and Programs	Cancer Center Core Grant	\$ 2,271,518 5/95-4/98
Cystic Fibrosis Foundation R. Phipps, PI B. Iglewski, Co-PI	Chronic lung inflammation and the Pseudomonas autoinducer	\$ 100,000 9/97-8/99
Cancer Center Discovery Fund	Prostanoids and Chronic Lymphocytic Leukemia	\$ 15,000 1/98-1/99
Burroughs Wellcome Foundation R. Phipps, PI	Sabbatical/visiting Professor	\$ 11,500 1/99-12/99

Cancer Center Discovery Fund R. Phipps, PI	Lung Fibrosis	\$ 30,000 12/99-11/00
NIEHS-Pilot project R. Phipps, PI	Lung Fibrosis and toxicants	\$ 25,000 1/00-1/01
Genetics Institute R. Phipps, PI	IL-13 and lung injury	\$ 26,000 11/00-10/01
NHLBI/NIA R01 R. Barth, PI R. Phipps, Investigator	Genes controlling chemotherapy induced lung fibrosis	\$ 591,584 11/98-10/01
NIEHS R01 EY11708-01 T. Smith PI R. Phipps, Co-PI	Functional diversity of orbital fibroblasts Subcontract to R. Phipps	\$60,000 5/97-4/02
NHLBI R01-HL 56002-05 R. Phipps, PI	Role of CD40 in lung inflammation & fibrosis	\$ 550,938 9/97-8/02
EPA-Pilot Project R. Phipps, PI	Platelet CD40L and fibroblast activation	\$ 15,000 6/01-7/02
NIH/NCI/CERRIS program P. Okunieff, PI R. Phipps, Investigator	Radiation induced cellular injury	\$ 2,184,370 8/98-7/02
Endometriosis Association R. Phipps, PI	Activation of Endometriosis Fibroblasts by the CD40/CD40L System	\$45,000 7/02-6/03
Cystic Fibrosis Foundation R. Phipps, PI	The Pseudomonas autoinducer and lung inflammation	\$ 180,000 1/00-12/03
University of Rochester Cancer Center N. Blumberg/R. Phipps Co-PIs	Consequences of platelet CD40L transfusion to adult myeloid myeloid leukemia patients	\$ 25,000 7/02-6/03
Schering-Plough Research Institute	Neutrophil Mediated Lung Injury And Cigarette Smoking	\$80,000 7/02-12/03
University of Rochester Howard Hughes Pilot Funding S. Feldon/R. Phipps Co-PIs	Studies on Graves' Ophthalmopathy	\$25,000 2003-2004
Wyman-Potter Foundation	Unrestricted Equipment Grant for Lung Biology	\$40,000 2004
NIDCR/R01 DE011390 R. Phipps PI	Regulation of Immunity by Prostaglandins	\$964,719 7/99-6/05

Philip Morris Foundation R. Phipps, PI	Smoking related toxicants: Induction of Cox-2 and enhancement of pulmonary inflammation and asthma	\$ 558,831 11/01-4/05
Philip Morris External Research Program R. Phipps, PI	Cigarette smoke induction of the cyclooxygenase and Prostaglandin pathway: Implications for lung inflammation and cancer	\$620,000 9/03-8/06
American Lung Association Postdoctoral Fellowship R. Phipps, Sponsor C. Baglolle, Awardee	Cigarette smoke-induced human lung fibroblast activation: implications for inflammation and cancer	\$65,000 7/04-6/06
Philip Morris External Research Program Postdoctoral Fellowship R. Phipps, Sponsor T. Thatcher, Awardee	The AHR pathway and chronic lung inflammation	\$90,000 3/05-2/07
NEI R03 EY014564 S. Feldon, PI R. Phipps, Investigator	A novel in vitro model of thyroid ophthalmopathy	\$300,000 4/03-03/07
NIEHS R01 EY11708-06-10 T. Smith, PI R. Phipps, Co-PI	Functional diversity of orbital fibroblasts Subcontract to R. Phipps	\$ 1,382,289 4/02-3/07 \$65,000/yr
Philip Morris External Research Program I. Rahman, PI R. Phipps, Investigator	Molecular Mechanisms of Cigarette Smoke-Mediated Pro-Inflammatory Cytokines and Mediators	\$625,321 7/04-6/07
Philip Morris External Research Program I. Rahman, PI R. Phipps, Investigator	Role of VEGF and its Receptor KDR in Cigarette Smoke-Mediated Endothelial Cell Dysfunction	\$630,810 9/05-08/08

E. OTHER GRANTS PREVIOUSLY AWARDED (Phipps is PI unless otherwise noted)

NIH: Predoctoral Fellowship (Medical College of Virginia)	Pre and Postdoctoral Training Grant in Infectious Disease	\$ 3,900/yr. 1977-1979
NIH: Predoctoral Fellowship (Medical College of Virginia)	Pre and Postdoctoral Training Grant in Cancer Etiology and	\$ 3900/yr. 1979-1980 Treatment
NIH: Postdoctoral Fellowship (Duke University)	Pre and Postdoctoral Training Grant in Immunogenetics	\$ 14,000/yr. 1980-1981

Arthritis Foundation: Fellowship	Role of Accessory Cells In Growth, Triggering and Tolerance Induction of Hapten-Specific B Cells.	\$ 36,000 1981-1983
Arthritis Foundation: Investigatorship	Role of Accessory Cells in Modulating B cell Triggering and Tolerance.	\$ 69,000 1984-1987
NCI: Construction Grant 3-C06-CA 37558 R. Cooper P.I	Cancer Center Construction Grant. (for the Immunology Unit).	\$ 1,400,000 1984-1986
Arthritis Foundation/ Merck, Sharp, and Dohme	Travel Award to The American Rheumatism Association National Meeting to give a presentation.	\$ 800 1986
National Institute of Arthritis Travel Award	Molecular Biological Approaches to Rheumatic Diseases	\$ 500 1986
DuPont-American College of Chest Physicians S. Derdak P.I. R. Phipps, sponsor	Research-Scholar Award American College of Chest Physicians	\$1,000 1990

PATENTS AWARDED

US 6,395,282 B1
05/28/02

Immunologic Conjugates of Gram-Negative
Bacterial Autoinducer Molecules

US 6,713,059 B2
03/30/04

Antibodies raised against immunogenic conjugates of
gram-negative bacterial autoinducer molecules.

US 6,958,219 B2
10/25/05

Method for detecting a gram-negative bacterial
autoinducer molecule.

BIBLIOGRAPHY

n.b. Authors denoted by a () are students or postdocs who have trained or are currently training in my laboratory.*

1. **Phipps RP**, Tew JG, Miller GA, Mandel TE: A murine model for analysis of spontaneous induction and feedback regulation of specific antibody synthesis. *Immunolo. Commun.*, 9: 55-70, 1980.
2. Tew JG, **Phipps RP**, Mandel TE: Role of follicular antigen binding dendritic reticular cells in the regulation of humoral antibody responses. *Immunol. Reviews*, 53: 175-201, 1980.
3. Mandel TE, **Phipps RP**, Tew JG: Antigen localization and retention on the follicular antigen binding dendritic reticular cell. *Immunol. Reviews*, 53: 29-59, 1980.
4. **Phipps RP**, Mitchell GF, Mandel TE, Tew JG: Antibody isotype-mediated antigen retention in passively immunized mice. *Immunol.*, 40: 459, 1980.
5. **Phipps RP**, Mandel TE, Tew JG: Effect of immunosuppressive agents on antigen retention in lymphoid organs and collagenous tissues of actively immunized mice. *Cell. Immunol.*, 57: 505-526, 1981.
6. Mandel TE, **Phipps RP**, Abbot A, Tew JG: Long term antigen retention by dendritic cells in the popliteal lymph nodes of immunized mice. *Immunol.*, 43: 353-362, 1981.
7. Tew JG and **Phipps RP**: Cyclic antibody production: Role of follicular antigen retaining dendritic cells and antibody feedback regulation. In: "Regulation of Immune Response Dynamics: (Ed. C. DeLisi and J. Hiernaux) Vol. I. pp. 27-42, 1982.
8. **Phipps RP** and Scott DW: A novel role for macrophages: The ability of macrophages to tolerize B cells. *J. Immunol.*, 131: 2122-2127, 1983.
9. **Phipps RP**, Mande, TE, Tew JG, Schnizlein CT: Induction of antibody synthesis by antigen retained on follicular dendritic cells from cyclophosphamide treated mice. *Immunol.*, 51: 387-397, 1984.
10. **Phipps RP** and Scott DW: Function of IgD in B cell triggering and tolerance. *Surveys of Immunol. Research*, 3: 195-197, 1984.
11. **Phipps RP**, Pillai PS, Scott DW: Conversion of a tolerogenic to an immunogenic signal by a lymphoid dendritic cell-like tumor line. *J. Immunol.*, 132: 2273-2278, 1984.
12. Tew JG, **Phipps RP**, Szaka A, Mande TE: Tissue localization and retention of antigen in relation to the immune response. *A. J. Anatomy*, 170: 407-420, 1984.

13. Tew JG and **Phipps RP**: Immune functions of dendritic type cells. In: "The Reticuloendothelial System, A Comprehensive Treatise", Vol. 6, pp. 67-81, 1984.
14. **Phipps RP**, Szakos J, Illig K*: A novel method for the isolation of autoreactive B cells. *J Immunol Methods*, 88: 163-170, 1986.
15. Cogswell, J*, **Phipps RP**, and Scott DW: A lymphoid dendritic-like tumor, P388AD.2, acts as a novel immunogenic carrier for haptens. *J Immunol*, 137: 777-783, 1986.
16. **Phipps RP** and Schad V*: Differential presentation of immunoglobulin-tolerogen and immune complexes by macrophages and lymphoid dendritic cells. *Progress in Leukocyte Biology*, 7: 29-40, 1987.
17. **Phipps RP**, Illig K*, Schad V*, Bhimani K*: Differential presentation of tolerogenic immunoglobulin *in vivo* by macrophages and by a lymphoid dendritic-cell-like tumor line. *J Leuk Biol*, 43: 271-278, 1988.
18. **Phipps RP**, Spaulding M*, Szakos J: DNA is a potent immunogen for spleen cells and for guanosine-binding B lymphocytes. *Cell Immunol*, 113: 202-213, 1988.
19. Sadegh-Nasseri S* and **Phipps RP**: Immunogenic presentation of an immunoglobulin 'tolerogen' requires Interleukin-2. *Eur J Immunol*, 18: 417-423, 1988.
20. Cogswell J*, **Phipps RP**, Scott DW: Critical role for Ia expression and interleukin 1 production in delivering an immunogenic signal by hapten-modified accessory cell-like tumor lines. *Cell Immunol*, 114: 55-70, 1988.
21. Schad V* and **Phipps RP**: Two signals are required for splenic accessory cells to induce B cell unresponsiveness: Tolerogenic immunoglobulin and prostaglandin. *J. Immunol.*, 141: 79-84, 1988.
22. Quill H., Gaur, A, **Phipps RP**: Prostaglandin E₂-dependent induction of granulocyte-macrophage colony stimulating factor secretion by cloned murine helper T cells. *J. Immunol.*, 142: 813-818, 1989.
23. **Phipps RP**, Penney DP, Keng P, Quill H, Paxhia, A, Derdak, S*, Felch ME: Characterization of two major populations of lung fibroblasts: Distinguishing morphology and discordant display of Thy-1 and class II MHC. *Am J Respir Cell Mol Biol*, 1: 65-74, 1989.
This research was highlighted in the Am. Rev. Respir. Dis. (140:4, 1989), and was selected for promotional material and for the cover of the premier issue of the Am. J. Respir. Cell Molec. Biol.
24. **Phipps RP**, Lee D*, Schad V*, Warner G: E-series prostaglandins are potent growth-inhibitors for B lymphomas. *Eur J Immunol*, 19: 995-1001, 1989.
25. **Phipps RP**: Strategies for the isolation of antigen-specific B lymphocytes. In: *Reviews on Immunoassay Technology*. Vol. 3. (Ed. S.B. Pal), pp 1-16, 1989.
26. Schad V* and **Phipps RP**: Prostaglandin E₂-dependent induction of B cell unresponsiveness: Role of Surface Ig and Fc Receptors. *J Immunol*, 143: 2127-2132, 1989.

27. Quill H, Gaur A, Brown D, **Phipps RP**: Synergistic activation of granulocyte-macrophage colony-stimulating factor production by IL-1 and IL-2 in murine Th1 and Th2 clones. *J Immunol.*, 143: 2242-2247, 1989.
28. **Phipps RP**, Roper R*, Stein SH*: Alternative antigen presentation pathways: Accessory cells which down-regulate immune responses. *Reg Immunol*, 2: 326-339, 1990.
29. Stein S* and **Phipps RP**: Macrophage secreted prostaglandin-E₂ promotes immune complex-induced B cell unresponsiveness. *Eur J Immunol*, 20: 403-407, 1990.
30. **Phipps RP**, Baecher C*, Frelinger J, Keng P, Penney DP, Brown D*: Tumor necrosis factor alpha induces IL-1 alpha synthesis by Thy-1⁺, but not Thy-1⁻ lung fibroblasts. *Eur J Immunol*, 20: 1723-1727, 1990.
31. Roper R*, Conrad D, Brown D*, Warner G, **Phipps RP**: Prostaglandin E₂ promotes IL-4 induced IgE and IgG₁ synthesis. *J Immunol*, 145: 2644-2651, 1990.
32. **Phipps RP**, Roper R*, Stein SH*: Accessory cell modulation of B cell tolerance and triggering. *Immunol Rev*, 117: 135-158, 1990.
33. **Phipps RP**, Penney DP, Keng PC, Silvera M*, Harkins S*, and Derdak S*: Immune functions of subpopulations of lung fibroblasts. *Immunol Res*, 9: 275-286, 1990.
34. Warheit, DB, Crandall E, Gillett N, and **Phipps RP**, Pinkerton K: Particle-cell Interactions in lung: Cytology. *J. Aerosol Med.*, 3: 57-60, 1990.
35. Derdak S*, Watts H*, Dixon P, Penney DP, and **Phipps RP**: CD4 expression in lung fibroblasts. *Lancet*, 337: 374, 1991.
36. Stein S* and **Phipps RP**: Elevated levels of intracellular cAMP sensitize resting B lymphocytes to immune complex induced unresponsiveness. *Eur J Immunol*, 21: 313-318, 1991.
37. Silvera M*, Derdak S*, Penney D, and **Phipps RP**: Effects of proinflammatory interleukin-1 on subsets of lung fibroblasts. *Life Sci Adv Immunol*, 10: 21-28, 1991.
38. **Phipps RP**, Stein S*, and Roper R*: A new view of prostaglandin E regulation of the immune response. *Immunol Today*, 12: 349-352, 1991.
39. Stein SH* and **Phipps RP**: Antigen-specific IgG_{2a} production in response to prostaglandin E₂, immune complexes and gamma-interferon. *J of Immunol.*, 147: 2500-2506, 1991.
40. Ales-Martinez J, Scott DW, **Phipps RP**, Casnelli JE, Kroemer G, Pezzi L, and Martinez AC: Cross-linking of surface IgM or IgD causes differential biological effects in spite of overlap in tyrosine-(de)phosphorylation profile. *Eur J Immunol* 22: 845-850, 1992.
41. Froncek M*, Derdak S*, Felch ME, Silvera M*, Watts H* and **Phipps RP**: Cellular and Molecular Characterization of Thy-1⁺ and Thy-1⁻ murine lung fibroblasts. In: *Pulmonary Fibroblast Heterogeneity*, R.P. Phipps, Ed. CRC Press, 135-198, 1992.
42. Penney DP, **Phipps RP**, Keng PC, Maltby K: Morphologic characteristics of pulmonary fibroblast heterogeneity. In: *Pulmonary Fibroblast Heterogeneity*, R.P. Phipps Ed. CRC Press, 199-228, 1992.

43. Penney DP, Keng P, **Phipps RP**: Morphologic and functional characterization of subpopulations of murine lung fibroblasts grown *in vitro*. *Anat Rec*, 232: 432-443 1992.
44. Brown D*, Warner G, Ales-Martinez J, Scott DW, **Phipps RP**: Prostaglandin E₂ induces apoptosis in immature normal and malignant B cells. *Clin Immunol Immunopathol*, 63: 221-229, 1992.
45. Stein SH* and **Phipps RP**: Anti-class II antibodies potentiate IgG_{2a} production by LPS-stimulated B lymphocytes treated with prostaglandin E₂ and γ -interferon. *J Immunol*, 148: 3943-3949, 1992.
46. Derdak S*, Keng P, Penney DP, and **Phipps RP**: Collagen synthesis by subpopulations of murine pulmonary fibroblasts. *Am J Physiol* 263: Lung Cell Mol Physiol, 7: 283-290, 1992.
47. Roper RL* and **Phipps RP**: Prostaglandin E₂ and cAMP inhibit B lymphocyte activation and simultaneously promote IgE and IgG₁ synthesis. *J. Immunol.*, 149: 2984-2991, 1992.
48. Felch M, Willis RA*, Penney DP, Keng PC, and **Phipps RP**: Expression of alpha-6-beta-1 integrin, the laminin receptor, on subsets of normal murine lung fibroblasts and its upregulation by the inflammatory cytokines IFN γ and TNF α . *Reg Immunol*, 4: 363-370, 1992.
49. Silvera M*, Watts H*, Sempowski G*, and **Phipps RP**: Lung Fibroblast Heterogeneity. *J Aerosol Medicine*, 6: 1-21, 1993.
50. Borrello M*, Brown D*, Fedyk E*, and **Phipps, RP**: Strategies for studying the regulation of B lymphocytes by prostaglandin E₂. *ImmunoMethods*, 2: 261-272, 1993.
51. **Phipps RP**: Editorial: Prostaglandins and prostaglandin receptor-mediated regulation of the immune response. *ImmunoMethods*, 2: 185-186, 1993.
52. Stein-Streilein, J and **Phipps RP**: Editorial: Cytokine networks and pulmonary immunology. *Reg Immunol*, 5: 127-133, 1993.
53. Fedyk E*, Brown, D*, Borrello M* , and **Phipps RP**: Role of immune complexes, Fc receptors and prostaglandin E₂ in B cell triggering and tolerance. *Chem Immunol* 58: 67-91, 1994.
54. Roper R* and **Phipps RP**: Prostaglandin E₂ Regulation of the immune response. *Adv Prostaglandin Thromboxane and Leukot Res*, 22: 101-112, 1994.
55. Sempowski GD*, Beckmann MP, Derdak, SD, and **Phipps RP**: Subsets of murine lung fibroblasts express membrane-bound and soluble interleukin-4 receptors: Role of interleukin-4 in enhancing fibroblast proliferation and collagen synthesis. *J Immunol*, 152: 3606-3614, 1994.
56. Roper R*, Ludlow J, and **Phipps RP**: Requirement for protein synthesis for prostaglandin E₂ regulation of B lymphocyte activation: PGE₂ inducible regulatory proteins. *Cell Immunol*, 154: 296-308, 1994.
57. Willis RA*, Nussler A, Fries K, Geller D. and **Phipps RP**: Induction of nitric oxide synthase in mouse pulmonary fibroblast subsets: nitric oxide regulates IL-6. *Clin Immunol Immunopathol*, 71: 231-239, 1994.

58. Scott DW and **Phipps RP**: Cellular aspects of immunity and their control. In: Hematology, Basic Principles and Practice. E. Benz, H. Cohen, et al. Eds. Churchill-Livingston Publishers, New York, pp. 169-178, 1994.
59. Fries K*, Blieden T, Looney R, Sempowski G*, Silvera M*, Willis R, and **Phipps RP**: Fibroblast Heterogeneity. *Clin Immunol Immunopathol*, 72: 283-292, 1994.
60. Fedyk E* and **Phipps RP**: Control of B cell activation and differentiation by 5-lipoxygenase products and reactive oxygen intermediates. *Int J Immunopharmacol.*, 16: 533-546, 1994.
61. Fries K*, Felch M and **Phipps RP**: Murine lung fibroblast subsets use interleukin-6 as an autocrine growth factor. *Am J Respir Cell Mol Biol*, 11: 552-560, 1994.
62. Brown DM* and **Phipps RP**: Prostaglandin E₂-mediated apoptosis in subsets of malignant B lymphoma cells. In: Eicosanoids and other Bioactive Lipids in Cancer, Inflammation and Radiation Injury. K.V. Honn, Ed., Kluwer Academic Publishing, 1994.
63. Silvera M*, Sempowski GD*, and **Phipps RP**: Expression of TGFβ isoforms by Thy-1⁺ and Thy-1⁻ pulmonary fibroblast subsets: Evidence for TGFβ as a regulator of IL-1-dependent stimulation of IL-6. *Lymphokine Cytokine Res*, 13: 277-285, 1994.
64. Silvera M* and **Phipps RP**: Synthesis of interleukin 1 receptor antagonist by Thy 1⁺ and Thy 1⁻ lung fibroblast subsets. *J Interferon Cytokine Res*, 15: 63-70, 1995.
65. Brown D* and **Phipps RP**: Characterization of PGE₂ receptors on normal and malignant B lymphocytes. *Adv. in Prostaglandin, Thromboxane and Leukotriene Research*, Raven Press, NY, U.S.A., 123: 299-301, 1995.
66. Keng P, **Phipps RP**, and Penney DP: In vitro radiation sensitivity of mouse lung fibroblast subsets isolated by flow cytometry. *Intl J Rad Onc Biol Phys*, 31: 519-523, 1995.
67. Sempowski GD*, Blieden T, Borrello MB*, Looney JR, and **Phipps RP**: Fibroblast Heterogeneity in the Healing Wound. *Wound Repair and Regeneration*, 3: 120-131, 1995.
68. Brown D* and **Phipps RP**: Characterization of PGE₂ receptors on normal and malignant B lymphocytes. *Cell Immunol*, 161: 79-87, 1995.
69. Roper R*, Brown D*, and **Phipps RP**: Prostaglandin E₂ promotes B lymphocyte immunoglobulin isotype switching to IgE. *J Immunol*, 154: 162-170, 1995.
70. Fries K*, Gaspari A. Blieden T, Looney RJ, and **Phipps RP**: CD40 expression by human fibroblasts. *Clin Immunol Immunopathol*, 77: 42-51, 1995.
71. Smith TJ, Sempowski G*, Wang H, Del Vecchio, PJ, Lippe SD, and **Phipps RP**: Evidence for cellular heterogeneity in primary cultures of human orbital fibroblasts. *J Clin Endocrinol Metab*, 80: 2620-2625, 1995.
72. Borrello M* and **Phipps RP**: Fibroblasts support outgrowth of splenocytes simultaneously expressing B lymphocyte and macrophage characteristics. *J Immunol*, 155:4155-4161, 1995.

73. Roper RL* and **Phipps RP**: Prostaglandin E₂ and Immunity: intracellular cAMP and PGE-inducible regulatory proteins. In: The immune consequences of trauma, shock and sepsis, mechanisms and therapeutic approaches. Vol. I, E. Faist, Ed. pp.107-116, Pabst. 1996.
74. Fedyk E*, Ripper J*, and **Phipps RP**: A molecular analysis of PGE receptor (EP) expression on normal and transformed B lymphocytes: Co-expression of EP1, EP2 and EP3 β . *Mole Immunol*, 33: 33-45, 1996.
75. Sempowski G*, Derdak S*, and **Phipps RP**: IL-4 and interferon gamma discordantly regulate collagen production by functionally distinct lung fibroblast subsets. *J Cell Physiol*, 167: 290-296, 1996.
76. Barth, RK, Baecher C, Linares A*, Suchkova VN, Sukhikh G, Kogan E, and **Phipps RP**: Fibroblast heterogeneity; lung inflammation and fibrosis. *Adv. in Structural Biology*, S.K. Malhotra, Ed. JAI Press, Greenwich, CT, 4: 175-196, 1996.
77. Fedyk E*, Looney J, Adawi A*, and **Phipps RP**: Regulation of IgE and cytokine by cAMP: implications for B2-agonist treatment of extrinsic asthma. Invited review. *Clini Immunol Immunopathol*, 81: 101-113, 1996.
78. Gaspari A, Sempowski G*, Chess P, Gish J, and **Phipps RP**: Normal human epidermal keratinocytes express functional CD40 that costimulates T lymphocyte proliferation. *Eur J Immunol.*, 26: 1371-1377, 1996.
79. Brown D* and **Phipps RP**: BCL2 expression inhibits PGE₂ mediated apoptosis in B cell lymphomas. *J. Immunol.*, 157: 1359-1370, 1996.
80. Borrello M* and **Phipps RP**: The B/macrophage cell: an elusive link between CD5⁺ B lymphocytes and macrophages. *Immunol. Today*, 17: 471-475, 1996.
81. Fedyk E* and **Phipps RP**: Prostaglandin E₂ receptors of the EP2 and EP4 subtypes regulate activation and differentiation of mouse B lymphocytes to IgE secreting cells. *Proc. Natl. Acad. Sci. USA*, 93: 10978-10983, 1996.
82. Borrello M* and **Phipps RP**: Differential Thy 1 expression by splenic fibroblasts defines functionally distinct subsets. *Cell Immunol.*, 173: 198-206, 1996.
83. Dragone L, Ostburg J, and **Phipps RP**, Frelinger GJ: Regulation of B cells and immunoglobulin production in leukosialin (CD43) transgenic mice. *J. Immunol.*, 157: 4876-4884, 1996.
84. **Phipps RP**, Borrello M*, and Blieden T Fibroblast heterogeneity in the periodontium and other tissues. *J. Periodontal Research*, 32: 159-65 1997.
85. Sempowski G*, Chess P, Padilla J*, Moretti A, and **Phipps RP**: CD40 mediated activation of gingival and periodontal ligament fibroblasts. *J. Periodontol.*, 68: 284-292, 1997.
86. Sempowski G*, Chess P, and **Phipps RP**: CD40 is a functional activation antigen and B7-independent T cell costimulatory molecule on normal human lung fibroblasts. *J. of Immunol.*, 158: 4670-4677, 1997.

87. Ostburg J, **Phipps RP**, Barth RK, and Frelinger, G.J.: Expression of mouse CD43 in the B cell lineage of transgenic mice causes impaired immune responses to T independent antigens. *Eur J Immunol*, 9: 2152-2159, 1997.
88. Smith R*, Smith TJ, and **Phipps RP**: Commentary: Fibroblasts as sentinel cells: Synthesis of chemokines and regulation of inflammation. *Am J Pathol*, 151: 317-322, 1997.
89. Smith T, Sempowski G*, Bernson C, Cao H, Wang HS, and **Phipps RP**: Human thyroid fibroblasts exhibit a distinctive phenotype in culture.: Characteristic ganglioside production and functional CD40 expression. *Endocrinology*, 138: 5576-5588, 1997.
90. Fedyk E., Brown D*, and **Phipps RP**: PGE₂ regulation of B lymphocytes and T helper 1 and T helper 2 cells: Induction of inflammatory vs. allergic responses. In: *Eicosanoids and other bioactive lipids in cancer, inflammation and radiation injury*, 2. K.V. Honn *et al.* Eds. Plenum Publishing Corp. New York. pp. 565-570, 1998.
91. Fedyk E* and **Phipps RP**: PGE₂ receptors of the EP2 and EP4 subtype regulate B lymphocyte activation and differentiation to IgE secreting cells. In: *Recent Advances in Prostaglandin, Thromboxane and Leukotriene Research*. H. Sinzinger *et al.*, Eds. Plenum Press, New York. pp. 153-157, 1998.
92. Zhang Y*, Cao J, Graf B*, Meekins H, Smith, TJ, and **Phipps RP**: CD40 engagement up-regulates cyclooxygenase-2 expression and prostaglandin E₂ production in human lung fibroblasts. *Cutting Edge Section of the J Immunol*, 160: 1053-1057, 1998.
93. Adawi A*, Zhang Y*, Baggs R, Finkelstein J, and **Phipps RP**: Disruption of the CD40-CD40 ligand system prevents an oxygen-induced respiratory distress syndrome. *Short Communication: Am J Pathol*, 152: 651-657, 1998.
94. Sempowski G*, Rozenblit J*, Smith T, and **Phipps RP**: Human orbital fibroblasts are activated through CD40 to induce proinflammatory cytokine production. *Am J Physiol*, 274: C707-C714, 1998.
95. Fedyk E*, Harris S*, Padilla J*, and **Phipps RP**: Prostaglandin E₂ control of Th1 and Th2 immune responses. Raven Press, 1998.
96. Harris S*, Graf B*, Kaur K*, Nazarenko D*, Padilla J*, and **Phipps, R.P.**: Prostaglandins as modulators of lymphocyte mediated inflammatory and humoral responses. *Proc. 4th Intl. Congress on Essential Fatty Acids and Eicosanoids*. American Oil Chemists' Society Press, 1998.
97. Kaur K*, Harris S*, Padilla J*, and **Phipps RP**: Prostaglandin E₂ regulation of Th1 and Th2 cytokines and humoral responses. Raven Press, 1998.
98. Adawi A*, Zhang Y*, Baggs R, Williams J, Rubin P, Finkelstein J, and **Phipps RP**: Blockade of CD40-CD40 ligand interactions protects against radiation-induced pulmonary inflammation and fibrosis. *Clini Immunol Immunopathol*, 89: 222-230, 1998.
99. Cao J, Meekins H, Zhang, Y*, **Phipps RP**, and Smith T: Activation of human orbital fibroblasts through CD40 engagement results in a dramatic induction of hyaluronin synthesis and prostaglandin endoperoxide H synthase-2 expression: insights into potential pathogenic mechanisms of thyroid associated ophthalmopathy. *J Biol Chem*, 273: 29615-29625, 1998.

100. Smith TJ, Sciaky D, **Phipps RP**, and Jennings T: CD40 expression in human thyroid tissue: evidence for involvement of multiple cell types in autoimmune and neoplastic diseases. *Thyroid*, 9: 749-755, 1999.
101. Borrello M* and **Phipps RP**: Fibroblast secreted macrophage colony stimulating factor is responsible for generation of biphenotypic B/Macrophage cells from a subset of mouse B lymphocytes. *J. Immunol.*, 163: 3605-3611, 1999.
102. Graf B*, Nazarenko D*, Borrello M*, Roberts J, Morrow J, and **Phipps RP**: Biphenotypic B/macrophage cells express Cox-1 and upregulate Cox-2 expression and PGE₂ production in response to proinflammatory signals. *Eur J Immunol*, 29: 3793-3803, 1999.
103. Pryhuber G, O'Brien D, Baggs R, **Phipps RP**, Huyck H, Peschon J, and Nahm M: Ablation of tumor necrosis factor receptor Type 1 (p55) alters oxygen induced lung injury, *Am J Physiol Lung Cell Mol Physiol*, 278: L1082-L1090, 2000.
104. Harris SG* and **Phipps RP**: Peroxisome Proliferator-Activated Receptor Gamma (PPAR- γ) activation in naive mouse T cells induces cell death. In: *Lysophospholipids and Eicosanoids in Biology and Pathophysiology*, Eds, E. Goetzl and K. Lynch. *An NY Acad Sciences*, 905: 297-300, 2000.
105. Padilla J*, Kaur K*, and **Phipps RP**: Effects of 15-d-PGJ₂ on B lineage cells. In: *Lysophospholipids and Eicosanoids in Biology and Pathophysiology*, Eds, E. Goetzl and K. Lynch. *Annals New York Acad. Sciences*, 905: 322-325, 2000.
106. Graf BA*, Nazarenko DA*, Borello MA*, Roberts LJ, Morrow JD, and **Phipps, RP**: Proinflammatory signals upregulate COX-2 and increase PGE₂ production in biphenotypic B/Macrophage cells. In: *Lysophospholipids and Eicosanoids in Biology and Pathophysiology*, Eds, E. Goetzl and K. Lynch. *Annals New York Acad. Sciences*, 905: 294-296, 2000.
107. Padilla J*, Kaur K*, Harris S*, and **Phipps RP**: PPARgamma mediated regulation of normal and malignant B lineage cells. In: *Lysophospholipids and Eicosanoids in Biology and Pathophysiology*, Eds, E. Goetzl and K. Lynch. *Annals New York Acad. Sciences*, 905: 97-109, 2000.
108. **Phipps RP**: Atherosclerosis: The emerging role of inflammation and the CD40-CD40 ligand system. *Proc. National.Acad. Sci. USA*. 97: 6930-6932, 2000.
109. **Phipps RP**, Pollock SJ, Kaur K*, Kaufman J*, Borello M*, Graf B*, Nazarenko D*, Roberts LJ, Morrow JD, Palis J, Ryan D, and Bennett JM: Expression of Cyclooxygenase-2 and Prostaglandins by B1 Cells and B-CLL Cells. *Curr Top Microbiol Immunol: B1 Lymphocytes in B Cell Neoplasia*, M. Potter (ed.), Vol. 252, pp. 293-300, 2000.
110. Padilla J*, Kaur K*, Cao HJ, Smith TJ, **Phipps RP**: Peroxisome Proliferator Activator Receptor- γ Agonists and 15-Deoxy- $\Delta^{12,14}$ -PGJ₂ Induce apoptosis in Normal and Malignant B-Lineage Cells. *J. Immunol.*, 165: 6941-6948, 2000.
111. Borrello M*, Palis J, and **Phipps RP**: The relationship of CD5+ B lymphocytes to macrophages: insights from normal biphenotypic B/macrophage cells. *International Rev Immunol*, 20: 137-155, 2001.
112. King A, Kelly R, Critchley H, Malmstrom A, Sennstrom M, and **Phipps RP**: CD40 expression in uterine tissues: A key regulator of cytokine expression by fibroblasts. *J Clin Endocrinol Metab*, 86: 405-412, 2001.

113. Smith R*, Fedyk E*, Springer TA, Iglewski B and **Phipps RP**: IL-8 production in human lung fibroblasts and epithelial cells activated by the Pseudomonas autoinducer N-3-oxododecanoyl homoserine lactone is transcriptionally activated by NFκB and AP-2. *J Immunol* 167: 366-374, 2001.
114. Fedyk E*, Jones D, Critchley H, **Phipps RP**, Blieden T, and Springer T: Expression of stromal derived factor-1 is decreased by IL-1 and TNF and in dermal wound healing. *J. Immunol.*, 166: 5749-5755, 2001.
115. Harris S* and **Phipps RP**: The nuclear receptor PPAR gamma is expressed by mouse T lymphocytes and PPAR gamma agonists induce apoptosis. *Eur J Immunol.*, 31: 1098-1105, 2001.
116. **Phipps RP**, Kaufman J*, and Blumberg N: Platelet derived CD154 (CD40L) and transfusion reactions. *Lancet*, 357: 2023-2024, 2001.
117. **Phipps RP**, Koumas L*, Leung E*, Reddy S*, Blieden T, and Kaufman J*: The CD40-CD40 ligand system: A potential therapeutic target in atherosclerosis. *Curr Opin Investig Drugs*, 2: 773-777, 2001.
118. Koumas L*, King A, Critchley H, Kelly R, and **Phipps RP**: Fibroblast heterogeneity: Existence of functionally distinct Thy-1+ and Thy-1- human female reproductive tract fibroblasts. *Am J Pathol*, 159: 925-935, 2001.
119. Kaufman J*, Graf B*, Leung E*, Pollock S, Koumas L*, Reddy S*, Blieden T, Smith T, and **Phipps RP**: Fibroblasts as sentinel cells: Role of the CD40-CD40 ligand system in fibroblast activation and lung inflammation and fibrosis. *Chest* 120: 53-55, 2001.
120. Koumas L*, Smith TJ, and **Phipps RP**: Fibroblast subsets in the human orbit: Thy-1⁺ and Thy-1⁻ subpopulations exhibit distinct phenotypes. *Eur J Immunol* 32:447-485, 2002.
121. Padilla J*, Leung E*, and **Phipps RP**: PPARγ and 15-d-PGJ₂ induce human B lineage cell death. *Clin Immunol.*, 103:22-23, 2002.
122. Smith R*, Harris S*, and **Phipps RP**, Iglewski B: The Pseudomonas aeruginosa quorum-sensing molecule N-(3-oxododecanoyl) homoserine lactone contributes to virulence and induces inflammation in vivo. *J Bacteriol*, 184: 1132-1139, 2002.
123. Harris S G and **Phipps RP**: Prostaglandin D₂ its metabolite 15-d-PGJ₂, and peroxisome proliferator activated receptor-γ agonists induce apoptosis in transformed, but not normal, human T lineage cells. *Immunology*. 105 23-24, 2002.
124. Harris SG, Smith R S, and **Phipps RP**: 15-Deoxy- $\Delta^{12,14}$ -PGJ₂ Induced IL-8 Production in Human T Cells by a Mitogen-Activated Protein Kinase Pathway. *J Immunol*, 168: 1372-1379, 2002.
125. Smith TJ, Koumas L*, Gagnon A, Bell A, Sempowski GD*, **Phipps RP**, Sorisky A: Orbital fibroblast heterogeneity may determine the clinical presentation of thyroid-associated ophthalmopathy. *J Clin Endocrinol Metab*, 87: 385-392, 2002.
126. Koumas L* and **Phipps RP**: Differential COX localization and PG release in Thy-1⁺ and Thy-1⁻ human female reproductive tract fibroblasts. *Am J Physiol Cell Physiol.*, 283: C599-C608, 2002.

127. Smith RS*, Kelly R, Iglewski B, and **Phipps RP**: The Pseudomonas autoinducer 3O-C₁₂-HSL induces cyclooxygenase-2 and PGE₂ production in human lung fibroblasts: Implications for inflammation. *J Immunol* 169: 2636-2642, 2002.
128. Roper R*, Graf, B*, **Phipps RP**, PGE₂, and cAMP promote B lymphocyte class switching to IgG₁. *Immunol Lett*, 84(3): 191-198, 2002.
129. Harris S, Padilla J, Koumas L, Ray D, **Phipps RP**: Prostaglandins as modulators of immunity. *Trends Immunol*, 23(3): 144-150, 2002.
130. Harris SG*, **Phipps RP**: Induction of apoptosis in mouse T cells upon peroxisome proliferator-activated receptor gamma (PPAR-gamma) binding. *Adv Exp Med Biol*, 507: 421-425, 2002.
131. **Phipps RP**: Potential role for the CD40/CD40 ligand system in air pollution-induced atherosclerosis. *Proc. of Conference on air pollution and cardiovascular disease*, 2003.
132. Blumberg N, **Phipps RP**, KaufmanJ*, and Heal J: The causes and treatment of reactions to platelet transfusions. *Transfusion*, 43:291-292, 2003.
133. Koumas L*, Smith TJ, Feldon S, Blumberg N, and **Phipps RP**: Thy-1 expression in human fibroblast subsets defines myofibroblastic or lipofibroblastic phenotypes. *Am J Pathol*, 163:4 1291-1300, 2003.
134. Kaufman J*, Sime PJ, and **Phipps RP**: Expression of CD154 (CD40 Ligand) by human lung fibroblasts: differential regulation by IFN- γ and IL-13, and implications for fibrosis. *J Immunol*, 172: 1862-1871, 2004.
135. Nieves DS, **Phipps RP**, Pollock S, Ochs H, Scott G, Ryan C, Kobayashi I, Rossi T, and Goldsmith L: Dermatologic and immunologic findings in the immunodysregulation, polyendocrinopathy, enteropathy, x-linked syndrome (IPEX). *Arch Dermatol*, 140 466-472, 2004.
136. Baglole C*, **Phipps RP**, Purkerson J, and Sime PJ: Targeting the CD40-CD40 ligand system as therapeutic intervention for the treatment of atherosclerosis. *Trends in Atherosclerosis Research*, 81-87, 2004.
137. Turner CK*, Blieden TM, Smith TJ, Feldon S, Foster D, Sime P J, and **Phipps, RP**: A novel elispot method for adherent cells. *J Immunol Methods*, 291 (1-2) 63-70, 2004.
138. Akbiyik F*, Ray DM*, Gettings KF, Blumberg N, Francis CW, and **Phipps RP**: Human bone marrow megakaryocytes and platelets express PPAR α and PPAR β agonists blunt platelet release of CD40 ligand and thromboxanes. *Blood*, 104: 1361-1368, 2004.
139. **Phipps RP**, Ryan E*, and Bernstein SH: Editorial, Inhibition of cyclooxygenase-2: a new targeted therapy for B-cell lymphoma? In: *Leuk Res*, 28 (2): 109-111, 2004
140. Elder A, Gelein R, Finkelstein J, **Phipps RP**, Frampton M, Utell M, Topham D, Kittelson, D B, Watts W F, Hopke P, Jeong C H, Kim E, Liu W, Zhao W, Zhou L, Vincent, R., Kumarathasan P, and Oberdörster, G.: On-road exposure to highway aerosols to exposures of aged, compromised rats. *Inhalation Toxicology*. 16(suppl.1): 41-53, 2004.
141. Ray D*, Bernstein S, and **Phipps RP**: Human multiple myeloma cells express peroxisome proliferator-activated receptor γ and undergo apoptosis upon exposure to PPAR γ ligands. *Clini Immunol*, 113: 203-213, 2004.

142. Martey CA*, Pollock SJ, Turner CT*, O'Reilly K*, Baglole CJ*, **Phipps RP**, and Sime P: Cigarette smoke induced cyclooxygenase 2 and microsomal prostaglandin E2 synthase in human lung fibroblasts: Implication for lung inflammation and cancer. *Am J Physiol Lung*, 287 (5): L981-L991, 2004.
143. Ryan EP*, Pollock S, Murant TI, Bernstein SH, Felgar RE, **Phipps RP**: Activated human B lymphocytes express cyclooxygenase-2 and cyclooxygenase inhibitors attenuate antibody production. *J Immunol*, 174 (5) 2619-2626, 2005.
144. Ray D*, Akbiyik F*, Bernstein S, and **Phipps RP**: CD40 engagement prevents PPAR γ agonist-induced apoptosis of B lymphocytes and B lymphoma cells by an NF κ B dependent mechanism. *J Immunol*, 174 (7): 4060-4069, 2005.
145. Burgess HA, Daugherty LE, Thatcher TH*, Lakatos HF, Redonnet MR, **Phipps RP**, and Sime P J: PPAR γ agonists inhibit TGF- β induced pulmonary myofibroblast differentiation and collagen production: implications for lung fibrosis therapy. *Am J Physiol Lung Cell Mol Physiol*, 288: L1146-L1153, 2005.
146. O'Reilly KM*, **Phipps RP**, Thatcher TH*, Graf BA*, VanKirk J, and Sime PJ: Crystalline and amorphous silica differentially regulate the cyclooxygenase-prostaglandin pathway in pulmonary fibroblasts: implications for pulmonary fibrosis. *Am J Physiol Lung Cell Mol Physiol*, 288, L1010-1016, 2005.
147. **Phipps RP**, Beckett W, Kaufman J*, Martey C*, Sime, P J, and Thatcher T*: Anti-inflammatory therapies for lung injury. In: *Lung injury: Mechanisms, pathophysiology and therapy*. Notter, R., Finkelstein, J. and Holm, B. Eds., Taylor & Francis, Pp 573-616, 2005.
148. Thatcher TH*, McHugh NA, Egan RW Chapman RW, Hey JA, Turner, CK*, Redonnet, MR, Seweryniak KE, Sime PJ, and **Phipps RP**: Role of CXCR2 in Cigarette smoke induced lung inflammation. *Am J Physiol Lung Cell Mol Physiol*, 289 (2): L322-8, 2005.
149. Baglole CJ*, Reddy SY*, Pollock SJ, Feldon S, Sime PJ, Smith TJ, and **Phipps RP**: Isolation and phenotypic characterization of lung fibroblasts. In: *Methods in Molecular Medicine; Fibrosis Research: Methods and Protocols*; Editor: J.Vargas, D.A. Brenner, S.H. Phan, Humana Press, 2005.
150. Martey CA*, Baglole CJ*, Gasiewicz TA, Sime PJ, and **Phipps RP**: The aryl hydrocarbon receptor is a regulator of cigarette smoke induction of the cyclooxygenase and prostaglandin pathways in human lung fibroblasts. *Am J Physiol Lung Cell Mol Physiol*, 289: L391-L399, 2005.
151. Purkerson JM, Smith RS*, Pollock SJ, and **Phipps RP**: The TRAF6 binding domain of CD40 regulates cytokine production by human lung fibroblasts. *Eur J Immunol*, 35 (10): 2920-8, 2005.
152. Feldon SE, Park. DJJ, O'Loughlin CW, Nguyen VT, Landskroner-Eiger, Chang D, Thatcher TH*, and **Phipps RP** Autologous T-lymphocytes stimulate proliferation of orbital fibroblasts derived from patients with Graves' ophthalmopathy. *Invest Ophthalmol Vis Sci*, 46: 3913-3921, 2005.

153. Baglole CJ*, Bushinsky SM, Garcia TM*, Kode A, Rahman I, Sime PJ, and **Phipps RP**: Differential induction of apoptosis by cigarette smoke extract in primary human lung fibroblast strains: implications for emphysema. *Am J Physiol Lung Cell Mol Physiol*, 291: L19-L29, 2006.
154. Baglole CJ*, Smith TJ, Foster D, Sime PJ, Feldon S, and **Phipps RP**: Functional assessment of fibroblast heterogeneity by the cell-surface glycoprotein Thy-1. In: *Myofibroblasts*, Editor: G. Gabbiani, C. Chaponnier, A. Desmouliere., 2006.
155. Ryan EP*, Pollock SJ, Kaur K*, Felgar R, Bernstein S H, Chiorazzi, N., and **Phipps RP**: Constitutive and activation-inducible Cox-2 expression enhances survival of chronic Lymphocytic leukemia B cells. *Clini Immunol*, 120: 76-90, 2006.
156. Ray DM*, Spinelli SL*, O'Brien JJ*, Blumberg N, and **Phipps RP**: Platelets as a novel target for PPAR γ ligands: implications for inflammation, diabetes, and cardiovascular disease. *BioDrugs*, 20 (4): 231-41, 2006.
157. Baglole CJ*, Ray DM*, Bernstein SH, Feldon S, Smith TJ, Sime PJ, and **Phipps RP**: More than structural cells: Fibroblasts as creators and orchestrators of the tumor microenvironment. *Immunol Invest*, 35: 297-325, 2006.
158. Blumberg N, Gettings KF, Turner C*, Heal JM, and **Phipps RP**: An association of soluble CD40 ligand (CD154) with adverse reactions to platelet transfusions. *Transfusion*, 46 (10): 1813-21, 2006.
159. Feldon SE, O'Loughlin CW, Ray DM*, Landskroner-Eiger S, Seweryniak KE, and **Phipps RP**: Activated Human T lymphocytes express cyclooxygenase-2 and produce pro-adipogenic prostaglandins that drive human orbital fibroblast differentiation to adipocytes. *Am J Pathol*, 169(4): 1183-93, 2006.
160. Ray DM*, Morse KM, Hilchey SP, Garcia TM*, Felgar RE, Maggirwar SB, **Phipps RP**, and Bernstein, S.H.: The novel triterpenoid 2-cyano-3,12-dioxooleana-1,9-dien-28-oic acid (CDDO) induces apoptosis of human diffuse large B cell lymphoma cells through a peroxisome proliferator-activated receptor γ independent pathway which is enhanced by NF-kB inhibition. *Exp Hematol*, 34 (9): 1202-11, 2006.
161. Khan SY, Kelher MR, Heal JM, Blumberg N, Boshkov, LK, **Phipps RP**, Gettings KF, McLaughlin NJ, and Silliman CC: Soluble CD40 ligand accumulates in stored blood components, primes neutrophils through CD40, and is a potential cofactor in the development of transfusion-related acute lung injury, *Blood*, 108 (7): 2455-2461, 2006. *Note this article was highlighted in Blood by an editorial "Hot on the trail of TRALI", *Blood* 108 (7) 2136-2137, 2006.
162. Ray DM*, Akbiyik F*, and **Phipps RP**: The PPAR γ ligands 15d-PGJ₂ and ciglitazone induce human B lymphocyte and B cell lymphoma apoptosis by PPAR γ -independent mechanisms. *J Immunol*, 177: 5068-5076, 2006.
163. Ryan EP*, Malboeuf CM, Bernard M, Rose RC, and **Phipps RP**: Cyclooxygenase-2 inhibition attenuates antibody responses against human papilloma virus-like particles. *J of Immunol*, 177 (11) 7811-7819, 2006.

164. O'Brien JJ*, Ray DM*, Spinelli SL*, Blumberg N, Taubman MB, Francis CW, Wittlin, SD, and **Phipps RP**: The platelet as a therapeutic target for treating vascular diseases and the role of eicosanoid and synthetic PPAR γ ligands. *Prostaglandins other Lipid Mediat*, 82: 68-76, 2007.
165. Sui Z, Sniderhan, LF, Schifitto G, **Phipps, RP**, Gelbard, H.A., Dewhurst, S., and Maggirwar, S.B.: Functional synergy between CD40 ligand and HIV-1 tat contributes to inflammation: implications in HIV type 1 dementia. *J Immunol*, 178: 3226-3236, 2007.
166. Kaufman J*, Spinelli S*, Schultz E, Blumberg N, and **Phipps RP**: Release of biologically active CD154 during collection and storage of platelet concentrates prepared for transfusion. *J Thrombosis and Haemost*, 5(4): 788-96, 2007.
167. Thatcher TH, Maggirwar S, Baglole CJ, Lakatos HF, Gasiewicz TA, **Phipps RP**, and Sime PJ: Aryl hydrocarbon receptor deficient mice develop heightened inflammatory responses to cigarette smoke and endotoxin associated with rapid loss of the nuclear factor- $\kappa\beta$ component RelB. *Am J Pathol*, 170: 855-864, 2007.
168. Ruckerl R, **Phipps RP**, Schneider A, Frampton M, Cyrus J, Oberdorster G, Wichmann, HE, and Peters A: Ultrafine particles and platelets activation in patients with coronary heart disease – results from a prospective panel study. *Part Fibre Tox*, 4: 2007.
169. Foster D, Piekarczyk K, Murant T, LaPoint R, Haidaris C, and **Phipps RP**: Enhanced synthesis of proinflammatory cytokines by vulvar vestibular fibroblasts. *Am J Obstet Gynecol*, 196: 346.e1-346.e48, 2007.
170. Brookes PS, Morse KM, Ray DM*, Tompkins A, Young SM, Hilchey SP, Salim S, Konopleva M, Andreeff, M, **Phipps RP**, and Bernstein SH: The triterpenoid CDDO and its derivatives elicit human lymphoid cell apoptosis through a novel pathway involving the unregulated mitochondrial permeability transition pore. *Cancer Res*, 67 (4):1793-1802, 2007.
171. Mieszczanska H, Kaba NK, Francis CW, Gerich JE, Dodis R, Smith B, Schwarz KQ, **Phipps RP**, Smith BH, Lee M, Messing S, and Taubman MB: Effects of pioglitazone on fasting and postprandial levels of lipid and haemostatic variables in overweight nondiabetic patients with coronary artery disease. *J Thromb Haemost* 5(5): 942-9, 2007.
172. Lakatos HF, Thatcher TH, Kottmann RM, Garcia T*, **Phipps RP**, and Sime PJ: The role of PPAR γ s in lung fibrosis. *PPAR γ Research Article ID 71323*, 2007.
173. Bernard MP* and **Phipps RP**: CpG Oligodeoxynucleotides induce cyclooxygenase-2 in human B lymphocytes: implications for adjuvant activity and antibody production. *Clin Immunol*, 125 (2): 138-148., 2007. NOTE: An editorial accompanied this article.
174. Caito S, Yang SR, Kode A, Edirisinghe I, Rajendrasozhan S, **Phipps, RP** and Rahman I.: Rosiglitazone and 15-Deoxy- $\Delta^{12,14}$ -prostaglandin J₂, PPAR α , agonists, differentially regulate cigarette smoke-mediated pro-inflammatory cytokine release in a monocyte/macrophage cell line. *Antioxidant Redox Signaling*, 10 (2) 253-260, 2007.
175. Cholette JM, Blumberg N, **Phipps RP**, McDermott MP, Gettings KF, and Lerner NB: Developmental Changes in Soluble CD40 Ligand. *J Pediatr*, 152 (1): 50-54.e1, 2008.

176. Ryan EP*, Bushnell TP, Friedman AE, Rahman I, and **Phipps RP**: Cyclooxygenase-2 independent effects of cyclooxygenase-2 inhibitors on oxidative stress and intracellular glutathione content in normal and malignant human B cells. *Cancer Immunol Immunother*, 57 (3): 347-358, 2007 .
177. Hu JZ, Rommereim DN, Minard KR, Woodstock A, Harrer BJ, Wind RA, **Phipps RP**, and Sime PJ: Metabolomics in lung inflammation: a high resolution ¹H NMR study of mice exposed to silica dust. *Toxicology Mechanisms and Methods*, In Press, 2008.
178. Feldon, S, and **Phipps RP**: Immunology of thyroid eye disease. In Press, 2008.
179. Lehmann GM*, Feldon SE, Smith TJ, and **Phipps RP**: Immune mechanisms in thyroid eye disease. *Thyroid*, In Press, 2008.
180. Spinelli SL*, O'Brien JJ*, Bancos S*, Lehmann GM*, Blumberg, N, Springer D, Francis CW, Taubman MB, **Phipps RP**: "The PPAR-platelet connection: Modulators of inflammation and potential cardiovascular effects", *PPAR Research*, In Press, 2008.
181. Ray DM*, Spinelli SL*, Pollock SJ, Murant TI, O'Brien JJ*, Blumberg N, Francis CW, Taubman, MB, and **Phipps RP**: Peroxisome Proliferator-Activated Receptor α and Retinoid X Receptor transcription factors are released from activated human platelets and shed in microparticles. *Thromb and Haemost*, 99 (1) 86-95, 2008.
182. Edirisinghe I, Yang SR, Yao H., Rajendrasozhan, Caito, S, Adenuga D, Wong C, Rahman A, **Phipps RP**, Jin ZG and Rahman I: VEGFR2 inhibition augments cigarette smoke-induced oxidative stress and inflammatory responses leading to endothelial dysfunction, *FASEB Journal*, In press, 2008.
183. Douglas RS, VanStensel L, Kamat S, **Phipps RP**, and Smith, TJ: Further characterization of Graves' orbital fibroblasts: functional implications of IGF-1 receptor display. Submitted, 2008.
184. Cholette JM, Rubenstein JS, Alfieris GM, Harmon, WG, Vermillion R, Blumberg N, and **Phipps RP**, Cable R, Gettings KF, and Eaton MP, Gangemi, J.J., Lerner, NB: Thrombosis in infants with signal ventricle physiology undergoing stage 1 surgical palliation. Submitted, 2008.
185. Baglole CJ*, Maggirwar SB, Gasiewicz TA, Thatcher TH, **Phipps RP**, and Sime PJ: The aryl hydrocarbon receptor attenuates tobacco smoke induced cyclooxygenase-2 and prostaglandin production in lung fibroblasts through regulation of the NF κ B family member relb. *J Biol Chem*, Submitted, 2008.
186. Thatcher TH, Potter RE, **Phipps RP**, and Sime PJ: High dose mainstream cigarette smoke suppresses allergic airway inflammation by inhibiting T cell function, while low dose smoke promotes allergic sensitization. *Am J Pathol*, In Revision, 2008.
187. Bernard MP, Bancos S, Bernstein SH, and **Phipps RP**: Targeting cyclooxygenase-2 in hematological malignancies: rationale and promise, *Curr Pharm Des*, In Process, 2008.
188. Garcia-Bates T, Simpson-Haidaris, Lehmann GM, and **Phipps RP**: PPAR α ligands in the treatment of hematological malignancies. *PPAR Research*, In Process, 2008.

Abstracts: More than 200 abstracts have been published.

RESEARCH INTERESTS

Role of Prostaglandins in B cell Biology and Immunity

Prostaglandins are lipid mediators produced by the action of the cyclooxygenase 1 and 2 enzymes on membrane-derived arachidonic acid. Specific cellular synthases (e.g. from macrophages and fibroblasts) cause the formation of key immuno-regulatory prostanoids including PGE₂ and PGD₂. Prostaglandins have both pro and anti-inflammatory properties that are poorly understood. The hypothesis this laboratory developed is that PGs of the E-series are not simply immuno-inhibitory agents, but rather are regulatory for normal B-lymphocytes. An emerging concept is that PGE₂ differentially regulates the immune response by preferentially enhancing certain antibody responses at the expense of inflammatory responses. This laboratory has published extensively on the ability of PGE₂ to stimulate, up to 26-fold, the production of IgE, which is responsible for allergic responses and for asthma. Clinically, concurrent high PGE₂ and elevated IgE levels occur in: Hyper IgE syndrome, AIDS, burn and trauma patients, and bone marrow/stem cell transplant patients. Our research has also shown that PGE₂ is capable of tipping the immunologic balance towards Th2 (type-2 allergic) cytokine responses and away from Th1 (type-1 cell mediated) responses. Thus PGE₂ promotes synthesis of the type 2 cytokines IL-4, IL-5 and IL-10 and inhibits the production of the type 1 cytokines IL-12 and IFN γ . Recently, a novel class of prostaglandin nuclear receptor was discovered called peroxisome proliferator activated receptor γ (PPAR γ). This receptor acts as a transcription factor controlling lipid metabolism in fat cells. This lab discovered that T and B-lymphocytes highly express PPAR γ and its activation by 15d-PGJ₂ (the natural PPAR γ ligand) induces apoptosis in B lineage cells (normal and malignant). Our data and that of other labs show that the PPAR γ system has immuno-inhibitory and possibly anti-inflammatory properties. Our current efforts focus on a molecular analysis of the PPAR γ receptor on B and T cells. By understanding how prostaglandins regulate elements of the immune response it may become possible to specifically regulate the immune system via easily synthesized lipid mediators.

Cellular and Molecular Characterization of Fibroblasts as Mediators of Acute and Chronic Lung Inflammation and Fibrosis

Injury to the lung from exposure to chemotherapeutic agents, ionizing radiation, tobacco smoke, or occupational hazards such as pesticides may lead to pulmonary fibrosis (scarring). The advanced stages of this disease are characterized by a fibroblast hyperplasia and by excessive accumulation of fibroblast-secreted connective tissue such as collagen. This laboratory is investigating the central role of the fibroblast in these processes and the mechanisms by which they activate and are activated by the infiltrating immune cells. Our studies support the hypothesis that the fibroblast is not simply a target for cytokines produced by cells such as macrophages and T lymphocytes, but that production of chemokines and cytokines by fibroblasts regulate the activities of cells of the immune system which inhabit and infiltrate the lung. Current efforts are directed at determining how a surface receptor called CD40 regulates fibroblast proliferation, cytokine production, and interaction with lymphocytes and proliferation. CD40 is the dominant regulator of fibroblast activation and through the CD40 ligand (CD40L) expressed on the surface of T cells, mast cells and platelets, allows communication between fibroblasts and immune cells. Recently, we have demonstrated that disruption of the CD40/CD40L pathway offers new therapy to prevent acute lung injury and lung fibrosis. Understanding the activities of fibroblasts will permit the design of more rational approaches to arrest or reverse potentially fatal and untreatable pulmonary fibrotic disease. A second major research thrust is to understand how tobacco smoke "activates" lung fibroblasts. Smoke induces fibroblast expression of the cyclo-oxygenase-2 enzyme, whose chronic expression predisposes to malignancy. We are studying the molecular mechanism of smoke activation of human lung cells and are studying the role of the aryl hydrocarbon receptor in smoke-induced lung inflammation. Reduction of pulmonary inflammation should reduce diseases such as chronic obstructive pulmonary disease (COPD).

Platelets and their Roles in Inflammation, Diabetes and Cardiovascular Disease

Platelets are not only essential for clotting, but have an emerging role in inflammation, diabetes and cardiovascular disease in part due to their release or production of the pro-inflammatory and pro-atherogenic mediators CD40 ligand (L) and thromboxanes (TX). Peroxisome Proliferator Activated Receptor gamma (PPARgamma) is a ligand-activated transcription factor important in lipid metabolism, cardiovascular disease, diabetes, and inflammation. We discovered that human platelets and megakaryocytes express PPARgamma and that natural and synthetic small molecule PPARgamma agonists influence platelet release of bioactive mediators (see *Blood*, 104:1361, 2004). For example, incubation with a natural PPARgamma agonist, 15d-PGJ₂, or with potent synthetic PPARgamma ligands used to treat type-2 diabetics, (e.g. rosiglitazone (Avandia[®])) prevented thrombin-induced CD40L surface expression and release of CD40L and TXB₂. Our results show that human platelets express PPARgamma and that PPARgamma agonists such as the thiazolidinedione class (e.g. rosiglitazone) of anti-diabetic drugs have a new target cell, the platelet. This may represent a novel mechanism for treatment of inflammation, thrombosis and vascular disease in high-risk patients. Our interest in platelets is further fueled by our studies showing that platelets prepared for transfusion become partially activated and that upon storage release many bioactive mediators that can induce fevers and lung injury (see *Blood*, 108, 2455, 2006). We are currently discovering the human platelet proteome in an effort to find new drug targets to regulate platelet function and to determine additional proinflammatory mediators produced by the most numerous white blood cell; the platelet.