

Leslie J. Crofford, MD
Professor, Regular Title Series
UNIVERSITY OF KENTUCKY COLLEGE OF MEDICINE

I. General Information

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Certifications

ABIM Internal Medicine - 1989
ABIM Rheumatology - 1992, 2003

Military Service

Commissioned Officer, United States Public Health Service, 1990-1993

II. Education

Sept 1976 – May 1980
Vanderbilt University, Nashville, TN
BA, Chemistry (Magna Cum Laude)

Sept 1980 – June 1984
University of Tennessee Center for Health Sciences, College of Medicine, Memphis, TN
MD (Alpha Omega Alpha)

III. Professional Experiences

July 1984- June 1987
Internship and Residency. Department of Internal Medicine, Barnes Hospital. Washington University School of Medicine. St. Louis, MO

July 1987- October 1989
Medical Staff Fellow. Human Genetics Branch and Laboratory of Molecular Genetics
National Institutes of Child Health and Human Development
National Institutes of Health, Bethesda, MD

October 1989- October 1993
Medical Staff Fellow. Arthritis and Rheumatism Branch
National Institutes of Arthritis and Musculoskeletal and Skin Diseases
National Institutes of Health, Bethesda, MD

IV. Academic Appointments

- October 1993-September 1999
Assistant Professor of Internal Medicine (Tenure Track, Physician Scientist), Division of Rheumatology, University of Michigan, Ann Arbor, MI
- October 1999-August 2004
Associate Professor of Internal Medicine (with Tenure), Division of Rheumatology, University of Michigan, Ann Arbor, MI
- September 2004-October 2004
Professor of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI
- October 2004-present
Gloria W. Singletary Professor of Women's Health Research (with Tenure, Regular Title Series), Department of Internal Medicine, Division of Rheumatology, University of Kentucky, Lexington, KY
- May 2005-present
Faculty Associate, Center for Research on Violence Against Women, University of Kentucky, Lexington, KY
- February 2006-present
Professor and Graduate Faculty, Department of Microbiology, Immunology, and Molecular Genetics, University of Kentucky, Lexington, KY

V. Academic Administrative Appointments

- May 1997-October 2004
Associate Division Chief for Training Programs, Division of Rheumatology, University of Michigan, Ann Arbor, MI
- October 2004-present
Chief, Division of Rheumatology, University of Kentucky, Lexington, KY
- October 2004-present
Director, Center for the Advancement of Women's Health, University of Kentucky, Lexington, KY
- January 2006-March 2008
Program Director, General Clinical Research Center, University of Kentucky, Lexington, KY
- April 2008-present
Director, Clinical Research Development and Operations Center, University of Kentucky, Lexington, KY
- April 2008-present
Associate Director, Center for Clinical and Translational Sciences, University of Kentucky, Lexington, KY

VI. Consultative Service

- 1998 Searle, U.S. Celecoxib Advisory Board
- 1999 Parke-Davis, Clinical Studies in Fibromyalgia
- 2000 Lilly, New Antidepressant Team for Developing Clinical Studies in Fibromyalgia
- 2000 SmithKline Beecham, Nabumetone Q Advisory Board
- 2000 Merck, Rofecoxib/VIGOR
- 2000 Morrison & Foerrester, LLP
- 2001 Cypress Biosciences, Clinical Studies in Fibromyalgia
- 2002 Wyeth Rheumatology Advisory Committee
- 2002 Wyeth/Amgen Enbrel RA and PsA National Advisory Board

2002 Novartis, Lumaricoxib
 2003 Wyeth, Neuropathic and Chronic Pain Program
 2003 Pfizer, Pregabalin Program
 2003 Orphan Pharmaceuticals, Clinical Studies in Fibromyalgia
 2004 BioMarin, Clinical Studies in Fibromyalgia
 2004 Pfizer, Pregabalin Program
 2004 Lilly, Duloxetine Pain Program
 2006 Merck, Etoricoxib Program
 2006 Allergan, Fibromyalgia Program
 2006 Wyeth, Neurosciences and Pain

VII. Teaching Activities

Intramural Lectures, University of Michigan

Feb. 1993 Local expression of corticotropin releasing hormone in inflammatory arthritis. Division of Rheumatology Grand Rounds.

Dec. 1994 Concepts of stress and stress system disorders: The fibromyalgia syndrome. Department of Internal Medicine Grand Rounds.

Feb. 1995 Autocrine/paracrine expression of CRH in inflammatory diseases. University of Michigan Gut Peptide Research Center Research Seminar.

Feb. 1995 Transcriptional regulation of cyclooxygenase-2 gene in rheumatoid synoviocytes. Research Seminar of the University of Michigan Specialized Center for Research in Rheumatoid Arthritis.

May 1995 The eosinophilia-myalgia syndrome. Scleroderma and Related Conditions: Epidemiology, Pathogenesis and Treatment.

Oct. 1995 Diagnosis and treatment of rheumatoid arthritis. Department of Internal Medicine Noon Conference.

Oct. 1995 The idiopathic inflammatory myopathies. Division of Rheumatology Clinical Conference.

Nov. 1995 The fibromyalgia syndrome. Department of Obstetrics and Gynecology Grand Rounds.

Nov. 1995 The HPA axis in autoimmune inflammatory diseases. Endocrinology and Metabolism Research Conferences.

Mar. 1996 The HPA stress axis in fibromyalgia. GCRC Education Conference.

June 1996 Inflammatory and metabolic myopathies. Department of Internal Medicine Noon Conference.

Jan. 1997 Myositis and myopathy. Division of Rheumatology Teaching Conference.

Jan. 1997 Fibromyalgia. Division of Rheumatology Teaching Conference.

Mar. 1997 Fibromyalgia: Differential diagnosis and treatment tips. University Health Service. Continuing Medical Education.

April 1997 Fibromyalgia. Department of Internal Medicine Noon Conference.

April 1997 Fibromyalgia. Anesthesia/Pain Clinic Conference.

April 1997 Prostaglandins and prostaglandin receptors in synovial tissues. RA-SCOR Research Conference.

May 1997 Evaluation of muscle pain and weakness. Advances in Internal Medicine. Department of Internal Medicine. Continuing Medical Education.

May 1997 Stress-HPA axis in systemic disease. Noon Conference, Division of Endocrinology and Metabolism.

July 1997 Glucocorticoids. Division of Rheumatology Teaching Conference.

July 1997 Comprehensive Clinical Assessment, University of Michigan Medical School.

Aug. 1997 NSAIDS. Division of Rheumatology Teaching Conference.

Oct. 1997 Myositis. Division of Rheumatology Teaching Conference.

Oct. 1997 Fibromyalgia. Division of Rheumatology Teaching Conference.

Oct. 1997 CRC Seminar: Update on Neuroendocrinology of Fibromyalgia.

Jan. 1998 PM&R Seminar: Fibromyalgia.

Mar. 1998 Nephrology Research Seminar. COX-2 in Arthritis.

May 1998 Inflammatory and Metabolic Myopathies. Department of Internal Medicine Noon Conference.

July 1998 Comprehensive Clinical Assessment, University of Michigan Medical School

Aug 1998 Specific COX-2 Inhibition: The Science of COX-2 Expression, Regulation, and Specific Inhibition. Department of Internal Medicine Grand Rounds.

Sept 1998 Division of Rheumatology Industry Training Program, Immunex Treatment - NSAID's and Steroids.

Jan 1999 Physical Therapy/Occupational Therapy In-Service: Fibromyalgia

Feb 1999 Expression & Regulation of COX-2 in RA. Department of Internal Medicine Faculty Research Conference.

Feb. 1999 M4 Senior Clinical Elective: Pharmacology and Therapeutics. Treatment of Fibromyalgia.

Mar. 1999 Specific COX-2 Inhibitors. Pharmacology Conference/Series.

Sep. 1999 The Biology of COX-2: Clinical implications of specific COX-2 inhibitors. Department of Internal Medicine Grand Rounds.

Sep. 1999 NSAIDs in the Older Adults: The role of COX-2 inhibitors. CME program: Musculoskeletal Diseases in the Elderly

Jan. 2000 Clinical Application of Specific COX-2 Inhibitors. General Medicine Grand Rounds. East Ann Arbor Health Center. Ann Arbor, MI.

May 2000 Approach to the Patient with Muscle Pain and Weakness. M2 Musculoskeletal Sequence.

May 2000 Inflammatory Myopathies. M2 Musculoskeletal Sequence.

Aug 2000 GCRC Seminar. Intensive Immunosuppression and Stem Cell Transplant in Scleroderma.

Sept 2000 Lipid Mediators of Inflammation. Division of Rheumatology Teaching Conference

Feb 2001 Therapeutic Advances in the Treatment of Rheumatoid Disease. Clinical Pharmacology and Therapeutics M4 Elective (2 hrs)

April 2001 Myositis. Internal Medicine Noon Conference

May 2001	Approach to the Patient with Muscle Pain and Weakness. M2 Musculoskeletal sequence.
May 2001	Myositis. M2 Musculoskeletal Sequence.
Aug 2001	Rheumatology Show and Tell. Division of Rheumatology Teaching Conference
Oct 2001	Generation and Action of Prostaglandins in Rheumatoid Arthritis. Division of Rheumatology Teaching Conference
Feb 2002	Update on the Treatment of Rheumatoid Arthritis. M4 Course in Clinical Pharmacology.
Mar 2002	Bench to Bedside to Bench: COX-2 inhibitors. K30 Lecture Series in Translational Research.
May 2002	Prostaglandin E Synthase: The New, New thing in Eicosanoid Biology. Anesthesia Research Conference.
Jan 2003	Inflammatory Myopathies. Internal Medicine Noon Conference
Feb 2003	Scleroderma. Internal Medicine Noon Conference
Feb 2003	Biologic Therapy of Rheumatoid Arthritis. M4 Course in Clinical Pharmacology.
May 2003	Myositis. M2 Musculoskeletal Sequence.
July 2003	Advances in the Management of Systemic Sclerosis. Internal Medicine Grand Rounds.
Feb 2004	Biologic Therapy of Rheumatoid Arthritis. M4 Course in Clinical Pharmacology.
May 2004	Myositis. M2 Musculoskeletal Sequence.
May 2004	M2 Small Group.
June 2004	Evaluation of patients with arthritis. Physical Medicine and Rehabilitation Teaching Conference.
June 2004	Connective tissue diseases. Physical Medicine and Rehabilitation Teaching Conference.
June 2004	Systemic sclerosis. Dermatology Teaching Conference.

Intramural Lectures, University of Kentucky

May 2005	Fibromyalgia: Pathophysiology of the stress response. Orofacial Pain Research Conference. College of Dentistry.
June 2005	Myositis. Internal Medicine Noon Conference.
June 2005	COXIBs and NSAIDs: How did we get here and what now? Internal Medicine Grand Rounds.
Oct 2005	Beyond COX-2: New insights into prostaglandin biology. Immunology Musings, Department of Microbiology, Immunology and Genetics.
Oct 2005	Rheumatology Update. Internal Medicine Grand Rounds.
Oct 2005	CPC: Hypertension and Renal Failure. Internal Medicine Grand Rounds.
Mar 2006	Beyond COX-2: New targets for drug development. Pharmaceutical Sciences

Grand Rounds, College of Pharmacy.

- April 2006 Update on Rheumatoid Arthritis. Physical Medicine & Rehabilitation Teaching Conference.
- June 2006 Workshop on Fibromyalgia. Family Practice.
- Aug 2006 Autoimmunity in Women. Immunology, College of Medicine.
- Sept 2006 Inflammatory Arthritis and Connective Tissue Diseases. PT-854 Physical Therapy lecture, College of Health Sciences
- Jan 2007 Inflammatory Arthritis and Connective Tissue Diseases. PT-854 Physical Therapy lecture, College of Health Sciences
- Feb 2007 Bench to Bedside to Bench: Non-steroidal Antiinflammatory Drugs. Elective in Clinical Research, College of Medicine
- July 2007 Rheumatologic Emergencies, Rheumatology Teaching Conference, College of Medicine
- July 2007 Rheumatology Show- and-Tell, Rheumatology Teaching Conference, College of Medicine
- Aug 2007 Vasculitis, Rheumatology Teaching Conference, College of Medicine
- Aug 2007 Systemic Autoimmune Diseases, Micro/Immunology M1 Course, College of Medicine
- Dec 2007 Vasculitis, Internal Medicine Noon Conference, College of Medicine
- Jan 2008 Inflammatory Arthritis and Connective Tissue Diseases. PT-854 Physical Therapy lecture, College of Health Sciences
- Jan 2008 Rheumatoid arthritis and Connective Tissue Disorders. CD680, College of Dentistry
- March 2008 Bench to Bedside to Bench: Non-steroidal anti-inflammatory drugs. Elective in Clinical Research, College of Medicine
- March 2008 Uveitis in Systemic Rheumatic Diseases. Ophthalmology Teaching Conference, College of Medicine
- May 2008 Kentucky Women's Health Registry. BIRCWH Lecture Series, Department of Obstetrics and Gynecology, College of Medicine
- July 2008 Rheumatoid Arthritis. Mechanisms of Human Disease, Integrated Biomedical Sciences program, College of Medicine
- July 2008 Bench to Bedside to Bench: Non-steroidal anti-inflammatory drugs. "Meet the Clinician Scientist" Introduction to Clinical Research, College of Medicine
- Aug 2008 Systemic Autoimmune Diseases in Women, Micro/Immunology M1 Course, College of Medicine
- Sept 2008 Treatment of Fibromyalgia. Neurology Grand Rounds, Department of Neurology, College of Medicine
- Sept 2008 Managing a Career Within the Hierarchy of Medical Academia. Women in Science & Medicine, College of Medicine.
- Jan 2009 Inflammatory Arthritis and Connective Tissue Diseases, PT-854, Physical Therapy lecture, College of Health Sciences

- Feb 2009 Fibromyalgia: New Insights into Pathophysiology and Treatment. Internal Medicine Grand Rounds, College of Medicine
- Feb 2009 Bench to Bedside to Bench: Non-steroidal anti-inflammatory drugs. Introduction to Clinical Research, College of Medicine
- Feb 2009 Rheumatoid arthritis and Connective Tissue Disorders. CD680, College of Dentistry
- March 2009 Fibromyalgia: Knowns, Unknowns, and Treatment. Orofacial Pain Program, College of Dentistry

VIII. Advising Activities

- Emily Papadopoulos (Somers), Ph.D. – University of Michigan, Undergraduate Research Mentor. 1994-1997
- Conor McCarthy, M.D., Ph. D. – Rheumatology, University of Michigan, Research Mentor. 1994-1996
- Vladimir Ognenovski, M.D. – Rheumatology, University of Michigan, Research Mentor. 1995
- Lori Masterson, M.D. – University of Michigan, Undergraduate Research Mentor. 1997-1998
- Emily Dawson, M.D. – University of Michigan, Undergraduate Research Mentor. 1998-2000
- Samardeep Gupta, M.D. – Rheumatology, University of Michigan, Research Mentor. 2000
- Brent Appleton, M.D., M.Sc. – Rheumatology/Clinical Research, University of Michigan, Research Mentor. 2000-2002
- Kathryn Dalbec, M.D. – University of Michigan, Undergraduate Research Mentor. 2000-2002
- Christine Ribbens, B.A. – University of Michigan, Undergraduate Research Mentor. 2002-2004
- Annaleise Sampey – Biology, Monash University, Melbourne, Australia, Thesis Examiner. 2000.
- Annaleise Sampey, Ph.D. – Post-doctoral Fellow, University of Michigan. 2001-2004
- Erin Boothe – Clinical Pharmacology, University of Michigan, Thesis Examiner (Preliminaries). 2003
- Paul MacDonald, M.D. – Senior Internal Medicine Research Project, Faculty Adviser. 2003
- Seetha Monrad, M.D. – Rheumatology, University of Michigan, Research Mentor. 2003 - 2005
- Vanika Lath, M.D. – Rheumatology, University of Michigan, Research Mentor. 2001, 2003- 2004
- Janine Walker, Ph.D. – Behavioral Medicine, University of Melbourne (Australia), Thesis Examiner. 2003
- Chinh Tran – Immunology, University of Michigan, Ph.D.Thesis Committee. 2003 – 2004
- Mohit Kapoor, Ph.D. – Postdoctoral Fellow, University of Kentucky. 2005 – 2007
- Fumiaki Kojima, Ph.D. – Postdoctoral Fellow, University of Kentucky. 2005 – 2009
- Marie Westman – Biochemistry, Karolinska Institutet, Stockholm, Sweden. Faculty Opponent for dissertation. December 2005
- Michael Mienaltowski, D.V.M. – Equine Sciences, University of Kentucky, Ph.D. Thesis Committee. 2005-2008
- Lan Chi Luu, Ph.D. – Nutrition Sciences, University of Kentucky, Research Co-Mentor, 2006-2007

Lise Solberg Nes – Psychology/Neuroendocrine Immunology, Ph.D. Thesis Committee, 2006-2009

Candace Hunter – Kinesiology, Medical Advisor and Masters Thesis Committee, 2006-2006

Kristine Lain, M.D. – Obstetrics & Gynecology, Research Mentor, 2006-2008

Erika Fleisheker – IBS Graduate Program rotation, 2007

Mikolaj Milewski – Clinical Pharmacology, University of Kentucky, Ph.D. Thesis Committee, 2007-present

Ponnappa C. Kottangada, Ph.D. – Postdoctoral Fellow, University of Kentucky. 2007-2008

Karen Lommel, M.D. – Adolescent Psychiatry, University of Kentucky, Research Mentor, 2007-present

Wenyong Zhu – Equine Sciences, University of Kentucky, Ph.D. Thesis Committee, 2007-present

Suzette Sewell-Scheuerman – Nursing, Ph.D. Thesis Defense Outside Examiner, 2008

Elsa Bou Ghanem – IBS Graduate Program, University of Kentucky, Ph.D. Thesis Committee, 2008-present

Mary Catherine Kermicle – IBS Graduate Program, University of Kentucky, Ph.D. Thesis Committee, 2008-present

Nicholas Hatch – IBS Graduate Program, University of Kentucky, Ph.D. Thesis Committee, 2009-present

Sara M. Friebert – Masters Program, University of Kentucky College of Public Health, Capstone Advisor, 2009

IX. Administrative Activities

University of Michigan

1994	Planning Committee, Advances in Internal Medicine
1995-2000	Organizing Director, Rheumatology Journal Club
1996.1997	Co-Director, Rackham Arthritis Research Unit Conference Series
1997-2004	Organizing Director, Rackham Arthritis Research Unit Conference Series
1997.1999	Clinical Redesign Task Force, Division of Rheumatology
1997-1998	Division of Rheumatology Representative, CRUSO
1997-2001	Biomedical Research Division Operating Committee, MAMDC
1997-2001	DNA - Sequencing Core Facility Steering Committee, MAMDC
1998.2001	E/E/HSR - Education, Epidemiology, Health Services Research Division Operating Committee
2000-2004	Education Committee, Department of Internal Medicine, University of Michigan
2000-2004	Awards Committee, Department of Internal Medicine
2001-2004	Oversight Committee for Michigan Lupus Cohort Studies
2001-2002	Faculty Performance Evaluation Committee, Department of Internal Medicine
2002-2004	Chair, Faculty Performance Evaluation Committee, Department of Internal Medicine
2002-2004	Conflict of Interest Board, University of Michigan Medical School
2003	Co-Chair, Working Group on Clinical Research, Department of Internal Medicine

University of Kentucky

2004-2005	Faculty Advisory Committee, Center for Research on Violence Against Women
2004-2007	Member, President's Commission on Women
2005-	Internal Medicine Grand Rounds Committee

2005- Dean's Clinical Research Scholars Program
2005- Dean's Advisory Group on Women
2006-2008 Planning Committee, Center for Clinical and Translational Research
2005- Faculty Associate, Center for Research on Violence Against Women
2006-2009 Faculty Senate
2006-2007 Chair, Research Committee of the Faculty Senate
2006-2007 Co-Chair of the Search Committee, Vice President for Research
2009 Six-year Review Committee, Center for Research on Violence Against Women
2009 Six-year Review Committee, Department of Orthopaedic Surgery
2009- Advisory Board, BIRCVH program

National

1993 Member, Abstract Selection Committee, Rheumatoid Arthritis: Etiology and Pathogenesis. Rheumatoid Arthritis: Animal Models. Annual Meeting of the American College of Rheumatology
1994 Member, Abstract Selection Committee, Inflammation. Annual Meeting of the American College of Rheumatology
1997 Member, Abstract Selection Committee, Cell-Cell Interactions. Annual Meeting of the American College of Rheumatology
1998-1999 Member, Self-Assessment Committee, American College of Rheumatology
1998-2000 Chair, Soft Tissue Rheumatism Study Group, American College of Rheumatology
1998-2001 Member, *Arthritis & Rheumatism* Sub-Committee, American College of Rheumatology
1998.2001 Professional Meetings Committee, American College of Rheumatology
1999 Member, Abstract Selection Committee, Signal Transduction, Annual Meeting of the American College of Rheumatology
1999.2002 Committee on Research, American College of Rheumatology
2000 Member, Abstract Selection Committee, Orthopedics, Rehabilitation, Annual Meeting of the American College of Rheumatology
2000 Member, Abstract Selection Committee, Soft Tissue and Regional Musculoskeletal Disease, Fibromyalgia, Annual Meeting of the American College of Rheumatology
2001 Multipurpose Clinical Research Center (NIAMS) External Review Committee (Pre-submission) for University of Cincinnati
2001-2001 Chair, Medical and Scientific Committee, Michigan Chapter of the Arthritis Foundation
2001 Multipurpose Clinical Research Center (NIAMS) External Advisory Committee (Pre-submission) for University of Pennsylvania
2001 Co-Chair American College of Rheumatology Spring Clinical Meeting, Chicago, IL
2001 Member, Abstract Selection Committee, Orthopedics, Rehabilitation, Annual Meeting of the American College of Rheumatology
2002 Member, Abstract Selection Committee, Soft Tissue and Regional Musculoskeletal Disease, Fibromyalgia, Annual Meeting of the American College of Rheumatology
2002 ACR/Research and Education Foundation Portfolio Assessment Committee
2002-2003 Journal Publications Committee, American College of Rheumatology
2002-2003 Member, American Pain Society Committee for Guidelines on the Treatment of Fibromyalgia
2003-2006 Chair, Journal Publications Committee, American College of Rheumatology
2004-2005 Vice-Chair for Peer Review, Medical and Scientific Advisory Committee, National Arthritis Foundation
2004- Kentucky Arthritis Advisory Committee
2005- Board of Trustees, Ohio River Valley Chapter, Arthritis Foundation
2005-2007 Vice President, American College of Rheumatology Research and Education Foundation
2005-2009 Executive Committee of the Board of Directors, American College of Rheumatology and ACR Research and Education Foundation
2005-2007 Nominations Committee, American College of Rheumatology
2007-2009 President, American College of Rheumatology Research and Education Foundation
2007-2009 Board of Directors, American College of Rheumatology

International

1997-present Steering Committee, International Cyclooxygenase-2 Study Group
1999-present Advisory Board, Advances in Targeted Therapies
2000-present Founding Member, Global Arthritis Research Network
2002-present International COX-2 Study Group
2004-present OMERACT Fibromyalgia Group

X. Special Assignments

1999.2002 American College of Rheumatology Committee on Research
2002 NIAMS Program Assessment Committee on Fibromyalgia
2002.2003 American Pain Society Panel for Development of Fibromyalgia Treatment Guidelines
2003 NIAMS Roundtable on the Rheumatic Diseases
2003 Chair, NIH-Wide CFS Working Group Conference on Chronic Fatigue Syndrome
2003-2004 Data safety monitoring board, NIAMS, for the "Gabapentin in Fibromyalgia Trial (GIFT)"
2003-2005 Data safety monitoring board, NIAMS, for "A 24-week, double blind, randomized study to determine the effects of 24 weeks of dosing with Tripterygium wilfordii Hook F (TxHF) or sulfasalazine, in subjects with active Rheumatoid Arthritis"
2003-present Food and Drug Administration Center for Drug Evaluation Special Government Employee
2003 FDA Rheumatology Advisory Board consultant on treatment of fibromyalgia
2004 Strategic Planning Committee, National Center for Complementary and Alternative Medicine (NCCM)
2004-present Chair, Data safety monitoring board, NIAMS, for "Randomized Clinical Trial in Juvenile Fibromyalgia"
2004-2007 Arthritis Research Council Epidemiology Unit, Manchester, UK. External Scientific Advisory Board.
2006-present Data safety monitoring board, PRECISION (Prospective Randomized Evaluation of Celecoxib Safety vs. Ibuprofen or Naproxen), Pfizer/Cleveland Clinic
2008 Chair, NIAMS Roundtable Advisory Group on the Rheumatic Diseases
2009-2012 NIAMS Advisory Council

XI. Honors and Awards

1980 Omicron Delta Kappa, Vanderbilt University
1984 Alpha Omega Alpha
1992 American College of Rheumatology Senior Rheumatology Scholar Award
1994 J.V. Satterfield Arthritis Investigator Award, Arthritis Foundation
1996 Central Society for Clinical Research
1999 Jerome W. Conn Award for Distinguished Research by a Junior Faculty Member
Department of Internal Medicine, University of Michigan
2000 ABIM Subspecialty Board on Rheumatology
2004 Gloria W. Singletary Chair for Women's Health Research, University of Kentucky
2007 President, American College of Rheumatology Research and Education Foundation
2009 NIH/NIAMS Advisory Council
2009 Ira M. Goldstein Memorial Lectureship, New York University

XII. Professional Activity and Public Services

Memberships in Professional and Scientific Societies

Alpha Omega Alpha
American Association of Immunologists
American College of Physicians
American College of Rheumatology
American Federation for Clinical Research
American Pain Society
Clinical Immunology Society

Central Society for Clinical Research
International Myopain Society
Osteoarthritis Research Society International
William D. Robinson Society

Study Section/Grant Review

1997	Member, Arthritis Foundation Study Section on Inflammation
1998	Co-Chair, Arthritis Foundation Study Section on Inflammation
1999	Chair, Arthritis Foundation Study Section on Inflammation
2000	Member, NIAMS Special Review Committee for Clinical Trial Applications
2001	Member, NIH Chronic Fatigue Syndrome Special Review Panel
2001	Chair, NIAMS Special Review Committee for Clinical Trial Applications
2003	Chair, NIAMS Special Review Committee for RFA "Multidisciplinary Biobehavioral Rheumatic Diseases Workshops"
2004	Member, NIAMS Special Review Committee for Training Grants
2005	Ad hoc Member, NIH CSR ACTS Study Section
2005	Ad hoc Member, NIAMS Special Grants Review Committee
2006	Ad hoc Member, NIH CSR ACTS Study Section
2006-2009	Member, AMS Study Section, NIAMS
2007-2008	Within Our Reach Study Section, ACR REF

Ad hoc grant reviewer for:

Veteran's Administration (1998)
The Wellcome Trust, UK (1999, 2001)
UK Medical Research Council (2002)
UK Arthritis Research Campaign (2005)
INSERM, Prog National de Recherche sur les maladies Ostéo-Articulaires (2007)
EULAR Oraphn Disease Program (2009)

Participation on Journal Review Panels/Editorial Boards

1999-2003	Advisory Committee, <i>Annals of the Rheumatic Diseases</i>
1999-2003	Editorial Board, Inflammation Section, <i>Arthritis Research</i>
2000-2004	Advisory Editor, <i>Arthritis and Rheumatism</i>
2000-2001	<i>Section Editor</i> : Fibromyalgia, <i>Current Rheumatology Reports</i>
2001	<i>Associate Editor</i> : Primer on the Rheumatic Diseases (12 th Edition)
2001	<i>Guest Editor</i> : Osteoarthritis, <i>Current Opinion in Rheumatology</i>
2004-	Editorial Advisory Board, <i>Expert Review of Clinical Immunology</i>
2004-2006	Consultant to the Editorial Board, www.jointandbone.com
2005-2010	Editorial Board, <i>Rheumatology</i>
2005-	Advisory Board, Nature Clinical Practice Rheumatology
2005-2007	<i>Associate Editor</i> : Primer on the Rheumatic Diseases (13 th Edition)
2007-2010	<i>Associate Editor</i> : Prostaglandins and other Lipid Mediators
2008-	Advisory Committee, <i>Annals of the Rheumatic Diseases</i>

Ad hoc reviewer for: *Annals of the Rheumatic Diseases*, *Arthritis and Rheumatism*, *Arthritis Research and Therapy*, *British Journal of Pharmacology*, *Clinical and Experimental Rheumatology*, *Clinical Rheumatology*, *European Journal of Pharmacology*, *FASEB Journal*, *Journal of Clinical Endocrinology*, *Journal of Clinical Investigation*, *Journal of Immunology*, *Journal of Musculoskeletal Pain*, *Journal of Pharmacology and Experimental Therapeutics*, *Journal of Rheumatology*, *Kidney International*, *Lancet*, *New England Journal of Medicine*, *Neuropsychopharmacology*, *Osteoarthritis and Cartilage*, *Pain*, *Prostaglandins and other Lipid Mediators*, *Rheumatology*.

XIII. Speaking Engagements

Local/Regional

Feb 1997	Fibromyalgia: Differential diagnosis, treatment tips. Internal Medicine Grand Rounds, St. Joseph Mercy Hospital. Ann Arbor, MI.
Mar 1997	Fibromyalgia. Internal Medicine House Staff Teaching Conference, Oakwood

Hospital. Dearborn, MI.

June 1997 Myositis. Internal Medicine Grand Rounds. St. John's Hospital. Detroit, MI.

July 1997 Neuroendocrine systems in rheumatic diseases. Michigan Initiative for Women's Health Methods and Measures Workshop. Ann Arbor, MI.

Dec 1997 Eosinophilic fasciitis. Internal Medicine Grand Rounds. Oakwood Hospital. Dearborn, MI.

July 1998 Clinical implication of selective inhibition of cyclooxygenase-2. Grand Rounds. William Beaumont Hospital. Royal Oak, MI.

Dec 1998 Inflammatory myopathies. Grand Rounds, Hurley Hospital. Flint, MI.

Feb 1999 Biology of COX-2: Implications for clinical applications for specific COX-2 inhibitors. COX-2 Technology. Hyatt Regency Dearborn & Troy Marriott, Michigan.

Mar 1999 Selective COX-2 inhibition. Department of Internal Medicine Grand Rounds. Wayne State University. Detroit, MI.

June 1999 Fibromyalgia and chronic fatigue syndrome. Rheumatology Update for the Primary Care Physician. University of Michigan CME. Mackinac Island, MI.

June 1999 COX-2 inhibitors. Rheumatology Update for the Primary Care Physician. University of Michigan CME. Mackinac Island, MI.

Nov 1999 Specific COX-2 inhibitors. 1999 Michigan State Medical Society Annual Scientific Meeting. Dearborn, MI.

Jan. 2000 Idiopathic inflammatory myopathies. Department of Internal Medicine Grand Rounds. MacLaren Hospital. Flint, MI.

Mar 2000 Neuroendocrine involvement in the pathophysiology of fibromyalgia. Toledo Rheumatism Society. Toledo, OH

May 2000 Update on new therapies for arthritis. Michigan Chapter, Arthritis Foundation forum "New Choices 2000: Managing Your Arthritis". Plymouth, MI

May 2001 New NSAIDs. Department of Internal Medicine Grand Rounds, Henry Ford Hospital. Dearborn, MI

Nov 2001 Fibromyalgia: What do we know? Emerging Issues in Arthritis, Asthma and Osteoporosis Conference. Michigan Public Health Institute. Novi, MI

Jan 2002 Treatment of Rheumatoid Arthritis. Department of Internal Medicine Grand Rounds, Hurley Hospital. Flint, MI

May 2002 Fibromyalgia: What do we know? Pfizer. Ann Arbor, MI

May 2002 Update on Myositis. University of Michigan CME. Internal Medicine Update. Ann Arbor, MI

Jan 2003 Idiopathic Inflammatory Myopathies. Internal Medicine Grand Rounds. St. Joseph's Mercy Hospital. Ann Arbor, MI

May 2003 Update on Scleroderma. University of Michigan CME. Internal Medicine Update. Ann Arbor, MI

May 2003 Medications and Treatments for Fibromyalgia. Michigan Fibromyalgia Awareness Day Conference 2003. Warren, MI

June 2005 Fibromyalgia. Hazard Family Practice Residency Program. Hazard, KY

- Sept 2005 New Treatments for Rheumatoid Arthritis. Trover Foundation Internal Medicine Grand Rounds. Madisonville, KY
- Oct 2005 Diagnosis and Management of Chronic Widespread Pain/Fibromyalgia. Differential Diagnosis of New Onset Arthritis. Diagnosis and Management of Systemic Lupus. University of Kentucky Family Medicine Review (CME). Lexington, KY
- May 2006 Diagnosis and Management of Chronic Widespread Pain/Fibromyalgia. Differential Diagnosis of New Onset Arthritis. Diagnosis and Management of Systemic Lupus. University of Kentucky Family Medicine Review (CME). Lexington, KY
- May 2006 The Role of Stress in Development of Fibromyalgia and Related Syndromes. National Conference on Health Implications of Violence Against Women, Center for Research on Violence Against Women, Lexington, KY
- June 2006 Geriatric Update: Diagnosis and Management of Rheumatic Conditions. Sanders-Brown Annual Conference on Aging, Lexington, KY
- June 2006 Violence, Stress, and Somatic Syndromes. National Conference of Violence Against Women, Lexington, KY
- Sept 2006 Rheumatic Diseases in the Elderly. Kentucky State Conference on Aging, Louisville, KY
- Oct 2006 Osteoarthritis: Update of Management. Advances in Pharmacy Practice CME Conference, College of Pharmacy. Lexington, KY
- Oct 2006 Healthy Aging for Women. Toyota Bluegrass Women's Conference. Louisville and Lexington, KY
- Oct 2007 Chronic Disease Prevention for Women. Beaumont Library. Lexington, KY
- Oct 2007 Kentucky Women's Health Registry. University of Louisville Women's Health Research Collaborative. Louisville, KY
- Mar 2008 Sleep in Fibromyalgia. Kentucky-Tennessee Rheumatology Research Retreat. Shaker Village, KY
- National**
- Sept 1990 Genetic analysis of arthritis susceptibility in Lewis and Fischer rats. NIH Research Festival '90: Neuroendocrine Immunology Workshop. Washington, DC.
- May 1991 Animal studies on the eosinophilia-myalgia syndrome. World Health Organization Conference. Toxic oil syndrome and eosinophilia-myalgia syndrome: Pursuing parallels in pathogenesis. Washington, DC.
- Aug 1991 Local production of neuropeptides in inflammatory arthritis. Division of Rheumatology, University of Tennessee Health Sciences Center College of Medicine.
- July 1992 Local corticotropin-releasing hormone in inflammatory arthritis. Departments of Medicine and Immunology/Microbiology, Vanderbilt University. Nashville, TN.
- Jan 1993 Local corticotropin-releasing hormone in inflammatory arthritis. Division of Rheumatology and Clinical Immunology, University of Alabama Birmingham.
- Mar 1993 Heat shock proteins in immune/inflammatory diseases. Division of Rheumatology, Fairfax Hospital. Fairfax, VA.
- Mar 1993 Local corticotropin-releasing hormone in inflammatory arthritis. Division of

Clinical Immunology, Baylor University. Dallas, TX.

- May 1993 The hypothalamic-pituitary-adrenal axis in fibromyalgia. NIH Workshop on Fibromyalgia. Bethesda, MD.
- May 1993 Neurobiology and inflammation. Scientific Symposium, Northeast Regional Meeting of the American College of Rheumatology. Boston, MA
- June 1993 Neuroendocrine immunology. Medical Grand Rounds, Sibley Hospital. Washington, DC.
- Nov 1993 Peripheral interactions between the nervous and immune systems. Clinical Symposium, "The Central and Peripheral Neurohormonal Nervous System in the Rheumatic Diseases," Annual Meeting of the American College of Rheumatology. San Antonio, TX
- Jan 1994 Expression and regulation of cyclooxygenase-1 and -2 in synovial tissue. Inflammation Association meeting, "Cyclooxygenase-2: Potential as a New Therapeutic Target." New York, NY
- Oct 1994 The HPA axis in fibromyalgia. Annual Meeting of the American College of Rheumatology. Minneapolis, MN
- Aug 1995 The hypothalamic-pituitary-adrenal stress axis in fibromyalgia. MYOPAIN '95. San Antonio, TX
- Nov 1995 The inflammatory myopathies: New perspectives. Michigan Rheumatism Society. Dearborn, MI
- Feb 1996 Expression and regulation of COX-2 in synovial tissues. Immuno-Inflammatory Disease Research Group Conference. Searle/Monsanto. St. Louis, MO
- Apr 1996 Expression and regulation of COX-2 in synovial tissues of arthritis patients. William Harvey Research Conferences on "New Targets in inflammation: inhibitors of COX-2 or adhesion molecules." New Orleans, LA
- June 1996 Expression and regulation of COX-2 in synovial tissues. Rheumatology Grand Rounds. University of Illinois at Chicago. Chicago, IL
- July 1996 Neuroendocrinology of fibromyalgia. NIH Workshop on "The Neuroscience and Endocrinology of Fibromyalgia". Bethesda, MD
- Oct 1996 Fibromyalgia: Differential diagnosis, treatment tips. Rheumatology Today: Pathways to Progress. Albert Einstein College of Medicine Continuing Medical Education Program. Livonia, MI
- Oct 1996 HPA axis dysregulation in fibromyalgia. Soft Tissue Rheumatism Study Group. American College of Rheumatology. Orlando, FL
- Oct 1996 COX-1 and COX-2 Tissue Expression: Implications and Predictions. Progress Toward a New Class of Therapeutics: Selective COX-2 Inhibition. Post-meeting symposium, American College of Rheumatology. Orlando, FL
- Nov 1996 The HPA axis in fibromyalgia. 3rd International Congress of the International Society for Neuroimmunomodulation. Washington, DC
- Mar 1997 COX-1 and COX-2 Tissue Expression: Clinical implications and predictions. Division of Rheumatology Grand Rounds, NYU. New York, NY
- Nov 1997 The mechanism of action of COX-1 vs COX-2 inhibitors. Perspectives on the COX-1/COX-2 Hypothesis. Post-meeting symposium of the 1997 National Meeting of the American College of Rheumatology. Washington, DC
- Nov 1997 Expression and regulation of Cox 1/2. Symposium on "Variability in Response:

- Clues to More Effective Therapy of Rheumatoid Arthritis." Washington, DC
- Jan 1998 COX-2 regulation in rheumatoid synoviocytes. Keystone Symposium, "Pathogenesis of Rheumatoid Arthritis: Implications for Future Therapy." Tamarron, CO
- Mar 1998 COX-2 Inhibitors. Seminar in Advanced Rheumatology sponsored by New York University Medical Center. New York, NY
- April 1998 COX-1/2 in synovial tissues of arthritis patients. William Harvey Research Conferences on "Clinical Benefits on Selective COX-2 Inhibitors." Boston, MA
- May 1998 Specific COX-2 Inhibition: What are the Valid Criteria? Specific COX-2 Inhibition - Implications in Gastroenterology. Satellite Symposium to the Annual Gastroenterology Meeting. New Orleans, LA
- June 1998 The Biology of Stress. Georgetown University Medical Center Conference on Federally Sponsored Gulf War Veterans' Illnesses Research. Pentagon City, Washington
- Nov 1998 Fibromyalgia Point/Counterpoint. ARHP Concurrent Session. ARHP National Scientific Meeting. San Diego, CA
- Feb 1999 Biology of COX-2: Implications for Clinical Applications for Specific COX-2 Inhibitors. Division of Molecular and Clinical Rheumatology Grand Rounds. John Hopkins University. Baltimore, MD
- Feb 1999 Biology of COX-2: Implications for Clinical Applications for Specific COX-2 Inhibitors. DC Rheumatism Meeting. Washington Hospital Center. Washington, DC
- Mar 1999 Biology of COX-2. Division of Rheumatology, Research Conference. Duke University. Durham, NC
- Mar 1999 Biology of COX-2. Division of Rheumatology, Grand Rounds. University of North Carolina. Chapel Hill, NC
- Mar 1999 Biology of COX-2. Division of Orthopedics, Grand Rounds. University of North Carolina. Chapel Hill, NC
- Mar 1999 Specific COX-2 Inhibitors. Seminar in Advanced Rheumatology sponsored by New York Medical Center. New York, NY
- April 1999 The Role of COX-2 in Rheumatoid Arthritis Synovial Tissues. The Fourth International Synovitis Workshop. Dallas, TX
- May 1999 The Neuroendocrinology of Fibromyalgia. Rheumatology Grand Rounds. Case Western Reserve University. Cleveland, OH
- May 1999 Biology of COX-2. Division of Rheumatology, Rheumatology Research Conference. University of Alabama. Birmingham, AL
- May 1999 Neuroendocrinology of Fibromyalgia. Alabama Rheumatism Society. Birmingham, AL
- Sept 1999 Prostaglandin production and action in synovial tissues. 6th International Conference on Eicosanoids & Other Bioactive Lipids. Boston, MA
- Sept 1999 HPA axis – Important interactions with other central nervous system functions, including modulation of pain perception, mood and cognitive function. Subsets in Fibromyalgia Syndrome Symposium. Portland, OR
- Nov 1999 COX-2 selective agents vs traditional NSAIDs – Where do COX-2 selective agents fit in the treatment of inflammatory arthritis? ACR Clinical Symposium. Boston,

MA

- Dec 1999 Biology and clinical application of COX-2. Rheumatology Grand Rounds. Columbia University. New York, NY
- Mar 2000 TNF- α in health and disease. ACR Spring Clinical Meetings. New Orleans, LA
- Mar 2000 Expression and regulation of COX-2. Division of Rheumatology Journal Club Seminar. University of Tennessee. Memphis, TN
- Mar 2000 Biology of COX-2: Relevance to clinical use of specific COX-2 inhibitors. Memphis Rheumatism Society. Memphis, TN
- Mar 2000 Idiopathic inflammatory myopathies. Internal Medicine Grand Rounds. University of Tennessee. Memphis, TN
- June 2000 Safety and efficacy of COX-2 inhibitors for the treatment of rheumatic diseases. Osteoarthritis: Update of disease concepts and treatments. Pfizer – Italiana. New York, NY
- Oct 2000 Stress as a risk factor for developing fibromyalgia. ACR Study Group. Philadelphia, PA.
- June 2001 TNF in biology and disease. Indiana Rheumatism Society. Indianapolis, IN.
- June 2001 Neuroendocrinology of fibromyalgia. Rheumatology Grand Rounds, University of Indiana. Indianapolis, IN.
- Sep 2001 The neuroendocrine system in fibromyalgia. Myopain 2001. Portland, OR
- Oct 2001 Expression and regulation of mPGE synthase in synovial cells. Eicosanoids & Other Bioactive Lipids in Cancer, Inflammation and Related Diseases, 7th International Conference. Nashville, TN
- Nov 2001 The multiple dimensions of the fibromyalgia syndrome patient. Emerging Trends in Our Understanding of the Fibromyalgia Syndrome. Post-Meeting Symposium. National Meeting, American College of Rheumatology. San Francisco, CA
- Mar 2002 Treatment of rheumatoid arthritis. Medical Grand Rounds. University of Arkansas. Little Rock, AR
- April 2002 Regulation of PGE₂ synthesis in synovial cells. Division of Rheumatology Research Conference. University of Texas Southwestern. Dallas, TX
- Sep 2002 New developments in prostaglandin biology: Implications for treatment of arthritis. NIAMS Research Conference. NIH. Bethesda, MD
- Sep 2002 Cyclooxygenase-2 inhibitors: Therapeutic uses and cardiovascular risks. Annual meeting of the American College of Clinical Pharmacology. San Diego, CA
- Oct 2002 Neuroendocrine dysfunction in fibromyalgia. Annual meeting of the Southeastern Academic Pain Consortium. Greensboro, NC
- Oct 2002 Management of fibromyalgia patients: Novel therapeutic agents on the horizon. Industry Roundtable Symposium (Chair) - Fibromyalgia Syndrome: A brighter future. Annual meeting of the American College of Rheumatology. New Orleans, LA
- Dec 2002 New developments in prostaglandin biology: Implications for treatment of arthritis. Rheumatology Grand Rounds, New York University, New York, NY
- April 2003 The place of COXIBs in the treatment of rheumatic diseases. Annual meeting of the American Society of Pharmacology and Experimental Therapeutics. Experimental Biology '03. San Diego, CA

April 2003 Fibromyalgia: What we know and what we need to know. Wyeth. Collegeville, PA

May 2003 Prostaglandin E synthase and EP receptors in rheumatoid arthritis. Inflammation Research Association. NY Academy of Sciences. New York, NY

Oct 2003 Pain management in fibromyalgia. Clinical Symposium, Annual Meeting of the American College of Rheumatology. Orlando, FL

Oct 2003 Emerging trends in the pharmacotherapy of fibromyalgia. Industry Roundtable of the ACR Annual Meeting. "Managing Fibromyalgia: From Laboratory to Clinical Practice", Orlando, FL

Mar 2004 Treatment of fibromyalgia syndrome. Annual Meeting of the American College of Physicians, New Orleans, LA

June 2004 Emerging pharmacotherapy of fibromyalgia syndrome. Dallas, TX

Dec 2004 New pharmacotherapies for fibromyalgia syndrome. Alabama Rheumatism Society. Birmingham, AL

Dec 2004 Update on the biology of prostaglandin production. Rheumatology Grand Rounds, University of Alabama. Birmingham, AL

Jan 2005 New therapeutic options for fibromyalgia syndrome. Rheumatism Society of Washington DC. Tyson's Corner, VA

May 2005 Beyond COX-2: What's new in Prostaglandin Biology. Rheumatology Grand Rounds, University of Colorado, Denver, CO

May 2005 Fibromyalgia Syndrome. 3rd Annual Women's Health Conference. Hagerstown, MD

May 2005 Emerging treatment strategies for fibromyalgia. Clinical Symposium. American Psychiatric Association Annual Meeting. Atlanta, GA

June 2005 Beyond COX-2: New developments in Prostaglandin Biology and Action. Rheumatology Grand Rounds, Beth Israel Hospital, Harvard University, Boston, MA.

Dec 2005 Management of Fibromyalgia. Rheumatology Grand Rounds. Hospital for Special Surgery, New York, NY

Mar 2006 New developments in fibromyalgia research and treatment. Kansas City Rheumatism society. Kansas City, MO

Mar 2006 Beyond COX-2: New developments in prostaglandin biology. University of Kansas Rheumatology Grand Rounds. Kansas City, KS

July 2006 Pharmacologic Treatment of Fibromyalgia. CINP Annual Conference. Chicago, IL

Sept 2006 Pfizer Visiting Professorship, Northshore/Long Island Jewish Health System. Lectures - OB/GYN Grand Rounds, Psychiatry Grand Rounds, Internal Medicine Grand Rounds, Rheumatology Conference, Long Island, NY

Oct 2006 New developments in fibromyalgia research and treatment. Rheumatology Grand Rounds, Columbia University. New York, NY

Nov 2006 Clinical Update: Fibromyalgia. Arthritis Related Health Professionals (ARHP) Annual Scientific Meeting. Washington, DC

Jan 2007 What's new in eicosanoid biology? ACR Winter Rheumatology. Snowmass, CO

- Jan 2007 Fibromyalgia Syndrome. ACR Winter Rheumatology. Snowmass, CO
- May 2007 Exploring the Reality of Fibromyalgia (Satellite Symposium, Program Chair).
Treating the Fibromyalgia Patient. American Pain Society Annual Meeting.
Washington, DC
- May 2007 Fibromyalgia: New Insights into the Pathophysiology and Treatment (Satellite
Symposium). New Developments in the Pharmacological Treatment of
Fibromyalgia. American Psychiatric Association Annual Meeting. San Diego, CA
- Nov 2007 Arthritis & Rheumatism at 50: The best of the Past, The Best of the Future. ACR
Annual Scientific Meeting. Boston, MA
- Nov 2007 Practical management of challenging pain syndromes. Evidence-based
management of fibromyalgia. ACR Annual Scientific Meeting, Boston, MA
- Nov 2007 Fibromyalgia. New York Rheumatism Association. New York, NY
- Nov 2007 Mechanism-based treatment of fibromyalgia. Rheumatology Grand Rounds,
Hospital for Special Surgery. New York, NY
- Feb 2008 NSAIDs beyond COX-2: What went wrong and what now? Internal Medicine
Grand Rounds. The Ohio State University. Columbus, OH
- Feb 2008 mPGES-1: A new therapeutic target for PGE₂ inhibition? Pulmonary and Critical
Care Research Conference. The Ohio State University. Columbus, OH
- Feb 2008 The biology of mPGES-1: A new target for anti-inflammatory drug development?
Pharmacology Seminar. University of Pennsylvania. Philadelphia, PA
- Mar 2008 mPGES-1 biology in arthritis: Implications for development of new anti-
inflammatory drugs. Spring 2008 Eicosanoid Symposium. University of Michigan.
Ann Arbor, MI
- Oct 2008 Managing a career in the hierarchy of academic medicine. Young
Rheumatologists Symposium. ACR Annual Scientific Meeting. San Francisco,
CA
- Dec 2008 NSAIDs beyond COX-2. Rheumatology Grand Rounds. University of
Massachusetts, Worcester, MA
- March 2009 Fibromyalgia: Knowns, Unknowns, and Treatment. Ira M. Goldstein Memorial
Lecture, Seminar in Advanced Rheumatology, New York University, New York, NY
- May 2009 Fibromyalgia: Treatment based on physiology and symptom domains. 2009
South Carolina Rheumatism Conference, Charleston, SC
- May 2009 Stem cell transplant for systemic sclerosis: Where does high-intensity
immunosuppressive treatment fit? 2009 South Carolina Rheumatism Conference,
Charleston, SC

International

- Oct 1995 Expression and regulation of COX-2 in synovial tissues of arthritis patients.
William Harvey Research Conferences on "Improved non-steroidal anti-
inflammatory drugs; COX-2 enzyme inhibitors", London
- Apr 1996 The stress response and fibromyalgia. 8th APLAR Congress of Rheumatology.
Melbourne, Australia
- Apr 1996 The hypothalamic-pituitary-adrenal axis abnormalities in animal models of
inflammatory arthritis and patients with rheumatoid arthritis. 8th APLAR Congress
of Rheumatology. Melbourne, Australia

- Sept. 1996 Biology of COX-1 and COX-2. 6th Annual Scientific Meeting of the German Society of Clinical Pharmacology and Therapeutics. Dresden, Germany
- Oct 1997 The Hypothalamic-Pituitary-Adrenal Stress Axis in Fibromyalgia. Fibromyalgia Syndrome: An interdisciplinary challenge of Basic and Clinical Science. Bad Nauheim, Germany
- June 1998 Specific COX-2 Inhibition - Implications in Arthritis and Pain Management. XII Panamerican Congress of Rheumatology Meeting. Montreal, Canada
- Sept 1998 COX-2 Expression and Regulation in Synovial Tissues. Scientific Symposium, 28th Congress of the German Society of Rheumatology. The concept of COX-2-inhibition. Baden-Baden, Germany
- Oct 1998 Role of COX-2 in Synovial Tissues. The Promise of Specific COX-2 Inhibition by Novel Agents. William Harvey Conference. Cannes, France
- Oct 1998 Role of COX-2 in Synovial Tissues. OARS Workshop on NO & COX in Osteoarthritis. International Satellite Symposium. Florence, Italy
- June 1999 Biology of COX-2: Application to the Treatment of Arthritis. Toronto Intricacy Rheumatology Rounds. Toronto, Canada
- June 1999 Transcriptional Regulation of COX-2 in Rheumatoid Synoviocytes. Rheumatology Research Seminar. University of Toronto. Toronto, Canada
- June 1999 COX-2 Expression, Regulation, and Inhibition. The Role of COX-2 in Health and Disease, Satellite Symposium to the 4th World Congress on Inflammation. Paris, France
- Sept 1999 Expression and regulation of COX-2 in synovial tissues. Scandinavian COX-2 Symposium. Nobel Forum. Karolinska Institutet. Stockholm, Sweden
- Oct 1999 Expression and regulation of COX-2 in synovial tissues. William Harvey Conferences on the Potential of Specific COX-2 Inhibition. Lisbon, Portugal
- April 2001 Fibromyalgia: A neuroendocrine disorder? British Society of Rheumatology. Edinburgh, Scotland
- Nov 2002 New developments in prostaglandin biology: Implications for treatment of arthritis. University of Manitoba, Winnipeg, Manitoba, Canada
- Sept 2003 The role of mPGES-1 for prostaglandin E2 production in primary human synovial cells. Global Arthritis Research Network Annual Meeting. Miyazaki, Japan
- Oct 2003 Prostaglandin synthesis in arthritis: Implications for treatment. Irish Society for Rheumatology Annual General Meeting. Dublin, Ireland
- Oct 2003 Fibromyalgia: Where we stand on pathophysiology and treatment in 2003. Irish Rheumatology Health Professionals Society Annual General Meeting, Dublin, Ireland
- July 2004 Fibromyalgia: Novel drug therapies. Myopain '04. Munich, Germany
- July 2004 New developments in prostaglandin biology. University of Regensburg. Regensburg, Germany
- July 2004 New treatments for fibromyalgia syndrome. University of Regensburg. Regensburg, Germany
- Nov 2004 New treatments for fibromyalgia syndrome. Chilean Rheumatism Society. Chillan, Chile

- Nov 2004 Update on the biology of fibromyalgia syndrome. Chilean Rheumatism Society. Chillan, Chile
- Dec 2005 Beyond COX-2: New understanding of prostaglandin biology. Center of Molecular Medicine. Karolinska Institutet. Stockholm, Sweden
- May 2006 Current and Emerging Strategies for the Pharmacologic Management of Fibromyalgia (Satellite Symposium). Fibromyalgia: Scientific Advances to Reduce the Burden of Illness. Annual meeting of the American Psychiatric Association. Toronto, Canada
- Aug 2006 New Insights into the Fibromyalgia Syndrome. Scandinavian Rheumatism Society Biannual Meeting. Reykjavik, Iceland
- June 2007 Neuroendocrine Perturbations in Fibromyalgia and Chronic Fatigue Syndrome. EULAR 2007 Annual Meeting. Barcelona, Spain
- June 2007 Fibromyalgia: New Frontiers in Diagnosis and Treatment (Satellite Symposium). Targeting new directions in the treatment of fibromyalgia. EULAR 2007 Annual Meeting. Barcelona, Spain
- June 2008 Fibromyalgia. EULAR 2008 Annual Meeting. Paris, France

XIV. Research and/or Scholarship

Publications

Peer Reviewed Publications

1. Chesney CM, Pifer DD, Crofford LJ, Huch KM. Reevaluation of the role of the polar groups of collagen in the platelet-collagen interaction. *Am J Pathol* 1983; 112:200-206.
2. Crofford LJ, Rader JI, Dalakas MC, Hill RH, Jr., Page SW, Needham LL, Brady LS, Heyes MP, Wilder RL, Gold PW, Chrousos GP, Sternberg EM. L-tryptophan implicated in human eosinophilia-myalgia syndrome causes fasciitis and perimyositis in the Lewis rat. *J Clin Invest* 1990; 86:1757-1763.
3. Crofford LJ, Brahim JS, Zasloff MA, Marini JC. Failure of surgery and isotretinoin to relieve jaw immobilization in fibrodysplasia ossificans progressive: report of two cases. *J Oral Maxillofac Surg* 1990; 48:204-208.
4. Wilder RL, Case JP, Crofford LJ, Kumkumian GK, Lafyatis R, Remmers EF, Sano H, Sternberg EM, Yocum DE. Endothelial cells and the pathogenesis of rheumatoid arthritis in humans and streptococcal cell wall arthritis in Lewis rats. *J Cell Biochem* 1991; 45:162-166.
5. DeSchryver-Kecskemeti K, Gramlich TL, Crofford LJ, Rader JI, Page SW, Needham LL, Hill RH, Jr., Sternberg EM. Environmental pathology. Mast cell and eosinophil infiltration in intestinal mucosa of Lewis rats treated with L-tryptophan implicated in human eosinophilia myalgia syndrome. *Mod Pathol* 1991; 4:354-357.
6. Sano H, Hla T, Maier JA, Crofford LJ, Case JP, Maciag T, Wilder RL. In vivo cyclooxygenase expression in synovial tissues of patients with rheumatoid arthritis and osteoarthritis and rats with adjuvant and streptococcal cell wall arthritis. *J Clin Invest* 1992; 89:97-108.
7. Cash JM, Crofford LJ, Gallucci WT, Sternberg EM, Gold PW, Chrousos GP, Wilder RL. Pituitary-adrenal axis responsiveness to ovine corticotropin releasing hormone in patients with rheumatoid arthritis treated with low dose prednisone. *J Rheumatol* 1992; 19:1692-1696.
8. Cash JM, Swain M, Di Bisceglie AM, Wilder RL, Crofford LJ. Massive intrahepatic hemorrhage following routine liver biopsy in a patient with rheumatoid arthritis treated with methotrexate. *J Rheumatol* 1992; 19:1466-1468.

9. Remmers EF, Goldmuntz EA, Cash JM, Crofford LJ, Misiewicz-Poltorak B, Zha H, Wilder RL. Genetic map of nine polymorphic loci comprising a single linkage group on rat chromosome 10: evidence for linkage conservation with human chromosome 17 and mouse chromosome 11. *Genomics* 1992; 14:618-623.
10. Crofford LJ, Sano H, Karalis K, Webster EL, Goldmuntz EA, Chrousos GP, Wilder RL. Local secretion of corticotropin-releasing hormone in the joints of Lewis rats with inflammatory arthritis. *J Clin Invest* 1992; 90:2555-2564.
11. Cash JM, Remmers EF, Goldmuntz EA, Crofford LJ, Zha H, Hansen CT, Wilder RL. Genetic mapping of the athymic nude (RNU) locus in the rat to a region on chromosome 10. *Mammalian Genome* 1993; 4:37-42.
12. Remmers EF, Goldmuntz EA, Cash JM, Zha H, Crofford LJ, Misiewicz-Poltorak B, Mathern P, Wilder RL. Map of seven polymorphic markers on rat chromosome 14: linkage conservation with human chromosome 4. *Mamm Genome* 1993; 4:90-94.
13. Sano H, Engleka K, Mathern P, Hla T, Crofford LJ, Remmers EF, Jersema CL, Goldmuntz E, Maciag T, Wilder RL. Co-expression of phosphotyrosine-containing proteins, platelet-derived growth factor-B, and fibroblast growth factor-1 in situ in synovial tissues of patients with rheumatoid arthritis and Lewis rats with adjuvant or streptococcal cell wall arthritis. *J Clin Invest* 1993; 91:553-565.
14. Goldmuntz EA, Wilder RL, Goldfarb Y, Cash JM, Zha H, Crofford LJ, Mathern P, Hansen CT, Remmers EF. The origin of the autoimmune disease-resistant LER rat: an outcross between the buffalo and autoimmune disease-prone Lewis inbred rat strains. *J Neuroimmunol* 1993; 44:215-219.
15. Love LA, Rader JI, Crofford LJ, Raybourne RB, Principato MA, Page SW, Trucksess MW, Smith MJ, Dugan EM, Turner ML, et al. Pathological and immunological effects of ingesting L-tryptophan and 1,1'-ethylidenebis (L-tryptophan) in Lewis rats. *J Clin Invest* 1993; 91:804-811.
16. Zha H, Wilder RL, Goldmuntz EA, Cash JM, Crofford LJ, Mathern P, Remmers EF. Linkage map of 10 polymorphic markers on rat chromosome 2. *Cytogenet Cell Genet* 1993; 63:117-123.
17. Remmers EF, Goldmuntz EA, Sha H, Crofford LJ, Cash JM, Mathern P, Du Y and Wilder RL. Linkage map of seven polymorphic markers on rat chromosome 18. *Mamm Genome* 1993; 4:265-270.
18. Goldmuntz EA, Remmers EF, Sha H, Cash JM, Mathern P, Crofford LJ and Wilder RL. Genetic map of 12 polymorphic loci comprising three linkage groups on rat chromosome 1. *Genomics* 1993; 16:761-764.
19. Mathern P, Goldmuntz EA, Zha H, Du Y, Crofford LJ, Wilder RL and Remmers EF. Four polymorphic markers on rat chromosome 12 form a single linkage group. *Biochemical Genetics*, 1993; 31:441-448.
20. Goldmuntz EA, Remmers EF, Zha H, Mathern P, Du Y, Crofford LJ and Wilder RL. Genetic map of seven polymorphic markers comprising a single linkage group on rat chromosome 5. *Mamm Genome*, 1993; 4:670-675.
21. Remmers EF, Goldmuntz EA, Zha H, Mathern P, Du Y, Crofford LJ and Wilder RL. Linkage map of nine loci defined by polymorphic DNA markers assigned to rat chromosome 13. *Genomics*, 1993; 18:277-282.
22. Crofford LJ, Karalis K, Sano H, Friedman T, Epps H, Remmers EF, Mathern P, Chrousos GP and Wilder RL. Corticotropin-releasing hormone in synovial fluids and tissues of patients with rheumatoid arthritis and osteoarthritis. *J Immunol* 1993; 151:1587-1596.
23. Donnelly RP, Crofford LJ, Remmers EF, Obiri N, Fenton MJ, Wilder RL. Tissue-specific regulation of IL-6 production by IL-4: Differential effects of IL-4 on monocytes and

fibroblasts. *J Immunol* 1993; 151:5603-5612.

24. Crofford LJ, Wilder RL, Remmers EF, Epps, HR and Hla T. Cyclooxygenase-1 and -2 expression in rheumatoid synovial tissues: Effects of interleukin-1 α , phorbol ester, and corticosteroids. *J Clin Invest* 1994; 93:1095-1101.
25. Du Y, Remmers EF, Goldmuntz EA, Zha H, Crofford LJ and Wilder RL. Simple sequence repeat length polymorphisms mapped to rat chromosome 11. *Cytogenet Cell Genet* 1994; 65:186-189.
26. Mathern P, Goldmuntz EA, Du Y, Zha H, Cash JM, Crofford LJ, Wilder RL and Remmers EF. Nine polymorphic markers identified by polymerase chain reaction techniques map to rat chromosome 8. *Cytogenet Cell Genet* 1994; 66:283-286.
27. Zha H, Remmers EF, Du Y, Goldmuntz EA, Mathern P, Zhang H, Cash JM, Crofford LJ and Wilder RL. A single linkage group comprising 11 polymorphic DNA markers on rat chromosome 3. *Mammal Genome* 1994; 5: 538-541.
28. Crofford LJ, Pillemar SR, Kalogeros K, Cash JM, Michelson D, Kling MA, Sternberg EM, Gold PW, Chrousos GP and Wilder RL. Hypothalamic-pituitary adrenal axis perturbations in patients with fibromyalgia. *Arthritis Rheum* 1994; 37: 1583-92.
29. Michelson D, Page SW, Casey R, Trucksess MW, Love LA, Milstien S, Wilson C., Massaquoi SG, Pranzatelli M, Crofford LJ, Hallett M, Gold, PW and Sternberg EM. An eosinophilia-myalgia syndrome related disorder associated with exposure to L-5-hydroxytryptophan. *J Rheumatol* 1994; 21: 2261-5.
30. Du Y, Remmers EF, Goldmuntz EA, Zha H, Mathern P, Crofford LJ and Wilder RL. Simple sequence repeat length polymorphisms mapped to rat chromosome 11. *Cytogenet Cell Genet* 1994;65:186-189.
31. Brady LS, Page SW, Thomas FS, Rader JI, Lynn AB, Polterak B, Zelazowski E, Crofford LJ, Zelazowski P, Smith C, Raybourne RB, Love LA, Gold PW and Sternberg ES. 1,1'-Ethylenebis [L-tryptophan] (EBT), a contaminant implicated in L-tryptophan eosinophilia myalgia syndrome, suppresses mRNA expression of hypothalamic corticotropin-releasing hormone in Lewis (LEW/N) rat brain. *Neuroimmunomodulation* 1994; 1:59-65.
32. Du Y, Remmers EF, Zha H, Goldmuntz EA, Mathern P, Crofford LJ and Wilder RL. Genetic map of eight microsatellite markers comprising two linkage groups on rat chromosome 6. *Cytogenet Cell Genet* 1995; 68:107-111.
33. Zha H, Remmers EF, Du Y, Cash JM, Goldmuntz EA, Crofford LJ and Wilder RL. The rat athymic nude (run) locus is closely linked to the inducible nitric oxide gene (Nos2). *Mammalian Genome*. *Mammalian Genome* 1995; 6:137-138.
34. Wilborn J, Crofford LJ, Burdick MD, Kunkel SL, Strieter RM and Peters-Golden M. Cultured lung fibroblasts isolated from patients with idiopathic pulmonary fibrosis have a diminished capacity to synthesize prostaglandin E2 and to express cyclooxygenase-2. *J Clin Invest* 1995; 95:1861-1868.
35. Ben-Av P, Crofford LJ, Wilder RL and Hla T. Induction of vascular endothelial growth factor expression in synovial fibroblasts by prostaglandin E and interleukin-1: A potential mechanism for inflammatory angiogenesis. *FEBS Lett* 1995; 372(1):83-87.
36. Pando JA, Gourley MF, Klippel, JH, Wilder RL and Crofford LJ. Hormonal supplementation as treatment for cyclical rashes in patients with SLE. *J Rheumatol* 1995; 22:2159-2162.
37. Goldmuntz EA, Remmers EF, Du Y, Zha H, Mathern P, Crofford LJ and Wilder RL. Genetic map of 16 polymorphic markers forming three linkage groups assigned to rat chromosome 4. *Mamm Genome* 1995; 6:459-463.
38. Karalis K, Crofford LJ, Wilder RL and Chrousos GP. Glucocorticoid and/or glucocorticoid antagonist effects in inflammatory disease-susceptible Lewis and -resistant Fischer rats.

Endocrinology 1995; 136:3102-3112.

39. Tsai C, Diaz LA Jr., Singer N, Li LL, Kirsch AH, Mitra R, Nickoloff B, Crofford LJ, and Fox DA. Human T lymphocytes respond to bacterial superantigens presented by cultured rheumatoid arthritis synoviocytes. *Arthritis Rheum* 1996;39:125-136.
40. Crofford LJ, Tan B, McCarthy CJ, and Hla T. NF- κ B is involved in early transcriptional regulation of the human cyclooxygenase-2 gene by interleukin-1 β in rheumatoid synoviocytes. *Arthritis Rheum* 1997; 40:226-236.
41. Crofford LJ, Kalogeras KT, Mastorakos G, Magiokou M-A, Wells J, Kanik KS, Chrousos GP and Wilder RL. Circadian relationships between interleukin (IL)-6 and hypothalamic-pituitary-adrenal axis hormones: Paradoxical failure of IL-6 to cause sustained hypercortisolism in patients with early untreated rheumatoid arthritis. *J Clin Endocrinol Metab* 1997; 82:1279-1283.
42. Zasloff MA, Rocke DM, Crofford LJ, Kaplan FS. Treatment of patients who have fibrodysplasia ossificans progressive with 13-cis-retinoic acid (isotretinoin). *Clin Orthopaedics Rel Res* 1997; 346:121-129.
43. Jacobson JD, Crofford LJ, Baker JC, Wilder RL. Cyclical expression of GnRH receptor mRNA on lymphoid organs. *Neuroendocrinology* 1998;67:117-125.
44. Korszun A, Papadopoulos E, Demitrack M, Engleberg NC, Crofford LJ. The relationship of temporomandibular disorders and stress-associated syndromes. *Oral Surg Oral Med Oral Pathol Radiol Endod* 1998; 86: 416-420.
45. Crofford LJ. Neuroendocrine abnormalities in fibromyalgia and related disorders. *Am J Med Sci* 1998; 315:359-366.
46. DuBois RN, Abramson SB, Crofford LJ, Gupta RA, Simon LS, van de Putte LBA, Lipsky PE. Cyclooxygenase in biology and disease. *FASEB J* 1998; 12:1063-1073.
47. Lipsky PE, Abramson SB, Crofford LJ, DuBois RN, Simon LS, van de Putte LBA. The classification of cyclooxygenase inhibitors. *J Rheumatol* 1998; 25:2298-2303.
48. Crofford LJ, Jacobson JD, Young EA. Modeling the involvement of the hypothalamic-pituitary-adrenal (HPA) and -gonadal (HPG) axes in autoimmune and stress-related rheumatic syndromes in women. *J Women's Health* 1999; 565-577.
49. McCarthy CJ, Crofford LJ, Greenson J, Scheiman JM. Cyclooxygenase-2 expression in gastric antral mucosa before and after eradication of helicobacter pylori infection. *Am J Gastroenterology* 1999; 94:1218-1223.
50. Korszun A, Engleberg NC, Papadopoulos E, Brucksch C, Haus E, Lundeen L, Smolensky M, Crofford LJ. Melatonin levels in women with fibromyalgia and chronic fatigue syndrome. *J Rheumatol* 1999; 26:2675-2680.
51. Crofford LJ, Lipsky PE, Brooks P, Abramson SB, Simon LS, van de Putte LBA. Cyclooxygenase-2 (COX-2): Basic biology and clinical application of specific COX-2 inhibitors. *Arthritis Rheum* 2000; 43:4-13.
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Grant Activity

Current

I.D. Number: NIH/NIAMS – 1 R01 AR049010
Role: Principal Investigator
Title: Prostaglandin E Synthase in Rheumatoid Arthritis
Effort: 2.4 calendar months
Total Project Period: 11/01/04-10/31/09 (No cost extension)
Total Direct Costs: \$750,000

I.D. Number: NIH/NIAID/DAIT - N01 AI05419 (Sullivan, PI Duke Univ)
Role: Site Principal Investigator, Overall Study Steering Committee
Title: Scleroderma: Cyclophosphamide or Transplant (SCOT)
Effort: 0.6 calendar months
Total Project Period: 09/01/05-08/31/13
Total Direct Costs: \$100,000

I.D. Number: NIH/NIAMS N01 AR42274 (Oddis, PI University of Pittsburg)
Role: Site Principal Investigator
Title: Rituximab in Myositis (RIM)
Effort: 0.18 calendar months
Total Project Period: 09/01/05-08/31/13
Total Direct Costs: \$97,500

I.D. Number: 1 R01 AR053207-02
Role: Co-investigator/Site PI (L Arnold, PI. Univ Cincinnati)
Title: Development of a Fibromyalgia Responder Index
Effort: 1.8 calendar months
Total Project Period: 11/1/07-10/31/10
Total Direct Costs: \$525,000

I.D. Number: Allergan
Role: Site Principal Investigator
Title: A Multicenter, Multiple Dose, Double-Blind, Randomized, Placebo-Controlled, Parallel Group Study of the Safety and Efficacy of AGN 203818 in Female Patients with Fibromyalgia Syndrome
Effort: 0.24 calendar months
Total Project Period: 07/01/07-06/30/09
Total Direct Costs: \$61,590

I.D. Number: 1 R01 HL082835 (King, PI)
Role: Co-Investigator
Title: The role of Prostaglandin E2 in Angiotensin II-induced vascular disease
Effort: 0.6 calendar months
Total Project Period: 11/01/07-10/31/11
Total Direct Costs: \$250,000

I.D. Number: Univ of Cincinnati Subcontract (Arnold, PI)
Role: Co-Investigator
Title: Development and testing of a fibromyalgia diagnostic

screening instrument for primary care
Effort: 0.15 calendar months
Total Project Period: 07/01/07-06/30/09
Total Direct Costs: \$9,124

Pending

I.D. Number: NIH/NCRR COBRE (Ebersole, PI)
Role: Project co-investigator
Title: Center for the Biologic Basis of Oral/Systemic Disease (CBBOSD)
Effort: 0.60 calendar months
Project Period: 7/1/2009 – 6/30/2015 (5 years)
Funding Req. \$7,497,684 (Directs)
\$11,124,246 (Total)

I.D. Number: NIH/NIAMS – 1 R01 AR049010
Role: Principal Investigator
Title: Prostaglandin E Synthase in Rheumatoid Arthritis
Effort: 2.4 calendar months
Total Project Period: 11/01/09-10/31/2014
Funding Req: \$1,000,000

I.D. Number: NIH/NIA – R21 AG034279
Role: Co-Principal investigator with Charlotte Peterson, PhD
Title: Contribution of altered muscle hemodynamics to fatiguability of older persons with and without fibromyalgia
Total Project Period: 7/1/2009-6/30/2012
Funding Req. \$500,000
Effort: 0.60 calendar months

Past

I.D. Number: Boehringer-Ingelheim
Role: Site Principal Investigator
Title: A randomized, double-blind, placebo-controlled, dose titration, efficacy and safety study of Pramipexole ER (0.75 mg to 4.5 mg) administered orally once daily versus placebo over a 16-week maintenance phase in patients diagnosed with fibromyalgia as assessed by the American College of Rheumatology (ACR) criteria, followed by a 24-week open-label extension phase (II/III)
Effort: 0.24 calendar months
Total Project Period: 07/15/08-06/30/10
Total Direct Costs: \$120,000

I.D. Number: HEEL Subcontract (Scutchfield, PI)
Role: Co-Principal Investigator (with Leigh Ann Simmons, PhD)
Title: The effects of a women's mental health awareness campaign on health outcomes
Effort: 0.60 calendar months
Total Project Period: 07/01/07-06/30/08
Total Direct Costs: \$200,000

I.D. Number: Wyeth
Role: Site Principal Investigator
Title: A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Adaptive-Design, Efficacy and Tolerability Study of 4 Fixed Oral Doses or DVS SR in Adult Outpatients with Fibromyalgia Syndrome
Effort: 0.18 calendar months
Total Project Period: 04/01/06-03/31/08
Total Direct Costs: \$50,000

I.D. Number: NIH/NCRR M01 RR002602-22 (Perman, PI)
 Role: Program Director
 Title: General Clinical Research Center
 Effort: 4.8 calendar months
 Total Project Period: 04/01/06-03/31/08
 Total Direct Costs: \$1,700,000

I.D. Number: Pfizer
 Role: Site Principal Investigator
 Title: Long-term treatment of chronic musculoskeletal pain
 Effort: 2%
 Total Project Period: 09/01/05-08/31/06
 Total Direct Costs: \$20,000

I.D. Number: NIH/NIAMS – K24 AR02139
 Role: Principal Investigator
 Title: Central and Peripheral Neuroendocrine Function in
 Fibromyalgia
 Effort: 40%
 Total Project Period: 07/01/00 – 06/31/06 (no cost extension)
 Total Direct Costs: \$401,671

I.D. Number: Arthritis Foundation Biomedical Sciences Grant
 Role: Principal Investigator
 Title: Microsomal Prostaglandin E Synthase in Rheumatoid
 Arthritis
 Effort: 10%
 Total Project Period: 07/01/02 – 06/30/05
 Total Direct Costs: \$243,000

I.D. Number: Pfizer, Investigator Initiated Research Grant
 Role: Co-Investigator (Previously PI, transferred to Chervin)
 Title: Evaluation of Sleep Dysfunction in Fibromyalgia
 Effort: 0%
 Total Project Period: 02/01/03 – 01/31/05
 Total Direct Costs: \$22,000 (GCRC supported)

I.D. Number: Michigan Chapter Arthritis Foundation
 Role: Co-Investigator (Previously PI, Transferred to Chervin)
 Title: Quantitative analysis of the sleep disorder in
 fibromyalgia syndrome
 Total Project Period: 07/01/04 – 6/30/05
 Total Direct Costs: \$30,000

I.D. Number: ACR/REF Physician Scientist Training Award
 Role: Principal Investigator/Mentor (Seetha Monrad)
 Title: The role of microsomal prostaglandin E synthase-1 (mPGES-1) and
 mPGES-1-derived prostaglandin E₂ in shaping the immune response
 and regulating autoimmunity
 Total Project Period: 7/1/04 – 6/30/07
 Total Direct Costs: \$150,000

I.D. Number: Pfizer
 Role: Principal Investigator
 Title: A phase 2, double-blind, randomized, placebo-
 controlled, 3-parallel group, multicenter, 12-week study to assess the
 efficacy and safety of CP-424,391 in fibromyalgia patients”
 Effort: 0%
 Total Project Period: 01/01/04 – 12/31/04
 Total Direct Costs: \$48,272

I.D. Number: American College of Rheumatology/REF
 Role: Principal Investigator
 Title: Fellowship Training Award

Effort: 0%
Total Project Period: 07/01/04 – 06/30/05
Total Direct Costs: \$25,000

I.D. Number: Amgen
Role: Principal Investigator
Title: Rheumatology Fellowship Training Award
Effort: 0%
Total Project Period: 07/01/03-06/30/04
Total Direct Costs: \$25,000

I.D. Number: University of Michigan Venture Investment Fund 097
Role: Co-investigator (Kevin T. McDonagh, M.D., PI)
Title: Stem Cell Transplantation for Autoimmune Disease
Effort: 10%
Total Project Period: 04/01/00 – 03/31/05
Total Direct Costs: \$270,000

I.D. Number: NIH 1-RO1 AR46045-02
Role: Co-Investigator (Kenneth L. Casey, Principal Investigator)
Title: Forebrain mechanisms in chronic, non-neuropathic pain
Effort: 2%
Total Project Period: 09/30/00 – 08/31/04
Total Direct Costs: \$838,364

I.D. Number: T32 AR0780-27
Role: Principal Investigator
Title: Training of Arthritis Research Scientists
Effort: 10%
Total Project Period: 05/01/02 – 04/30/07
Total Direct Costs: \$1,206,500

I.D. Number: NIH – R21 AR46985
Role: Principal Investigator
Title: Role of synoviocyte Rho-type GTPases in cartilage destruction
Effort: 8%
Total Project Period: 04/01/00 – 03/31/04
Total Direct Costs: \$225,000

I.D. Number: American College of Rheumatology/REF
Role: Principal Investigator
Title: Fellowship Training Award
Effort: 0%
Total Project Period: 07/01/02 – 06/30/03
Total Direct Costs: \$25,000

I.D. Number: Lilly
Role: Principal Investigator
Title: Duloxetine versus placebo in the treatment of fibromyalgia patients with or without major depressive disorder (Protocol F1D-US-HMBO)
Effort: 0%
Total Project Period: 08/1/01-09/30/02
Total Costs: \$84,974

I.D. Number: 2 RO1 AR43148-04
Role: Principal Investigator
Title: HPA Axis Dysregulation in Fibromyalgia
Effort: 10%
Total Project Period: 09/30/98-08/31/02
Total Direct Costs: \$845,317

I.D. Number: Arthritis Foundation
Role: Mentor for Dr. Brent Appleton, Physician Scientist
Development Award
Title: Cerebrospinal fluid neuropeptides in Fibromyalgia:
Correlation with clinical response to tricyclic compounds
Effort: 0%
Total Project Period: 7/1/99-6/30/02
Total Direct Costs: \$150,000

I.D. Number: Warner Lambert, Parke-Davis
Role: Principal Investigator
Title: Evaluation of MEK1 inhibitors in rheumatoid synovial
tissues
Effort: 0%
Total Project Period: 10/15/99 – 03/15/02
Total Costs: \$62,400

I.D. Number: Arthritis Foundation, MI Chapter Grant
Role: Principal Investigator
Title: Mechanisms underlying cytokine induction of COX-2 and
PGE synthase in RA synoviocytes
Effort: 5%
Total Project Period: 01/01/00-12/31/01
Total Direct Costs: \$15,000

I.D. Number: Parke-Davis 1008-033
Role: Principal Investigator
Title: Pregabalin open-label extension safety trial in patients
with chronic pain (Protocol 1008-033)
Effort: 0%
Total Project Period: 10/1/99-09/30/01
Total Costs: \$25,174

I.D. Number: Parke-Davis 1008-105
Role: Principal Investigator
Title: An 8-week randomized, double-blind placebo-controlled,
monotherapy trial of pregabalin for pain associated with fibromyalgia
Effort: 0%
Total Project Period: 10/1/99-09/30/00
Total Costs: \$57,522

I.D. Number: Arthritis Foundation
Role: Co-Investigator (Denise Park, Ph.D., Principal
Investigator)
Title: Cognitive and neurochemical function in fibromyalgia
Effort: 3%
Total Project Period: 07/01/98-6/30/01
Total Direct Costs: \$293,691

I.D. Number: Multipurpose Arthritis and Musculoskeletal Diseases Center
(David A. Fox, M.D., Principal Investigator)
Role: Co-Investigator, Subproject (Denise C. Park, Ph.D., PI)
Title: Cognitive and neurochemical function in fibromyalgia
Effort: 5%
Total Project Period: 01/01/98-12/31/00
Total Direct Costs: \$189,340

I.D. Number: Bayer Corporation
Role: Principal Investigator
Title: A multi-center, double-blind, placebo controlled, group-
comparison study to investigate the efficacy, tolerability and safety of BAY
12-9566 as compared to placebo, in the treatment of patients with mild to
moderate osteoarthritis of the knee, over 3 years.

Effort: 5%
Total Project Period: 09/15/98-09/14/00
Total Direct Costs: \$143,859

I.D. Number: Michigan Chapter, Arthritis Foundation
Role: Principal Investigator
Title: Evaluation of E-series prostaglandin receptors in RA and
OA synoviocytes.

Effort: 5%
Total Project Period: 1/1/98 – 12/31/98
Total Direct Costs: \$10,000

I.D. Number: P50 HL56402 (Galen Toews, M.D., Principal Investigator.)
Role: Co-investigator, Subproject 2 (Marc Peters-Golden, PI)
Title: Deficient cyclooxygenase expression in IPF fibroblasts
Effort: 5%
Total Project Period: 12/1/96-11/30/01
Total Direct Costs: \$765,119

I.D. Number: Michigan Chapter, Arthritis Foundation
Role: Principal Investigator
Title: Transcriptional regulation of the human
cyclooxygenase-2 gene by the HTLV-I Tax₁ protein

Effort: 5%
Total Project Period: 01/01/96-12/31/96
Total Direct Costs: \$10,000

I.D. Number: 5 K08 AR01943-01
Role: Principal Investigator
Title: Mechanisms of immune modulation by corticotropin-
releasing hormone.

Effort: 80%
Total Project Period: 7/1/94-6/30/99
Total Direct Costs: \$420,000

I.D. Number: Arthritis Foundation Arthritis Investigator Award
Role: Principal Investigator
Title: Regulation of the cyclooxygenase-2 gene in human
synovial tissues.

Effort: 15%
Total Project Period: 7/1/94-6/30/97
Total Direct Costs: \$150,000

XV. Other

2003-2007 American Board of Internal Medicine/Rheumatology