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CURRICULUM VITAE

Robert Thornham Spencer, M.D.

Personal Information

Marital Status: Married, wife: Tammy Spencer
Children: Matthew, Madeline

Current Position and Address

Clinical Private Practice: 02/01/1998 to present

Colorado Arthritis Center, P.C.
Osteoporosis Center of South Denver, P.C.
701 E. Hampden Ave., Suite 410
Englewood, CO 80113

Colorado Arthritis Center, P.C.
Renewal Medical Center
9695 S. Yosemite St., Suite 360
Lone Tree, CO 80124

Rocky Mountain Youth Clinic
9197 Grant St., Suite 120
Thronton, CO 80229

Colorado Arthritis Center, P.C.
6169 S. Balsam Way
Littleton, CO 80126

Present Academic Rank and Position

Clinical Associate Professor of Medicine
Division of Rheumatology
University of Colorado Denver, School of Medicine

Educational Background

1982-1986	Doctor of Medicine. University of Oklahoma School of Medicine. Oklahoma City, Oklahoma
1979-1982	University of Oklahoma. Norman, Oklahoma. Major: Microbiology. Admitted to medical school after junior year prior to completing degree.

Postgraduate Training and Employment

1992-1997	Assistant Professor of Medicine Division of Rheumatology Practice Director, University Rheumatology Practice Co-director, University Scleroderma Clinic University of Colorado Health Sciences Center 4200 East Ninth Avenue, Box B-115 Denver, CO 80262
1990-1992	Fellowship in Rheumatology, University of Colorado Health Sciences Center, Denver, Colorado.

1989-1990	Staff Internist. Department of Medicine, Geriatrics Section, Denver Veteran Affairs Medical Center. Denver, Colorado. Clinical Instructor, University of Colorado School of Medicine.
1986-1989	Internal Medicine Residency. University of Colorado Health Sciences Center. Denver, Colorado

Board Certification

American Board of Internal Medicine, Sept. 1989. #127802

American Board of Internal Medicine, Rheumatology, Nov. 1992. #127802; Recertification completed 11/2002 and 11/2012.

Licensure

Colorado State Medical Licensure, 1988-Present

Awards and Honors

Undergraduate:

Alpha Lambda Delta

Phi Eta Sigma

Alpha Epsilon Delta (Premedical Honor Society)

Mortar Board

President's Honor Roll (4.0 grade average) 5 of 6 semesters

Graduate:

Graduation with Special Distinction (3.9 grade average), University of Oklahoma School of Medicine

Alpha Omega Alpha Medical Honor Society

Ernest Lachman Award "for outstanding medical student with overall excellence in the anatomical sciences" (highest class grade point average for anatomical sciences courses)

Mosby Scholarship Book Award

Hewlett-Packard Award for outstanding academic achievement

Tulsa County Medical Society Scholarship

Professional Organizations

American College of Physicians, Member

American College of Rheumatology, Fellow

Rocky Mountain Rheumatism Society

Colorado Medical Society

Metabolic Bone Disease Society of Colorado

International Society for Clinical Densitometry (ISCD certification 2000--present)

American Society for Bone and Mineral Research

Professional Activities

Practice Director, University Rheumatology Practice (UCHSC). 1994-1997.

University of Colorado Health Sciences Center: Clinical Practice Committee. 1994-1997

Manuscript reviewer for:	Arthritis and Rheumatism (1995-1997) Clinical Therapeutics (1995-2000)
Community Education Lecturer for:	Arthritis Foundation, Rocky Mountain Chapter
	UCHSC, Public Relations Dept., 1992-1997
	Colorado Front Range Chapter, United Scleroderma Foundation
	Lupus Foundation of Colorarado

Lupus Foundation of Colorado: Health Advisory Board (1998-present); Local chapter grant reviewer, 1999.

Board of Directors, Arthritis Foundation, Denver Chapter; 2001-2004

Invited Speaking Engagements

August 26, 2005. Orthopedic Nurses Association of Colorado Conference. Denver, Colorado. "Rheumatoid arthritis; update regarding diagnosis and treatment."

July 17, 1992. University of Colorado School of Medicine 28th Annual Internal Medicine Program. Estes Park, Colorado. "Indications and interpretation of rheumatology serologic tests."

January 13, 1993: UCHSC Department of Orthopaedics Grand Rounds. "A rheumatologist's approach to the evaluation of monoarticular arthritis of the knee."

July 10, 1995. University of Colorado School of Medicine 31st Annual Internal Medicine Program. Estes Park, Colorado. "Idiopathic inflammatory myopathies: Diagnosis, differential diagnosis, and management."

August 2, 1995: UCHSC Department of Orthopaedics Grand Rounds. "Overview of nonsteroid anti-inflammatory agents."

March 18, 1996: Medical Grand Rounds, Sterling, CO. “Update on Osteoarthritis.”

March 21, 1996: New Directions in Arthritis Therapy: A program for primary care physicians. Denver, CO. Sponsors: Albert Einstein College of Medicine, UCHSC, Pfizer, Inc. “The lab test as marker and monitor.”

March 26, 1996: Medical Grand Rounds, North Colorado Medical Center, Greeley, CO. “Safety and Efficacy of NSAID’s Use in Geriatric Patients.”

July 18, 1997: Medical Grand Rounds, St. Mary Corwin Regional Medical Center, Pueblo, CO. “Osteoarthritis: Approaches to Management.”

September 3, 1997: Grand Rounds, North Suburban Medical Center, Thornton, CO. “Osteoarthritis: Approaches to Management.”

March 25, 1999: Porter Adventist Hospital, Internal Medicine CME Program, Denver, CO. “Antiphospholipid Antibody Syndrome.”

February 17, 2005: Swedish Medical Center, Medical Staff Grand Rounds; Denver, Colorado. "Rheumatoid Arthritis; Treatment Update."

Teaching Activities

Swedish Hospital Family Medicine Residency Program; Preceptor for family practice residents. 1998-2005.

UCHSC Division of Rheumatology; Volunteer Attending Physician. Denver VAMC Rheumatology Clinic. 1997-Present.

UCHSC Physical Therapy Program rheumatology lecture series. 1993,
1994, 1995, 1996, 1997

University of Colorado Medicine Housestaff Internal Medicine Board Review in Rheumatology, 6-93, 4-94, and 4-95.

UCHSC School of Medicine. Second year medical student pathophysiology course, rheumatology section, small group discussion leader. 1991-1997.

UCHSC Department of Medicine. Mortality and Morbidity Conference 8-20-93.

UCHSC Division of Rheumatology monthly resident lectures 1990-1997

UCHSC Division of Rheumatology inpatient consult service: two-three months per year 1992-1997.

UCHSC School of Nursing. Lecture for Primary Health Care of Adults class for Nurse Practitioner students. 12-7-95, 11-14-96.

UCHSC School of Medicine: General Medicine inpatient ward attending: one to two months per year 1989-1990, 1992-1997.

UCHSC Arthritis Clinic, Fellows’ Clinic Attending Physician: One half to one day per week. 1992-1997.

UCHSC Division of Rheumatology Weekly Conferences/Grand Rounds. 1-2 presentations per month 1990-1992 (fellowship); 3-6 presentations per year 1992-1997 (faculty).

UCHSC School of Medicine: Third year medical student preceptor '93, '94, '95.

Publications

Petri MA, Mease PJ, Merrill JT, Lahita RG, Iannini MJ, Yocum DE, Ginzler EM, Katz RS, Gluck OS, Genovese MC, Van Vollenhoven R, Kalunian KC, Manzi S, Greenwald MW, Buyon JP, Olsen NJ, Schiff MH, Kavanaugh AF, Caldwell JR, Ramsey-Goldman R, St Clair EW, Goldman AL, Egan RM, Polisson RP, Moder KG, Rothfield NF, **Spencer RT**, Hobbs K, Fessler BJ, Calabrese LH, Moreland LW, Cohen SB, Quarles BJ, Strand V, Gurwith M, Schwartz KE. Effects of prasterone on disease activity and symptoms in women with active systemic lupus erythematosus.
Arthritis Rheum. 2004 Sep;50(9):2858-68.

Maini R, et al(Spencer R part of study group). Infliximab (chimeric anti-tumour necrosis factor alpha monoclonal antibody) versus placebo in rheumatoid arthritis patients receiving concomitant methotrexate: a randomised phase III trial. ATTRACT Study Group. Lancet. 1999 Dec 4;354(9194):1932-9.

Petri MA, et al (Spencer RT part of study group). Effects of Prasterone on corticosteroid requirements of women with systemic lupus erythematosus **Arthritis Rheumatism** 46(7); 1820, 2002.

Katz JN, Barrett J, Baron JA, Liang MH, Bacon A, Kaplan H, Kieval RI, Lindsey S, Roberts WN, Sheff D, Spencer R, Weaver A. Sensitivity and positive predictive value of Medicare Part B physician claims for rheumatologic diagnoses and procedures. **Arthritis Rheumatism** 40(9):1594, 1997.

Meehan R, Spencer R. Systemic Sclerosis. **Immunology and Allergy Clinics of North America** 13(2):313-34, 1993.

Spencer RT. Osteoarthritis: Degenerative Joint Disease and Aging. **The Older Patient** 4:4-12, 1990.

Abstracts and Presentations

Maloney JP, Voelkel NF, Zamora M, Spencer RT, Collier DH. Plasma vascular endothelial growth factor (VEGF) levels are elevated in patients with systemic sclerosis and rheumatoid arthritis. Presented Oct. 3, 1997 at the International Congress on Scleroderma, Milan, Italy.

Katz JN, Barrett J, Baron JA, Liang MH, Bacon A, Kaplan H, Kieval RI, Lindsey S, Roberts WN, Sheff D, Spencer R, Weaver A. Sensitivity and positive predictive value of Medicare Part B physician claims for rheumatic disorders. **Arthritis Rheum** 39:S73, 1996.

Heller JM, Spencer RT, Collier DH, Badesch DB, Groves BM. Acute hemodynamic response to IV iloprost or prostacycline (PGI2) in patients with pulmonary hypertension associated with systemic sclerosis and other collagen vascular diseases. **Arthritis Rheum** 39:S151, 1996.

Katz JN, Baron JA, Barrett J, Bacon A, Kaplan H, Kieval R, Lindsey S, Roberts WN, Sheff D, Spencer RT, Weaver A, Liang MH. Sensitivity of Medicare B claims for identifying rheumatologic diagnoses. **Arthritis Rheum** 38:S179, 1995.

Spencer RT, Turkevich D, Groves BM, Collier DH. Pulmonary hypertension in systemic sclerosis: Identification by Doppler echocardiography and clinical features. **Arthritis Rheum** 36:S132, 1993.

Textbook Contributions

Spencer RT. Osteonecrosis. In West S (ed.): **Rheumatology Secrets**, Philadelphia, Mosby, 1996, 2001, 2005 (in press).

Spencer RT. Arthrocentesis and synovial fluid analysis. In West S (ed.): **Rheumatology Secrets**, Philadelphia, Mosby, 1996, 2001, 2005 (in press).

Spencer RT. Inflammatory muscle disease. In West S (ed.): **Rheumatology Secrets**, Philadelphia, Mosby, 1996, 2001, 2005 (in press).

Spencer RT, Emlen W, Arend WP: Renal involvement with scleroderma, rheumatoid arthritis, polymyositis, and Sjogren's syndrome. In Schrier R, Gottschalk C (eds.): **Diseases of the Kidney**, Sixth ed. Boston, Little, Brown and Company, 1997.

Rheumatoid Arthritis (Case). In R.W. Schrier (Ed.): **The Internal Medicine Case Book**, First Ed. Boston/New York: Little, Brown and Company, 1994.

Research Activities

A Long-Term Open-Label Study for Subjects Completing a Phase 3 Efficacy and Safety Study of Lesinurad Monotherapy in Subjects with Gout. LIGHT Extension Study. Ardea Biosciences, Inc. November 2012-present.

A Phase 3 Randomized, Double-Blind, Multicenter, Placebo-Controlled, Combination Study to Evaluate the Efficacy and Safety of Lesinurad and Allopurinol Compared to Allopurinol Alone in Subjects with Gout who have had an Inadequate Hypouricemic Response to Standard of Care Allopurinol. CLEAR 1 Study. Ardea Biosciences, Inc. March 2012 to present.

A Phase 3 Randomized, Double-Blind, Multicenter, Placebo-Controlled Study to Assess the Efficacy and Safety of Lesinurad Monotherapy Compared to Placebo in Subjects with Gout and an Intolerance or Contraindication to a Xanthine Oxidase Inhibitor. LIGHT Study. Ardea Biosciences, Inc. March 2012 to present.

A Phase 3 Randomized, Double-Blind, Multicenter, Placebo-Controlled, Combination Study to Evaluate the Efficacy and Safety of Lesinurad and Febuxostat Alone at Lowering Serum Uric Acid and Resolving Tophi in Subjects with Tophaceous Gout. CRYSTAL Study. Ardea Biosciences, Inc. March 2012 to present.

Long-term Allopurinol Safety Study Evaluating Outcomes in Gout Patients. LASSO Study. Ardea Biosciences, Inc. January 2012 to May 2013.

A 26 Week, Double-Blind, Randomized, Placebo-Controlled Study of the Efficacy and Safety of Single Intra-Articular Injection 1.2% Sodium Hyaluronate for Treatment of Painful Osteoarthritis of the Knee, with Optional 26-Week Open-Label Safety Extension. EXXTEND Study. Ferring International Pharmascience Center, U.S., Inc. August 2009 to April 2011.

A Phase 3, Multi-center, Randomized, Double-Blind, Controlled Study of the Long-Term Analgesic Efficacy and Safety of Tanezumab Alone or in Combination with Non-Steroidal Anti-inflammatory Drugs (NSAIDS) versus NSAIDS Alone in Patients with Osteoarthritis of the Knee or Hip. Pfizer Inc. Jan 2009 to July 2010.

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. Boehringer Ingelheim. July 2008 to Oct 2008.

A Phase 3, Randomized, Multicenter, Double-Blind, Allopurinol-Controlled Study Assessing the Efficacy and Safety of Oral Febuxostat in Subjects with Gout. TAP Pharmaceuticals. 2007 to 2008.

A Double-Blind, Randomized, Placebo-Controlled Study of the Efficacy and Safety of EUFLEXXA for the Treatment of Painful Osteoarthritis of the Knee, with an Open-Label Safety Extension. FLEXX Study. Ferring Pharmaceuticals. 2006 to 2008.

A Phase III, Open Label, Long-Term, Safety Study of Tramadol Hydrochloride Extended Release and Meloxicam QD Combination in the Treatment of Moderate to Moderately Severe Pain Associated with Osteoarthritis. Biovail Laboratories International. 2006 to 2008.

A Randomized, Placebo-Controlled, Double-Blind, Multicenter, Parallel-Group, 12 Week Study to Assess the Clinically Effective Dose Range of Etoricoxib and to Assess its Safety and Tolerability in Patients With Rheumatoid Arthritis. Merck & Co. 2005 to 2008.

A Double-Blind, Randomized, Placebo-Controlled, Multi-Dose, Phase III, Parallel Group Study of Tramadol ER for the Management of Moderate to Moderately Severe Chronic Pain of Osteoarthritis of the Hip and Knee in Adults. Cipher Pharmaceuticals Limited. 2005 to 2006.

A Randomized, Double-Blind, Active, Comparator-Controlled, Parallel-Group Study to Evaluate the Safety of Etoricoxib in Patients with Osteoarthritis and Rheumatoid Arthritis. The MEDAL Study. Merck & Co. Completed July 2006.

A Randomized, Double-Blind, Multi-center Study to Evaluate the Tolerability and Effectiveness of Etoricoxib 90 mg q.d. vs. Diclofenac Sodium 50 mg t.i.d. in Patients with Osteoarthritis. EDGE Trial. Merck & Co. Completed ~2004.

A Phase III, Multi-center, Randomized Double-Blind, Placebo-Controlled Clinical Use Study to Evaluate the Safety and Tolerability of BMS-188667 Administered Intravenoulsy to Subjects with Active Rheumatoid Arthritis (RA) with or Without Medical Co-Morbidities Receiving Disease Modifying Anti-Rheumatic (DMARDS) and/or Biologics Approved for RA. Bristol-Meyers Squibb. Completed 2004.

A Multi-Center, Randomized, Double-Blind, Placebo-Controlled Study to Evaluate the Efficacy and Safety of BMS-188667 vs. Placebo in Subjects with Active Rheumatoid Arthritis on Background DMARDS who Have Failed Anti-TNF Therapy. Phase III. Bristol-Meyers Squibb. Completed 2004.

An International, Multi-center, Stratified, Randomized, Double-Blind, Double-Dummy, Parallel-Group, 52-Week Gastrointestinal Clinical Safety Study to Demonstrate that COX189 (400 mg od) Reduces the Risks to Develop Complicated Ulcers as Compared to NSAIDS (naproxen 500 mg bid and ibuprofen 800 mg tid), in

Osteoarthritis Patients. Two Sub-studies: CCOX189-0117 and CCOX189A-2332. Novartis Pharmaceuticals. Completed ~2003.

A placebo-controlled, double-blinded, randomized clinical trial of anti-TNF chimeric monoclonal antibody (cA2) in patients with active rheumatoid arthritis: ATTRACT trial. Centocor, Inc. Study completed.

A phase II study of safety and efficacy of subcutaneous continuous infusion of recombinant human relaxin for 24 weeks in patients with systemic sclerosis with diffuse scleroderma. Connective Therapeutics, Inc. Study completed.

A multicenter, randomized, double-blind, placebo controlled study of GL701 (dehydroepiandrosterone) in female patients with active systemic lupus erythematosus. Genelabs Technologies, Inc. Completed.

Oral Iloprost in Raynaud's secondary to systemic sclerosis: Multicenter trial. Berlex Laboratories. Completed.

An evaluation of varying titration rates of Ultram (tramadol hydrochloride) in subjects with chronic pain of osteoarthritis. Multicenter Phase II-B Study. Ortho-McNeil Pharmaceutical. Completed.

GL701 (dehydroepiandrosterone) as therapy for female patients with mild to moderate systemic lupus erythematosus--Multicenter trial, Genelabs Technologies, Inc. Completed.

IL-2/Diphtheria toxin fusion protein (DAB_{389}IL-2) as therapy for rheumatoid arthritis--Multicenter trial, Seragen, Inc. 1992-1993. Completed.

Cyclosporin A as therapy for rheumatoid arthritis--Multicenter trial, Sandoz Pharaceuticals. 1990-1992. Completed.

Recombinant Human Granulocyte-Macrophage Colony Stimulating Factor as Therapy in 5q Minus Syndrome. (Unpublished)

In vitro Effects of Cryptococcus neoformans Serotype A Sensitized Lymphocytes on other Serotypes of C. neoformans. Presented to the 1982 Mid-Winter Collegiate Academy of the Oklahoma Academy of Science.