



University of Missouri-Columbia Rheumatology Fellowship Program

Division of Rheumatology

The Division Rheumatology represents over 40 years of excellence in the treatment of patients and education of fellows in the field of rheumatology. The division cares for patients at the hospital and clinics at University of Missouri Healthcare and Harry S. Truman VA outpatient facilities. Our patients receive infusions at Ellis Fischell Cancer Center. Musculoskeletal ultrasound and crystal microscopy are available in the outpatient clinic.



<u>Deanna Davenport, FNP-BC</u>: Clinical nurse practitioner, works independently and along with fellows and faculty. Her clinical interests include rheumatoid arthritis and fibromyalgia.



<u>Darcy Folzenlogen MD, FACP</u>: Professor of Clinical Medicine and Child Health, Medical Director of ANA lab, Clinical Professor Emeritus.



<u>Cheryl McGowan, FNP-BC:</u> Family nurse practitioner, sees patients with fibromyalgia, gout, osteoarthritis and rheumatoid arthritis.



<u>Chokkalingam Siva MD, MS, FACP</u>: Professor of Clinical Medicine, Fellowship Program Director, member of the Department of Medicine quality assurance committee, Medical Director of ANA lab.



<u>Celso Velázquez MD</u>: Professor of Clinical Medicine, Division Director, co-creator and facilitator of the ROSCE, Medical Director of ANA lab, member of the Department of Medicine research council and Director of Problem-Based Learning case development at the University of Missouri School of Medicine.

Fellowship Program

The primary mission of the rheumatology fellowship program at the University of Missouri-Columbia is to train outstanding clinical rheumatologists. Our fellows get extensive exposure to a broad spectrum of rheumatic diseases during the two years of clinical training. Fellows learn the presentation, natural history, diagnosis, pathophysiology and treatment of common and uncommon rheumatic diseases. Graduates of our training program are fully prepared to enter independent clinical and academic practice and are in private practice and academic programs throughout the country.

Overview of the Educational Program

Our program has been structured to ensure that the fellows enhance their competencies in all the six ACGME domains of Patient Care, Medical Knowledge, Practice-Based Learning and Improvement, Systems-Based Practice, Professionalism, and Interpersonal Skills. The comprehensive curriculum offers learning opportunities through outpatient and inpatient care, divisional and departmental conferences, participation in research, and independent learning.

Clinical Training

The fellowship program consists of two years of clinical training. Each year the fellows have three continuity clinics at the university hospital and one at the VA hospital. Each fellow does four months of inpatient consult service per year. Electives are available in Physical Medicine and Rehabilitation, Orthopedics, Podiatry, and Pediatric Rheumatology. An ultrasound machine is available and fellows get hands-on experience in the use of ultrasound in the diagnosis and treatment of rheumatic diseases.

Conferences

Case-based clinical conferences are conducted every week where the fellows and faculty present patients with interesting clinical problems. At the QICDS conference (Quality Improvement Case Discussion Series), complex cases involving medical errors, complications, and difficult decision making processes are presented. The conference schedule includes regularly scheduled core curriculum lectures by the faculty, basic science review sessions, board review sessions, journal clubs and seminars given by fellows. Each fellow gives four seminars per year where they present an in-depth discussion of a particular clinical problem and review relevant research literature. In general, fellows get opportunities to attend two or more national or regional conferences during their training.

Research

Every fellow is expected to complete at least one research project resulting in a publication or a poster presentation. Fellows also participate in the divisional QI projects and pharmaceutical clinical trials.

Application Process

Applications for the fellowship positions are accepted through the Electronic Residency Application System (ERAS). We participate in the NRMP match. One or two fellows are accepted per year, with the number alternating each year. There are a total of three fellows training at any given time.

For fellowship inquiries contact:

Fellowship Coordinator Phone: 573-884-8016
One Hospital Drive, CEC302 Fax: 573-882-1380

Clinical Support & Education Building Email: immufellowshipcoordinator@health.missouri.edu

Columbia, MO 65212

Division History



<u>Gordon Sharp MD</u>: Professor Emeritus, provided decades of leadership as scientific director in the ANA lab with clients all over the US. Over the years his work resulted in describing the clinical and serologic syndrome of mixed connective tissue disease (MCTD) with numerous publications. He remains an advisor to the lab.



<u>Sara Walker MD, MACP</u>: Professor Emeritus, former ACP president, served as Senior Scientific Advisor for the MU institute for clinical and translational science.



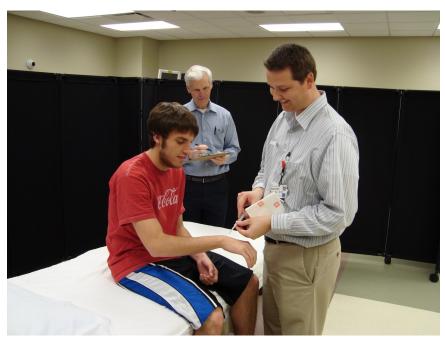
<u>James Cassidy MD</u>: Professor Emeritus, served as an advisor to the division until he passed away in 2012. Considered one of the fathers of pediatric rheumatology, he authored the most commonly used pediatric rheumatology textbook.

ROSCE

The Rheumatology Objective Structured Clinical Examination (ROSCE) is an educational exercise in which rheumatology fellows rotate through different stations demonstrating various skills in history taking and physical examination.

The highway I-70 ROSCE group consists of faculty from Washington University in St. Louis, University of Kansas, and University of Missouri-Columbia. The ROSCE has been held at Mizzou for the last several editions.

The ROSCE is a unique enterprise and Mizzou is one of the few programs in the country that holds OSCE regularly.



Dr. Kenneth Lawlor, rheumatology fellow, at the Injection Station being evaluated by Dr. Sterling West from the University of Colorado.

"We get to see a very diverse mix of patients"

Dedri Ivory, MD River City Medical and Arthritis Center Vicksburg, Mississippi

"The program exposed me to a wide variety of rheumatic conditions and well prepared me for general rheumatology practice. The size of the program was a plus, as it promoted constant engagement between the fellows and attendings and thus enhanced the learning environment."

Gregory J. Wilson, DO Medical Director, Rheumatology St. Luke's Health System, Boise, Idaho

"I had a wonderful experience as a fellow!

The faculty have diverse interests and committed to the education of the residents and fellows.

The clinical experience was quite broad and the didactic sessions were extremely engaging. Overall the rheumatology program at Mizzou is outstanding!"

Shantanu Bishwal, MD, MPH Geisinger Health System, Pennsylvania

"I had excellent training. I learned a lot from the immunology round table Discussions and from the weekly grand rounds."

Sriya Ranatunga, MD, MPH Associate Professor of Medicine, Southern Illinois University School of Medicine, Springfield, Illinois



From Left to Right
Anmol Dhillon, MD, Emily Larson, DO, Dedri Ivory, MD, Gregory Wilson, DO
2009 - 2012 Fellows



From Left to Right
Prahlad Reddy, MD, M. Arif Ahmed, MD, Timothy Hayes, MD
2012 - 2014 Fellows



From Left to Right
Daniel Grant, MD, Donica Baker, MD, Kelly Delaney-Nelson, Dr. Sheena Henry
2018-2020 Fellows

Fellow Benefits

- Competitive salary
- Medical, dental, vision and prescription plans
- Tax deferred investment program
- 20 vacation days each year
- Membership in American College of Rheumatology (ACR) paid by division
- Employee discounts at cafeterias, pharmacies and the campus bookstore
- Annual ACR In-Training Exam fees paid by division

- Life insurance options
- Flexible spending plan
- Disability insurance options
- 5 CME days each year
- Health and Wellness discount plans
- Opportunities to attend national and regional conferences
- Annual educational book funds

Research Programs

- A Phase 3 Randomized Double-blind, Active-controlled, Multicenter Study of the Long-term Safety and Efficacy of Subcutaneous Administration of Tanezumab in Subjects with Osteoarthritis of the Hip or Knee. Pfizer (2016-2019)
- A Phase 3, Multicenter Study to Evaluate the Long-Term Safety and Efficacy of Baricitinib in Patients with Rheumatoid Arthritis. Protocol I4V-MC-JADY. Eli-Lilly (2015- 2019)
- Randomized, Double-Blind, Placebo-Controlled, Phase 3 Study to Evaluate the Efficacy and Safety of Baricitinib (LY3009104) in Patients with Inadequate Response to Conventional Disease-Modifying Antirheumatic Drugs with Moderately to Severely Active Rheumatoid Arthritis. Protocol 14V-MC-JADX. Eli-Lilly (2012-2016)
- A Randomized, Double-Blind, Placebo and Active-Controlled, Phase 3 Study Evaluating the Efficacy and Safety of Baricitinib in Patients with Moderately to Severely Active Rheumatoid Arthritis Who Have Had an Inadequate Response to Methotrexate Therapy, Protocol 14V-MC-JADV. Eli-Lilly (2012-2016)
- A Prospective Observational Study to Evaluate Long-Term Safety and Functional Status of Subjects with Rheumatoid Arthritis Previously Enrolled in Studies of CP- 690,550. Pfizer (2011-2012)
- A Randomized, Double-Blind, Placebo-Controlled Phase 2 Study to Assess the Immune Response Following Administration of Influenza and Pneumococcal Vaccines to Subjects with Rheumatoid Arthritis Receiving CP-690,550 or Placebo with and without Background Methotrexate. Pfizer (2011-2012)
- A long-term Follow-up Study of CP-690,550, a moderately Selective Janus-Kinase-3 inhibitor for the Treatment of Rheumatoid Arthritis. Pfizer (2009-2011)
- A Multicenter, Randomized, Double-Blind, Long-Term Study of the Safety of Subcutaneous Administration of Tanezumab in Patients with Osteoarthritis of the Knee or Hip. Pfizer (2009-2011).
- Impact of cognitive behavioral therapy for insomnia on pain symptoms and central sensitization in fibromyalgia, National Institutes of Health/National Institute of Nursing Research (2018-2023).
- Cardiovascular Inflammation Reduction Trial (CIRT): A randomized, double-blind, placebo-controlled, event-driven trial of weekly low-does methotrexate in the prevention of cardiovascular events among stable coronary artery disease patients with type 2 diabetes or metabolic syndrome, National Heart Lung and Blood Institute. (2013-2018).

Poster Presentations

- **Grant D**, **Baker D**, Velazquez C, Miller DC, Siva C. "Statin-Induced Autoimmune Myositis: Not as uncommon as you thought!". ACP Missouri regional chapter meeting, September 2018.
- Xue R, **Hassane H**, Velazquez C, Ellsmore K, Siva C. "A quality improvement audit to identify quality issues regarding cryoglobulin testing at the University of Missouri Health Care." ACP Missouri regional chapter meeting, September 2017.
- **Joshi A**, Varre S, Velazquez C, Siva C. "A quality improvement audit to assess ordering patterns of Antineutrophil cytoplasmic antibody (ANCA) serologies at the University of Missouri Health Care." ACP Missouri regional chapter meeting, September 2016.
- **Kohli R**, Long TM, Velazquez C, Siva C. "Osseous Sarcoidosis." ACR Annual Meeting, San Francisco, November 2015.
- Hayes T, Dhillon A, Velázquez C, Siva C. Screening for Tuberculosis, Hepatitis B, and Hepatitis C prior to the Initiation of DMARD Therapy: QI project to assess the rate of screening. ACP regional meeting, 2012.
- Wilson G, Siva C, Velázquez C, Jones JD, Branahl SE. Isolated Angiitis? A Case of Aortitis with Hepatitis C. Rheumatology Winter Clinical Symposium, Hawaii, 2012.
- Wilson G, Siva C, Velazquez C, Smarr K, Fresen J, Petruc M. "Are United States Rheumatologists Interested in Using Electronic Mail in Patient Care? Concerns from a National Survey." ACR Annual Meeting, Chicago, November 2011.

Publications

- Henry S, Siva C. Pseudo-Heterotopic Ossification. J Clin Rheumatol. 2019 Jun 27. doi: 10.1097.
- **Delaney-Nelson K**, Thimmappa N, Siva C. Dry eyes, dry mouth and kidney stones. Rheumatology (Oxford). 2019 Jul 1;58(7):1187.
- Hassane H, Beg M, Siva C, Velazquez C. Co-presentation of giant cell arteritis and granulomatosis with polyangiitis: case report and review of literature. Am J Case Rep 2018; 19:651-655.
- Joshi A, Siva C. Magnesium disorders can cause CPPD disease: a case report and review of the literature. Eur J Rheumatol 2018; 5: 53-57
- **Kohli R**, Siva C. Diplopia, Proptosis, and Joint Pain: Possibility of Osseous and Orbital Sarcoidosis. J Rheumatol. 2018 Jan; 45(1):141-142.
- **Joshi A**, Hong J, Siva C. Newer oral anticoagulants in the management of antiphospholipid syndrome. Clin Med Res 2017 Jun; 15(1-2):41-44.
- **Kohli R**, Siva C. Atypical femoral fractures can happen even with short duration of bisphosphonate treatment. Conn Med 2015; 79(7):419-22.
- **Dhillon A,** Velazquez C, Siva C. Rheumatologic diseases and posterior reversible encephalopathy syndrome: two case reports and review of the literature. Rheumatol. Int., 2012 vol. 32(12) pp. 3707-13.
- Ivory D, Velázquez C. The forgotten crystal arthritis: calcium pyrophosphate deposition. Missouri Medicine, 2012.
- Siva C, Larson E, Barnett M. Rational use of blood tests in the evaluation of rheumatic diseases. Mo Med 2012 Jan-Feb; vol. 109(1) pp. 59-63.
- **Ivory D**, Siva C, Velázquez C, Abdinoor AA. Screening for male osteoporosis at an academic medical center: retrospective analysis of DXA usage patterns over 5 years. Am J Men's Health. 2012 Jan; vol. 6(1) pp. 67-70
- Wilson, G, Folzenlogen D. Spondyloarthropathies: new direction in etiopathologenesis, diagnosis and treatment. Missouri Medicine, 2012.



University of Missouri Hospital



University Physicians Medical Building



Harry S. Truman Memorial Veterans Hospital

COLUMBIA

Columbia, MO offers the friendliness of a small town with the progression and innovation of a big city.

With the cultivation of the mind as Columbia's chief economic concern, excellence in education is a priority. Public and private K-12 schools rank among the top in the nation, and three institutions of higher education surround downtown.

Culture and entertainment are not hard to find; the city hosts the annual True/False Film Festival, Roots N Blues N BBQ Festival, boasts a vibrant art district and has multiple fine arts venues including the University's own Jesse Hall Auditorium

If you're a sports fan, you can get in some tailgating before watching the Missouri Tigers SEC Football team at Faurot Field.

If you crave the great outdoors, Columbia is home to over 70 parks, trails and nature areas. The Katy Trail, the nation's longest recreational rail trail, runs 240 miles through Missouri. Stephen's Lake Park, Finger Lakes State Park and Rockbridge State Park offer hiking, swimming, fishing and canoeing all within minutes of downtown and Twin Lakes offers one of the city's many dog parks.

For additional information on Columbia visit www.visitcolumbiamo.com

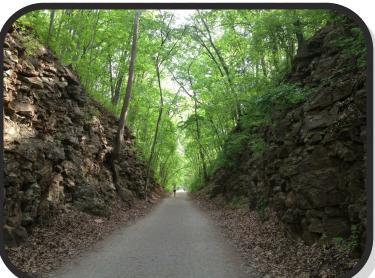
Miles to Columbia

Chicago	415	Memphis	398
Dallas	590	Omaha	316
Des Moines	243	St. Louis	127
Kansas City	126	Tulsa	347

Columbia Regional Airport

Served by American and United Airlines and provides non-stop flights to Dallas/Fort Worth, Chicago O'Hare and Denver International Airports. www.flycou.com





Stephen's Lake Park

MKT Trail



