



Robert Michael Fairchild

Assistant Professor of Medicine (Immunology and Rheumatology)

Medicine - Immunology & Rheumatology

CLINICAL OFFICE (PRIMARY)

- **Immunology and Rheumatology Clinic**

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Bio

BIO

Robert Fairchild, MD, PhD specializes in the diagnosis, evaluation and management of rheumatologic diseases utilizing rheumatologic ultrasonography with a particular interest in rheumatoid arthritis. He is the Director of Stanford's Rheumatology Ultrasound Diagnostic and Interventional Clinic which he founded in 2017. Since that time, the ultrasound clinic has seen tremendous growth and referrals for imaging and procedural intervention are now core components of Stanford Rheumatology's clinical practice. In addition, Dr. Fairchild developed and instituted a comprehensive rheumatology ultrasound fellowship training curriculum and is engaged in a variety of ultrasound research studies. Outside of his ultrasound pursuits, Dr. Fairchild also serves as the Medical Director for Stanford's Value Based Care program which focuses on initiatives aimed at delivering high quality care at lower cost.

Dr. Fairchild received his PhD from Georgetown University, and his M.D. from Columbia University college of Physicians and Surgeons. He completed internship and residency in the Department of Medicine at Stanford and continued on for rheumatology fellowship training in the Division of Immunology and Rheumatology at Stanford. Dr. Fairchild trained in rheumatologic ultrasonography through the USSONAR program and is certified in this technique through the American College of Rheumatology (RhMSUS certification).

Dr. Fairchild's research interests in ultrasonography focus on unique applications of ultrasonography in rheumatology disease. He has performed research in systemic sclerosis (scleroderma), using ultrasound to study arthritis and tendinopathy, vascular disease, calcinosis, and skin disease. He is also focused on interstitial lung disease in adult and pediatric rheumatologic disease. Dr. Fairchild is engaged in the development of ultrasonographic outcome measures for clinical research studies and uses ultrasonographic assessments of the salivary gland to measure disease response in clinical trials in IgG4 related disease and Sjogren's Syndrome. Dr. Fairchild is leveraging his expertise in ultrasonography and imaging in rheumatology in deep learning applications to aid in disease detection, diagnosis, and sub-typing. Dr. Fairchild also performs synovial biopsies providing an important clinical and research resource for the Division of Immunology and Rheumatology.

CLINICAL FOCUS

- Diagnostic and Interventional Rheumatologic Ultrasonography
- Rheumatoid Arthritis

- Rheumatology

ACADEMIC APPOINTMENTS

- Assistant Professor - University Medical Line, Medicine - Immunology & Rheumatology
- Member, Wu Tsai Neurosciences Institute

ADMINISTRATIVE APPOINTMENTS

- Director, Rheumatology Ultrasound Program, Stanford University, (2017- present)
- Director of Value Based Care for the Department of Medicine, Stanford University/Stanford Hospital, (2023-2024)
- Medical Director, Value Based Care Program, Stanford Hospital and Clinics, (2021-2023)

PROFESSIONAL EDUCATION

- Board Certification: Rheumatology, American Board of Internal Medicine (2017)
- Board Certification: Internal Medicine, American Board of Internal Medicine (2015)
- Fellowship: Stanford University Immunology and Rheumatology Fellowship (2017) CA
- Residency: Stanford University Internal Medicine Residency (2015) CA
- Internship: Stanford University Internal Medicine Residency (2013) CA
- Medical Education: Columbia University College of Physicians and Surgeons (2012) NY
- PhD, Georgetown University , Host-Guest and Organometallic Chemistry (2008)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Dr. Fairchild's research interests in ultrasonography focus on unique applications of ultrasonography in rheumatology disease. He has performed extensive research in systemic sclerosis (scleroderma), using ultrasound to study arthritis and tendinopathy, vascular disease, calcinosis, and skin disease. He also spent considerable focus on interstitial lung disease in adult and pediatric rheumatologic disease and leveraged this knowledge to study pulmonary disease in SARS-CoV-2 infected patients.

Dr. Fairchild is engaged in the development of ultrasonographic outcome measures for clinical research studies and uses ultrasonographic assessments of the salivary gland to measure disease response in clinical trials in IgG4 related disease and Sjogren's Syndrome. Dr. Fairchild is leveraging his expertise in ultrasonography and imaging in rheumatology in deep learning applications to aid in disease detection, diagnosis, and sub-typing. Dr. Fairchild also performs synovial biopsies providing an important clinical and research resource for the Division of Immunology and Rheumatology.

CLINICAL TRIALS

- Ultrasound Therapy Effects to Modulate the Inflammatory Reflex, Recruiting

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Immunology/Rheumatology (Fellowship Program)

Publications

PUBLICATIONS

- **Evolution and impact of a dedicated ultrasound clinic on clinical rheumatology practice at an academic medical center.** *Seminars in arthritis and rheumatism*
Fairchild, R. M., Deluna, M. D., Golovko, V., Mar, D. A., Baker, M. C., Nishio, J., Horomanski, A. L.
2023; 63: 152276

- **Biologics Initiation in Rheumatoid Arthritis by Race and Ethnicity: Results From a Randomized Survey Study.** *ACR open rheumatology*
Simard, J. F., Lu, R., Falasinnu, T. O., Baker, M. C., Hawa, S., Deluna, M. D., Horomanski, A., Fairchild, R. M.
2023
- **Lung Ultrasound in Children with Systemic Juvenile Idiopathic Arthritis Associated Interstitial Lung Disease.** *Arthritis care & research*
Vega-Fernandez, P., Ting, T. V., Mar, D. A., Schapiro, A. H., Deluna, M. D., Saper, V. E., Grom, A. A., Schulert, G. S., Fairchild, R. M.
2022
- **Ultrasound evaluation of the hands and wrists in patients with systemic sclerosis: Osteophytosis is a major contributor to tender joints.** *Seminars in arthritis and rheumatism*
Fairchild, R., Horomanski, A., Sharpless, L., Chung, M., Li, S., Hong, J., Sheth, K., Chung, L.
2021; 51 (4): 735-740
- **Prevalence and significance of pulmonary disease on lung ultrasonography in outpatients with SARS-CoV-2 infection.** *BMJ open respiratory research*
Fairchild, R. M., Horomanski, A., Mar, D. A., Triant, G. R., Lu, R., Lu, D., Guo, H. H., Baker, M. C.
2021; 8 (1)
- **Ultrasound Detection of Calcinosis and Association with Ulnar Artery Occlusion in Patients with Systemic Sclerosis.** *Arthritis care & research*
Fairchild, R. n., Chung, M. n., Sharpless, L. n., Li, S. n., Chung, L. n.
2020
- **Development and Assessment of a Novel Lung Ultrasound Interpretation Criteria for the Detection of Interstitial Lung Disease in Systemic Sclerosis.** *Arthritis care & research*
Fairchild, R. n., Chung, M. n., Yang, D. n., Sharpless, L. n., Li, S. n., Chung, L. n.
2020
- **A double-blind, placebo-controlled, randomized withdrawal trial of sarilumab for the treatment of glucocorticoid-dependent sarcoidosis.** *Rheumatology (Oxford, England)*
Baker, M. C., Horomanski, A., Wang, Y., Yuhan, L., Parsafar, S., Fairchild, R., Mooney, J. J., Raj, R., Witteles, R., Genovese, M. C.
2023
- **North American musculoskeletal ultrasound scanning protocol of the shoulder, elbow, wrist, and hand: update of a Delphi Consensus Study.** *Clinical rheumatology*
Bethina, N. K., Torralba, K. D., Choi, K. S., Fairchild, R. M., Cannella, A. C., Salto, L., Kissin, E. Y., Yinh, J., Aggarwal, M., Thiele, R., Nishio, M. J., for USSONAR
2022
- **Comparison of Adverse Events Among Home- vs Facility-Administered Biologic Infusions, 2007-2017.** *JAMA network open*
Baker, M. C., Weng, Y., Fairchild, R., Ahuja, N., Rohatgi, N.
2021; 4 (6): e2110268
- **Strongyloides Hyperinfection After Immunosuppression in an Immigrant From El Salvador A Case for Early Diagnosis and Treatment** *JCR-JOURNAL OF CLINICAL RHEUMATOLOGY*
Hoppenfeld, M., Kennedy, V., Sheth, K., Chang, A., Nelson, J., Fairchild, R.
2021; 27 (4): E128+
- **North American musculoskeletal ultrasound scanning protocol of the hip, knee, ankle, and foot: update of a Delphi consensus study.** *Clinical rheumatology*
Yinh, J., Torralba, K. D., Choi, K. S., Fairchild, R. M., Cannella, A., Salto, L., Kissin, E. Y., Thiele, R., Oberle, E. J., Marston, B., Nishio, M. J., for USSONAR
2021
- **A narrative review of imaging in calcinosis associated with systemic sclerosis.** *Clinical rheumatology*
Mar, D., Valenzuela, A., Stevens, K. J., Chung, L., Fairchild, R. M.
2021
- **Ultrasound Doppler and tenosynovial fluid analysis in tenosynovitis.** *Annals of the rheumatic diseases*
Aslam, F. n., England, B. R., Cannella, A. n., Sharp, V. n., Kao, L. n., Arnason, J. n., Albayda, J. n., Bakewell, C. n., Sanghvi, S. n., Fairchild, R. n., Torralba, K. D., Evangelisto, A. n., DeMarco, et al
2020
- **Painful Panniculitis and Polyarthritits in Pancreatic Adenocarcinoma: A Case Report.** *Journal of clinical rheumatology : practical reports on rheumatic & musculoskeletal diseases*

Ku, S. n., Balijepally, R. n., Horomanski, A. n., Fairchild, R. n., Brown, R. A., Liao, C. E.
2020

- **Development and Preliminary Validation of a Novel Lung Ultrasound Interpretation Criteria for the Detection of Interstitial Lung Disease in Patients with Systemic Sclerosis**

Fairchild, R., Yang, D., Chung, M., Sharpless, L., Li, S., Chung, L.
WILEY.2019

- **Tenosynovial Aspiration by Ultrasound Guidance: Correlation and Diagnostic Implications of Tenosynovial Analysis and Ultrasound Doppler Signal**

Aslam, F., England, B., Cannella, A., Sharp, V., Kao, L., Arnason, J., Albayda, J., Bakewell, C., Sanghvi, S., Fairchild, R., Torralba, K., Evangelisto, A., DeMarco, et al
WILEY.2019

- **Ultrasound Evaluation of the Hands in Patients with Systemic Sclerosis: Osteophytosis Is a Major Contributor to Tender Joints**

Fairchild, R., Chung, M., Sharpless, L., Li, S., Hong, J., Sheth, K., Chung, L.
WILEY.2019

- **Ultrasound Detection of Calcinosis and Correlation with Ulnar Artery Occlusion in Patients with Systemic Sclerosis**

Fairchild, R., Chung, M., Sharpless, L., Li, S., Chung, L.
WILEY.2019

- **Musculoskeletal Ultrasound Scanning Protocol Consensus Statements on Scanning Conventions and Documentation in the U.S. *Arthritis care & research***

Torralba, K. D., Choi, K. S., Salto, L. M., Fairchild, R. n., Cannella, A. C., Kissin, E. Y., Thiele, R. n., Evangelisto, A. n., Nishio, M. J.
2019

- **Consensus Statements on Scanning Conventions and Documentation in Musculoskeletal Ultrasound**

Torralba, K., Nishio, M., Thiele, R. G., Fairchild, R., Choi, K., Salto, L., Cannella, A. C., Kissin, E.
WILEY.2018

- **Strongyloides Hyperinfection After Immunosuppression in an Immigrant From El Salvador: A Case for Early Diagnosis and Treatment. *Journal of clinical rheumatology : practical reports on rheumatic & musculoskeletal diseases***

Hoppenfeld, M. S., Kennedy, V., Sheth, K., Chang, A., Nelson, J., Fairchild, R. M.
2018

- **Consensus-Building on a Rheumatology Musculoskeletal Ultrasound Scanning Protocol for Rheumatology Fellowship Programs**

Torralba, K., Nishio, M., Thiele, R. G., Fairchild, R., Choi, K., Salto, L., Cannella, A. C., Kissin, E. Y.
WILEY.2017

- **Utility of B-type natriuretic peptides in the assessment of patients with systemic sclerosis-associated pulmonary hypertension in the PHAROS registry *CLINICAL AND EXPERIMENTAL RHEUMATOLOGY***

Chung, L., Fairchild, R. M., Furst, D. E., Li, S., Alkassab, F., Bolster, M. B., Csuka, M. E., Derk, C. T., Domsic, R. T., Fischer, A., Frech, T. M., Gomberg-Maitland, M., Gordon, et al
2017; 35 (4): S106-S113