

Poster presenter (name, credentials, title, institution)

Eric W. Robbins, MD Clinical Fellow Critical Care Medicine and Pulmonary Branch, National Heart, Lung, and Blood Institute National Institutes of Health

Poster title:

Serial Quantitative Changes in Anti-Scl-70 Autoantibodies Are Associated with Lung Function Decline in Systemic Sclerosis

What is your poster about?

Our study investigates whether dynamic, quantitative monitoring of anti-Scl-70 autoantibody titers can predict lung function decline and disease progression in patients with systemic sclerosis (SSc). Using a research assay known as luciferase immunoprecipitation systems (LIPS), we evaluated 86 patients from the multicenter CONQUER registry. We found that baseline antibody levels alone did not correlate with clinical measures among antibody-positive patients. However, early increases in quantitative anti-Scl-70 levels over 6 months were significantly associated with subsequent forced vital capacity (FVC) decline. Specifically, a >30% early increase in anti-Scl-70 levels was associated with a nearly four-fold increased risk of pulmonary progression over two years.

Why did you decide to investigate this topic?

While anti-Scl-70 autoantibodies are a well-established cross-sectional risk factor for systemic sclerosis-associated interstitial lung disease (SSc-ILD), traditional testing merely provides a binary (positive/negative) result. Clinicians routinely observe variable disease trajectories among antibody-positive patients, but standard baseline antibody status offers limited dynamic prognostic value. We wanted to determine whether serial, quantitative antibody monitoring could capture early, subclinical immune activation and serve as a predictive biomarker for impending organ damage and pulmonary function loss.

What are you working on next related to this research?

We are focusing on several key follow-up directions: Validating these dynamic biomarker findings in larger, independent longitudinal SSc cohorts.

Investigating whether specific disease-modifying or immunosuppressive regimens (e.g., mycophenolate mofetil) effectively blunt quantitative anti-Scl-70 increases and whether autoantibody suppression correlates with stabilization of FVC and DLCO. Exploring how quantitative LIPS or standardized quantitative assays can be implemented into clinical laboratories to guide routine monitoring.

What excites you most about your work?

Moving from static risk assessment to dynamic, proactive monitoring in scleroderma care. Identifying an early biomarker signal that precedes overt physiological decline offers a crucial window of opportunity. It empowers rheumatologists to identify patients at high risk for imminent pulmonary progression and tailor monitoring or therapeutic strategies before irreversible lung loss occurs.

What are you most looking forward to at ACR Convergence 2026 in Orlando?

Connecting with colleagues, translational researchers, and interstitial lung disease specialists to discuss emerging biomarkers in autoimmune rheumatic diseases. I am eager to share these insights

from the CONQUER cohort, exchange ideas on how serial quantitative antibody monitoring might be integrated into clinical workflows, and discover new advancements across the field of rheumatology.

- [ACR 2026, abstract submission](#)

Registration

Early Registration: August 26, 23:59 EST

Timing: November 6–11

Abstract Character Limit

- Title limit: 250 characters, excluding spaces
- Body character limit: 2,750 characters, which EXCLUDES the title, names of authors/co- authors, authors' affiliations, spacing, and disclosures.
- limit of three image, table, and/or graphic uploads per submission. Uploaded tables and/or graphics do not count towards the character limit.
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[acceptable abbreviations](#)

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