Date Prepared: 11/29/2022 Name: Adam Schiffenbauer Office Address: 10 Center Drive Building 10, Room 6C432D Bethesda, MD 20892-1627 Work Phone: 301-451-6270 Work Email: <u>schiffenbauera2@mail.nih.gov</u> Work FAX: 301-480-3208 Place of Birth: Chicago, IL

### Education:

1999-2003	B.A., Biology with Honors, University of Chicago, Chicago, IL
2003-2007	M.D., Penn State Hershey, Hershey, PA
2007-2010	Medical Residency, Internal Medicine, George Washington University Hospital, Washington, DC
2010-2012	Fellowship in Rheumatology, National Institute of Arthritis, Musculoskeletal, and Skin Diseases (NIAMS), National Institutes of Health (NIH), Bethesda, MD

### **Professional Positions:**

2012- 2018	Staff Clinician I, Environmental Autoimmunity Group, National Institute of Environmental and Health Sciences (NIEHS), National Institutes of Health (NIH), Bethesda, MD
2018- 2021	Staff Clinician I and Associate Research Physician, Environmental Autoimmunity Group (EAG), National Institute of Environmental and Health Sciences (NIEHS), National Institutes of Health (NIH), Bethesda, MD
2018-2019	Acting Principal Investigator for Gorbach lab group, National Institute of Biomedical Imaging and Bioengineering (NIBIB), NIH, Bethesda, MD
6/2021-present	Deputy Head EAG and Associate Research Physician and Staff Clinician I, Environmental Autoimmunity Group, National Institute of Environmental and Health Sciences (NIEHS), NIH, Bethesda, MD

# Faculty Academic Appointments:

2012-present	Rheumatology Faculty, National Institute of Arthritis,	
	Musculoskeletal, and Skin Diseases (NIAMS), NIH, Bethesda, MD	

# **Committee Service:**

### Local:

2014	Physician Representative, NIH Insurance Billing Pilot: Collaborative Design Team
2014-2015	Ad Hoc Member, NIDDK Tenure Track Interview Committee
2014-2021	Substitute NIEHS representative, NIH Pediatric Care Committee
2015, 2020-present	Substitute NIEHS representative, NIH Clinical Center Medical Executive Committee
2016	NIEHS representative, NIH Clinical Center Clinical Laboratory Label Change Implementation Group
2017- present	Member, Development Team, Trans-NIH Vascular Medicine initiative, NIH Clinical Center
2017- present	Member, NIH Virtual and Augmented Reality Interest Group
2018- 2021	COP IV Review Committee, NIEHS
2018 - 2020	Judge, NIH Post-baccalaureate Poster Day
2019- 2021	NIH Clinical Center Capital Investment Fund Committee (evaluation and procurement of a PET/MRI device; funded for \$8.9 million, for procurement and construction)
2019- present	NIEHS Secondary STARS report reviewer, NIH Clinical Center
2019- 2021	NIEHS Lead Representative, Medical Records Provider Accuracy Initiative for NIEHS
2020	Member, NIH Clinical Center BTRIS Improvement Committee
2020-present	Ad hoc member, NIAID, NIH Data Safety Monitoring Board
2020	NIEHS Staff Scientist and Staff Clinician Survey Working Group
2021	NIEHS Staff Scientist and Staff Clinician Professional Development Committee
2021– present	Co-organizer, NIEHS Clinical Research Branch Seminar Series

2021- present	NIEHS DIR Retreat Committee
2021- present	NIEHS Staff Scientist/ Staff Clinician Retreat Committee
2022- present	NIH Clinical Center CRIS Prescriber Group
2022- present	NIH Clinical Center Pharmacy and Therapeutics Committee
2022- present	NIH Council on Clinical Informatics
2022- present	NIH PET Users Steering Committee
2022- present	NIAMS Performance Evaluation Committee
National:	
2020- present	Steering Committee, The George Washington University Myositis Center- Cure JM Center of Excellence, Washington, D.C.
International:	
2018- present	Scientific Committee, International Myositis Assessment and Clinical Studies Group (IMACS)
2018– 2021	Chair and Founder, International Classification of Disease (ICD) Coding Scientific Interest Group, International Myositis Assessment and Clinical Studies (IMACS) Group
2019- present	Member, Medical Advisory Board, The Myositis Association
2020- 2023	Vice Chair, IMACS Scientific Committee
2021- 2022	Expert panel member, Development of Guidelines for Cancer Screening in Patients with Idiopathic Inflammatory Myopathies
2022- present	Past Chair, ICD Coding Scientific Interest Group, IMACS Group
2022- present	Steering Committee, Whole Body MRI in Myositis, IMACS Group
2023 – present	Chair, IMACS Scientific Committee

# **Professional Societies:**

2007-present	Member, The Rheumatism Society of the District of Columbia
2010-present	Member, American College of Rheumatology
2011-present	Member, National Institutes of Health Neuromuscular Interest Group
2012-present	International Myositis Assessment and Clinical Studies Group (IMACS)

2022-present The International Myositis Society (iMyoS)

# **Editorial Activities:**

### Ad hoc Reviewer:

Arthritis and Rheumatology
Seminars in Arthritis and Rheumatism
PLOS ONE
Journal of Neuromuscular Diseases
Current Opinion in Rheumatology
International Journal of Rheumatology
RMD Open
Clinical, Cosmetic, and Investigational Dermatology

## Honors and Prizes:

2003	Graduation with Honors, Department of Biology, University of Chicago
2004	Hershey Medical Center Mellinger Scholarship Award
2010-2021	National Institutes of Health Research Loan Repayment Program Recipient
2011	Fellow Representative to the Decker Society of NIH
2016	Presented to the ICD-10 Coordination and Maintenance Committee of the CDC
2018	NIAMS Faculty of the Year
2018	Appointed to Associate Research Physician designation at NIEHS
2019	NIEHS Group Merit Award
2021	National Institute of Environmental Health Sciences 2021 Group Merit Award
2022	NIAMS Director's Group Award
2023	NHLBI Director's Award in Partnership/Collaboration

# **Report of Funded and Unfunded Projects**

### **Funding Information:**

#### **Current (Outside Funding)**

**Principal Investigator**, "An Open-label Study of Sodium Thiosulfate for Treatment of Calcinosis Associated with Juvenile and Adult Dermatomyositis" (NIEHS 17-E-0012). Investigational drug study for the use of sodium thiosulfate for the treatment of calcinosis associated with dermatomyositis.

CRADA funding of \$1,560,120 and study drug for study from Hope Pharmaceuticals. Also funded salary for IRTA position, nurse practitioner, clinical study coordinator, data management, and analysis (EHS-CTCR-1).

#### **Current (NIH Funded)**

"Environmental Risk Factors for the Anti-Synthetase Syndrome (MYORISK)" Principal Investigator (NIEHS 11-E-0072)

"Environmental Risk Factors for the Development of Myositis in Military Personnel" Principal Investigator (NIEHS 13-E-0015)

"Pathogenic Studies in Families with Twins or Siblings Discordant for Systemic Rheumatic Disorders" Lead Associate Investigator (NIEHS 03-E-0099)

"Studies in the Natural History and Pathogenesis of Adult Myositis" Lead Associate Investigator (NIAMS 91-AR-0196)

"Studies in the Natural History and Pathogenesis of the Idiopathic Inflammatory Myopathies of Childhood" Lead Associate Investigator (NIEHS 94-E-0165)

"Rituximab in the Treatment of Refractory Adult and Juvenile Dermatomyositis and Adult Polymyositis" Lead Associate Investigator (NIEHS 07-E-0012)

"Studies in the Natural History and Pathogenesis of Autoimmune/Connective Tissue Diseases" Lead Associate Investigator (FDA RIHSC CBER #121; NIEHS 05-E-N200)

"Environmental Polymorphisms Registry (EPR)" Associate Investigator (NIEHS 04-E-0053)

"Natural History of Coronavirus Disease (COVID-19) in Systemic Autoimmune Diseases" Associate Investigator (000207-AR)

"Evaluation of Novel PET Radioligands as Inflammatory Biomarkers in Rheumatoid Arthritis and Myositis" Associate Investigator (19-M-0079)

"NIA Long COVID" Associate Investigator (IRB001502)

"Studies of the Natural History of Rheumatic Disease in Minority Communities" Associate Investigator (01-AR-0227)

"Natural History of Inflammatory Muscle Diseases" Associate Investigator (000894-AR)

COVID-19 Global Rheumatology Alliance Vaccine Survey Project. Collaborative project to understand the interaction between autoimmune disease and vaccination through a global survey project. Associate Investigator

# Current Unfunded Projects:

Advanced imaging in the idiopathic inflammatory myopathies.

Advanced photography in evaluating calcinosis, skin, vessel, and muscle abnormalities in patients with idiopathic inflammatory myopathies, premature cardiovascular disease, Degos, DADA2, Takayasu's arteritis, relapsing polychondritis, eosinophilic fasciitis, post-COVID-19 infection syndrome, and undiagnosed disorders.

The development of patient reported outcomes in idiopathic inflammatory patients.

### Report of Local Teaching and Training

#### Formal Teaching of Residents, Clinical Fellows and Research Fellows:

2012-present	Faculty in NIAMS,	providing lectures	for the fellows
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#### Clinical Supervisory and Training Responsibilities:

- **2012-present** Supervise NIAMS fellows, General Rheumatology clinic weekly
- **2017-present** Train and supervise nurse practitioners for NIEHS, NIAMS

#### Laboratory and Other Research Supervisory and Training Responsibilities:

2012-present Provide day to day direction of study coordinators, research assistants, research nurse, data managers, post-bac IRTA students, and nurse practitioners for three protocols which I am Principal Investigator

#### **Other Mentored Trainees and Faculty:**

2013	Natalie Smith, NIH summer student*
	Tobacco Use is Correlated with Autoantibody Formation in the Idiopathic Inflammatory Myopathies (NIH summer poster day)
	Current position: Health Policy PhD program, University of North Carolina at Chapel Hill
2014	Wesley Greene, NIH summer student
	Evaluating the Viability of ELISA as an Alternative to Immunoprecipitation in the Screening of IIM-Related Autoantibodies (NIH summer poster day)
	Current position: Otolaryngology Resident, The University of Oklahoma
2015-2019	Sara Faghihi Kashani M.D., MPH, Visiting Foreign Physician/Special Volunteer
	Project Name: The Effect of Cigarette Smoking on the Clinical and Serological Phenotypes of Polymyositis and Dermatomyositis
	Current position: Rheumatology Fellow, Stanford University

2015-2018	Megha Sawhney M.D., Fellow
	Project Name: A Randomized, Double-Blind, Placebo-Controlled Trial of Infliximab in Refractory Polymyositis and Dermatomyositis
	Current position: Private practice Rheumatologist, Greensboro, NC
2016	Mai-han Trinh, NIH summer student*
	The Impact of Pulmonary Infections and Alcohol Consumption on the Risk of Developing Anti-Synthetase Syndrome (NIH summer poster day)
	Current position: Master of Science student in Neuropsychiatric Epidemiology, Harvard T.H. Chan School of Public Health
2017	Danielle Duarte, NIH Undergraduate Scholarship Program*
	The Effects of Environmental Exposure on the Clinical Phenotype of Idiopathic Inflammatory Myopathies (NIH summer poster day)
	Current position: Postbaccalaureate Fellow, NCI Occupational and Environmental Epidemiology Branch, NIH
2018	John Yannotty, NIH summer student
	The Impact of Silica Dust exposure on Myositis Phenotype (NIH summer poster day)
	Current position: Statistics graduate student, The Ohio State University
2018	Dr. Alaa Khaled Fayez Mohamed, M.D.
	Current Position: Faculty of Medicine, University of Alexandria, Egypt
2018-2020	Donald De Alwis, Special Volunteer
	The Effects of Solvent Exposure on the Development of Myositis Phenotypes (NIH summer poster day)
	Current position: Medical Student, University of Maryland School of Medicine
2018-2019	Prateek Gowda, Trans-institute (NIBIB and NIEHS) Postbaccalaureate IRTA
	Project Name: Development of a Computed Tomography and Calcium Scoring Technique for Assessing Calcinosis Distribution, pattern, and Burden in Dermatomyositis

Current position: Medical Student, Johns Hopkins School of Medicine

2019-2020 Briana Cervantes, NIEHS Postbaccalaureate IRTA\*

Project Name: Thermal Imaging in the Assessment of Myositis

Current position: Medical Student, Florida International University

2019 Jonathan Chen, NIH summer student

Stress is a Potential Risk Factor for the Development of Myositis and a Subset of its Clinical Phenotypes (NIH summer poster day)

Current position: Postbaccalaureate Fellow, NCI

**2019-2020** Jean-Luc Maigrot, Trans-institute Postbaccalaureate IRTA

Project Name: The Use of Infrared Imaging in Vascular Disorders

Current position: Medical Student, Case Western Reserve University School of Medicine

2020-2022 Sarvar Nazir, Outside funded NIEHS Postbaccalaureate IRTA

Project Name: Performance of Commercial Autoantibody Testing in Comparison to Recognized Gold Standards in Myositis Autoantibody Testing

Current position: Special Volunteer, NIEHS

2020-2021 Jacob Furcolo, Trans-institute Postbaccalaureate IRTA

Project Name: The Utility of Nailfold Videocapillaroscopy in Vascular Disorders

2020-2022 Dominique Quick, NIAID Post-Bacccalaureate IRTA

Project Name Utility of Infrared Imaging in Eosinophilic Disorders

Current position: NIAID Post-Baccalaureate IRTA

2022 Arushi Bhattacharyya, NIH summer student

Physical Exertion as a Potential Risk Factor for Idiopathic Inflammatory Myopathies and Its Possible Effects on Phenotype (NIH summer poster day)

Current position: Undergraduate Statistics Major, University of Maryland Baltimore County

### Report of Regional, National and International Invited Teaching and Presentations

#### National:

"Clinical Background for Dermatomyositis," ICD-10 Coordination and Maintenance Committee Meeting, Baltimore, MD, March 2016

"Assessment of Calcinosis in Dermatomyositis," American College of Rheumatology Annual Meeting, San Diego, CA, November 2017

"Calcinosis in JDM," 2018 Update on Juvenile Myositis Care and Research, George Washington University, Cure JM Medical Conference and Educational Forum, Washington, DC, June 2018

"Skin Disease and Skin Protection" Cure JM Family Conference, Washington, DC, June 2018

"Updates from the Global Conference on Myositis," Chesapeake Bay Myositis Patient Group, Millersville, MD, May 2019

"Imaging Studies in Myositis," NIH Clinical Center Radiology Education and Quality Improvement Conference, Bethesda, MD, October 2019

"Calcinosis in JM, its Treatment and the use of Sodium Thiosulfate in its Management" Cure JM Virtual Symposium on New Drugs in JDM clinical trials, Virtual Meeting, October 2020

"Performance of Commercial Autoantibody Testing in Comparison to Recognized Gold Standards in Myositis Autoantibody Testing," American College of Rheumatology Annual Meeting, Virtual Meeting, November 2021

"The Assessment of Calcinosis," Rheumatology Grand Rounds, Beth Israel Deaconess Medical Center, Boston, MA, March 2022 (virtual)

"Environmental Risk Factors for the Development of Myositis in Military Personnel," The Myositis Association Military Veteran Support Group Meeting, Virtual Meeting, July 2022

"Enrolling in a Clinical Study," The Myositis Association Annual Meeting, Orlando, Florida, September 2022

"Environmental Triggers and Myositis," The Myositis Association Annual Meeting, Orlando, Florida, September 2022

"Medical Advisory Board Town Hall," The Myositis Association Annual Meeting, Orlando, Florida, September 2022 "The Treatment of Calcinosis," Rheumatology Grand Rounds, Beth Israel Deaconess Medical Center, Boston, MA, February 2023 (virtual)

"Current Questions in the Idiopathic Inflammatory Myopathies" Rheumatology Grand Rounds, Georgetown University Hospital, Washington, DC, March 2023

### International:

"Gene-Environment Interactions," Smithsonian National Museum of Natural History, The Scientist is In, Washington, DC, August 2014

"Gene-Environment Interactions," Q?rius by the Smithsonian National Museum of Natural History, Washington, DC, October 2014

"ICD-10 coding for Myositis," Juvenile Dermatomyositis Working Group and International Myositis Assessment and Clinical Studies Group Annual Meeting, Washington, DC, November 2016

"The Assessment and Management of Ectopic Calcification," Medical Dermatology Society Annual Meeting, Washington, DC February 2019

"DM (including ILD and JDM) Update," The Myositis Association's International Annual Patient Conference, Virtual Meeting, September 2020

"Polymyositis/Necrotizing Myopathy" The Myositis Association 2021 International Annual Patient Conference "The Power of Us!", Virtual Meeting, September 2021

"IVIG vs Rituxan – Pros and Cons and Considerations" The Myositis Association Annual Meeting, San Diego, California, September 2023

"What Does Remission Look Like and How Do I get There?" The Myositis Association Annual Meeting, San Diego, California, September 2023

### **Report of Clinical Activities and Innovations**

#### **Current Licensure and Board Certification:**

Board Certified Internal Medicine Board Certified Rheumatology Medical license, State of Maryland Basic Life Support, American Heart Association (2003-present)

### **Practice Activities:**

Serve as primary provider for adult inpatients for the Environmental Autoimmunity Group of NIEHS. For FY19 served as direct primary provider for 265 inpatient days, a 25% increase over FY18, with the NIH Clinical Center having an average increase of 2%. For FY18 served as direct primary provider for 212 inpatient days, which was a 382% increase over FY17.

Serve as primary provider for adult outpatients for the Environmental Autoimmunity Group of NIEHS. Conducted over 62 outpatient visits for NIEHS patients in FY19 and over 55 outpatient visits for NIEHS in FY18.

Cover 24 hour on-call coverage for EAG adult patients 351 days of the year. Cover pediatric patient call for EAG as back-up as needed throughout year.

Serve as Attending Physician for patients on the NIAMS Outpatient and Inpatient services with confirmed or suspected muscle disorders.

Rotate as Attending Physician on the Adult Rheumatology NIH consult service

Perform ad-hoc adult patient consults for multiple institutes at the NIH Clinical Center, for patients with muscle or calcification disorders.

Provide consults to national and international physicians on the diagnosis and management of autoimmune muscle disorders and calcinosis.

### **Clinical Innovations:**

### **Report of Teaching and Education Innovations**

**2017**: Worked with Joint Pathology Center (JPC) staff and NIAMS Rheumatology Fellowship Program Director to develop a collaborative educational experience for NIAMS fellows and research staff to travel to the JPC facility to learn about the facility and discuss the research resources it has to offer to develop cross collaboration and increased use of unique JPC resources.

**2017-2020:** Worked with Dr. Laura Lewandowski of NIAMS to develop an education curriculum for training Liberian physicians and physician extenders in Rheumatology. Selected as one of 3 physicians to travel to Liberia to teach physicians and physician extenders using that curriculum, and to assess post-Ebola patients for rheumatic diseases. Continued to work post-training to revise and improve the training curriculum.

**2020-present:** Working with NIEHS and NIAMS faculty to develop an appropriate curriculum and teaching experience under COVID-19 physical distancing conditions. This has included deployment of telehealth to the NIAMS Rheumatology fellowship program, including a quality improvement project run by a fellow to assess its utility in their cohort. This also has included

attending and setting up virtual teaching rounds, sign out rounds, bedside rounds, and didactics.

**2011-present:** Participate in interviewing and selection of NIAMS Rheumatology fellows.

# Report of Technological and Other Scientific Innovations

**2012:** Received IRB approval for the first scientific study using MRI/PET at the NIH Clinical Center. This protocol served as a template for other protocols using MRI/PET from NIAMS, NIEHS, NIAID, and NHLBI.

**2017:** Initiated the first NIH protocol to use the trans-government Memorandum of Understanding between NIH, Walter Reed National Military Medical Center, and the Uniformed Services University of the Health Sciences. Our establishment of this MOU served as a guide for other NIH investigators to use this mechanism for collaborative research.

**2018:** Developed a system for performing virtual reality inside inpatient rooms, where the equipment was able to come to the patient, as featured in the 2019 edition of Clinical Center News (<u>https://clinicalcenter.nih.gov/about/news/newsletter/2019/winter/story-08.html</u>). This enabled the EAG to be the first group at the NIH CC to bring virtual reality to a patient instead of having to transport patients to a specialized area. This involved developing cleaning protocols for all equipment, working with multiple stakeholders on safety rules and parameters for the patient and staff, and working with partners from IT for proper and safe connectivity.

# **Report of Scholarship**

# A. Peer-reviewed original publications:

- Rider LG\*, Schiffenbauer AS\*, Zito M, Lim KL, Ahmed A, Zemel LS, Rennebohm RM, Passo MH, Summers RM, Hicks JE, Lachenbruch PA, Heyes MP, Miller FW; Juvenile Dermatomyositis Disease Activity Collaboration Study Group. Neopterin and quinolinic acid are surrogate measures of disease activity in the juvenile idiopathic inflammatory myopathies. Clin Chem. 2002 Oct;48(10):1681-8. PMID: 12324484.
   \* These authors contributed equally.
- Poole BD, Zhou J, Grote A, Schiffenbauer A, Naides SJ. Apoptosis of liver-derived cells induced by parvovirus B19 nonstructural protein. J Virol. 2006 Apr;80(8):4114-21. doi: 10.1128/JVI.80.8.4114-4121.2006. PMID: 16571827; PMCID: PMC1440431.
- O'Hanlon TP, Rider LG, Schiffenbauer A, Targoff IN, Malley K, Pandey JP, Miller FW. Immunoglobulin gene polymorphisms are susceptibility factors in clinical and autoantibody subgroups of the idiopathic inflammatory myopathies. Arthritis Rheum. 2008 Oct;58(10):3239-46. doi: 10.1002/art.23899. PMID: 18821675; PMCID: PMC2682358.

- 4. Aggarwal R, Rider LG, Ruperto N, Bayat N, Erman B, Feldman BM, Oddis CV, Amato AA, Chinoy H, Cooper RG, Dastmalchi M, Fiorentino D, Isenberg D, Katz JD, Mammen A, de Visser M, Ytterberg SR, Lundberg IE, Chung L, Danko K, García-De la Torre I, Song YW, Villa L, Rinaldi M, Rockette H, Lachenbruch PA, Miller FW, Vencovsky J; International Myositis Assessment and Clinical Studies Group and the Paediatric Rheumatology International Trials Organisation. 2016 American College of Rheumatology/European League Against Rheumatism Criteria for Minimal, Moderate, and Major Clinical Response in Adult Dermatomyositis and Polymyositis: An International Myositis Assessment and Clinical Studies Group/Paediatric Rheumatology International Trials Organisation Collaborative Initiative. Arthritis Rheumatol. 2017 May;69(5):898-910. doi: 10.1002/art.40064. Epub 2017 Apr 6. PMID: 28382787; PMCID: PMC5407906.
- Kishi T, Rider LG, Pak K, Barillas-Arias L, Henrickson M, McCarthy PL, Shaham B, Weiss PF, Horkayne-Szakaly I, Targoff IN, Miller FW, Mammen AL; Childhood Myositis Heterogeneity Study Group. Association of Anti-3-Hydroxy-3-Methylglutaryl-Coenzyme A Reductase autoantibodies with DRB1\*07:01 and severe myositis in juvenile myositis patients. Arthritis Care Res (Hoboken). 2017 Jul;69(7):1088-1094. doi: 10.1002/acr.23113. PMID: 28129483; PMCID: PMC5487292.
- Schiffenbauer A, Garg M, Castro C, Pokrovnichka A, Joe G, Shrader J, Cabalar IV, Faghihi-Kashani S, Harris-Love MO, Plotz PH, Miller FW, Gourley M. A randomized, double-blind, placebo-controlled trial of infliximab in refractory polymyositis and dermatomyositis. Semin Arthritis Rheum. 2018 Jun;47(6):858-864. doi: 10.1016/j.semarthrit.2017.10.010. Epub 2017 Oct 16. PMID: 29174792; PMCID: PMC6208161.
- Yeker RM, Pinal-Fernandez I, Kishi T, Pak K, Targoff IN, Miller FW, Rider LG, Mammen AL; Childhood Myositis Heterogeneity Collaborative Study Group. Anti-NT5C1A autoantibodies are associated with more severe disease in patients with juvenile myositis. Ann Rheum Dis. 2018 May;77(5):714-719. doi: 10.1136/annrheumdis-2017-212436. Epub 2018 Jan 23. PMID: 29363513; PMCID: PMC5898976.
- Schiffenbauer A, Faghihi-Kashani S, O'Hanlon TP, Flegel WA, Adams SD, Targoff IN, Oddis CV, Ytterberg SR, Aggarwal R, Christopher-Stine L, Shamim EA, Dellaripa PF, Danoff SK, Mammen AL, Miller FW. The effect of cigarette smoking on the clinical and serological phenotypes of polymyositis and dermatomyositis. Semin Arthritis Rheum. 2018 Dec;48(3):504-512. doi: 10.1016/j.semarthrit.2018.02.003. Epub 2018 Feb 14. PMID: 29703532; PMCID: PMC6133760.
- Sabbagh S, Pinal-Fernandez I, Kishi T, Targoff IN, Miller FW, Rider LG, Mammen AL;
  Childhood Myositis Heterogeneity Collaborative Study Group. Anti-Ro52 autoantibodies are associated with interstitial lung disease and more severe disease in patients with juvenile myositis. Ann Rheum Dis. 2019 Jul;78(7):988-995. doi:

10.1136/annrheumdis-2018-215004. Epub 2019 Apr 24. PMID: 31018961; PMCID: PMC7570952.

- Tsaltskan V, Aldous A, Serafi S, Yakovleva A, Sami H, Mamyrova G, Targoff IN, Schiffenbauer A, Miller FW, Simmens SJ, Curiel R, Jones OY, Rider LG. Long-term outcomes in juvenile myositis patients. Semin Arthritis Rheum. 2020 Feb;50(1):149-155. doi: 10.1016/j.semarthrit.2019.06.014. Epub 2019 Jun 28. PMID: 31303436; PMCID: PMC6934928.
- Seto N, Torres-Ruiz JJ, Carmona-Rivera C, Pinal-Fernandez I, Pak K, Purmalek MM, Hosono Y, Fernandes-Cerqueira C, Gowda P, Arnett N, Gorbach A, Benveniste O, Gómez-Martín D, Selva-O'Callaghan A, Milisenda JC, Grau-Junyent JM, Christopher-Stine L, Miller FW, Lundberg IE, Kahlenberg JM, Schiffenbauer AI, Mammen A, Rider LG, Kaplan MJ. Neutrophil dysregulation is pathogenic in idiopathic inflammatory myopathies. JCI Insight. 2020 Feb 13;5(3):e134189. doi: 10.1172/jci.insight.134189. PMID: 31945019; PMCID: PMC7098779.
- Smith MA, Chiang CC, Zerrouki K, Rahman S, White WI, Streicher K, Rees WA, Schiffenbauer A, Rider LG, Miller FW, Manna Z, Hasni S, Kaplan MJ, Siegel R, Sinibaldi D, Sanjuan MA, Casey KA. Using the circulating proteome to assess type I interferon activity in systemic lupus erythematosus. Sci Rep. 2020 Mar 10;10(1):4462. doi: 10.1038/s41598-020-60563-9. PMID: 32157125; PMCID: PMC7064569.
- Lewandowski LB, Schiffenbauer A, Mican JM, Moses SJ, Fallah MP, Plotz P, Katz JD. Rheumatology capacity building: implementing a rheumatology curriculum for Liberian health-care providers in 2016. Clin Rheumatol. 2020 Mar;39(3):689-696. doi: 10.1007/s10067-019-04817-6. Epub 2020 Jan 20. PMID: 31960207.
- Tansley SL, Snowball J, Pauling JD, Lissina A, Kuwana M, Rider LG, Rönnelid J, McHugh NJ; International Myositis Assessment and Clinical Studies (IMACS) Group Myositis Autoantibody Scientific Interest Group. The promise, perceptions, and pitfalls of immunoassays for autoantibody testing in myositis. Arthritis Res Ther. 2020 May 15;22(1):117. doi: 10.1186/s13075-020-02210-2. PMID: 32414409; PMCID: PMC7227250.
- Chung MP, Richardson C, Kirakossian D, Orandi AB, Saketkoo LA, Rider LG, Schiffenbauer A, von Mühlen CA, Chung L; International Myositis Assessment; Clinical Studies Group (IMACS) Calcinosis Scientific Interest Group. Calcinosis biomarkers in adult and juvenile dermatomyositis. Autoimmun Rev. 2020 Jun;19(6):102533. doi: 10.1016/j.autrev.2020.102533. Epub 2020 Mar 28. PMID: 32234404; PMCID: PMC7225028.
- 16. Saardi KM, Rosenstein RK, Anadkat MJ, Micheletti RG, **Schiffenbauer AI**, Pavletic SZ, Cowen EW. Calcinosis cutis in the setting of chronic skin Graft-Versus-Host Disease.

JAMA Dermatol. 2020 Jul 1;156(7):814-817. doi: 10.1001/jamadermatol.2020.1157. PMID: 32432645; PMCID: PMC7344382.

- 17. Kishi T, Warren-Hicks W, Bayat N, Targoff IN, Huber AM, Ward MM, Rider LG; with the **Childhood Myositis Heterogeneity Study Group**. Corticosteroid discontinuation, complete clinical response, and remission in juvenile dermatomyositis. Rheumatology (Oxford). 2021 May 14;60(5):2134-2145. doi: 10.1093/rheumatology/keaa371. PMID: 33067611; PMCID: PMC8121446.
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