A time of growth and transition

Many of you will receive this newsletter as you are on your way to the ACR meeting, and I look forward to seeing you at our reception on Saturday evening following the opening session. Michigan is once more very well represented at this meeting, with over 80 items on the program that reflect our diverse strengths in so many areas of rheumatology research. And we are again also represented in the ACR/ARHP leadership, and among the award recipients. Special congratulations to Dr. Afton Haslett as she completes an outstanding year as ARHP President.

In this issue of Rheuminations we also highlight our numerous recent successes in bringing new grant funding to our Division of Rheumatology. This includes at least 10 NIH grants awarded this year or scored at a level that funding is a virtual certainty over the next few months. Most of these are new grants that add to our already robust portfolio, and all are multiyear awards. Led by Professor Amr Sawalha, our Training Grant competitive renewal application was very favorably reviewed and received a score of 12 (on a scale of 10-90), assuring that it will be funded for another 5 years.

As many of you may know, I expect to step down from my administrative responsibilities as Division Chief and Rheumatology Clinical Service Chief in mid-2018. I have been the Division Chief since 1990, and have had the opportunity to work with dozens of outstanding faculty colleagues, fellows, clinical staff and research staff over the years. A search committee led by Ray Yung is working closely with the Internal Medicine Chair, John Carethers, to select the next Chief. I will welcome the chance to focus full time on research and patient care, while the Division benefits from new ideas and additional momentum that will be generated by its new leadership. Already, I am splitting the Service Chief role with Wendy Marder, who is developing creative and improved approaches to handling our triage process for new patient referrals which, at about 200/week, continue to outpace the growth in our numbers of new faculty and nurse practitioners.

We certainly face some complex challenges, especially in meeting the ever-escalating demands for our clinical services, but it is also valuable to put such issues into a broader perspective by considering the far greater challenges that our colleagues in Puerto Rico are dealing with, in the aftermath of an apocalyptic hurricane that destroyed almost all infrastructure on that island. Luis Vila, a distinguished alumnus of our fellowship program, is Chief of the Division of Rheumatology at the medical school in San Juan. I have been in touch with Luis, and know that he, together with his colleagues, staff and fellows, have been able to resume providing excellent care for their patients under extremely difficult conditions, even hoping to be able to send one or more fellows to this year’s ACR meeting. I am confident that all of you will join me in expressing our concern, admiration, encouragement and readiness to provide assistance to Luis and his unit. No doubt many of our colleagues in Texas and Florida have also had to cope with some very challenging situations in the aftermath of hurricanes that struck those areas recently.

For Luis and all of our Michigan rheumatology family, it has been a special pleasure and privilege for me to function as a link between what is happening in Ann Arbor and our alumni throughout the country and overseas. As we transition into new leadership next year, I am confident that these connections will remain strong. I want to especially thank our alumni for representing Michigan so well through your own superb clinical work, research efforts, dedication to teaching, service to your profession, and leadership in academia, government and industry. My very best wishes to each of you for continued professional and personal success and fulfillment.

Go Blue!
Faculty Promotions
(effective 9/1/2017)

Clinical Assistant Professor

Ruba Kado MD

Research Assistant Professor

Pei-Suen Eliza Tsou PhD

Clinical Associate Professor

Puja Khanna MD, MPH

Seetha Monrad MD

Elena Schiopu MD
Welcome to Our New Faculty

**New Appointments**

**Ruba Kado MD**
Associate Director, Fellowship Program

**Wendy Marder MD**
Associate Service Chief

**Seetha Monrad MD**
Joint appointment in the Department of Learning Health Sciences

**Dinesh Khanna MD, MSc**
Medical Director, Ambulatory and Chronic Disease Clinical Trials

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**Nada Abdulaziz MD**
Clinical Instructor

**Martin Garber DO**
Clinical Instructor

**Jiha Lee MD**
Clinical Assistant Professor

**Angela Malani MD**
Clinical Instructor

**Kathleen Menerey MD**
Clinical Instructor

**Deeba Minhas MD**
Clinical Lecturer

**Vivek Nagaraja MD**
Clinical Assistant Professor
CONGRATULATIONS to our 2017 Graduates!

Nada Abdulaziz MD
Clinical Instructor
Division of Rheumatology
University of Michigan
Ann Arbor, MI

Mousa Al Abbas MD
King Fahad Hospital
Dammam, Kingdom of Saudi Arabia

Emily Littlejohn DO
Faculty Rheumatologist
Cleveland Clinic
Lerner College of Medicine
Cleveland, OH

Navya Parsa MD
Assistant Professor
The University of Toledo
Toledo, OH

Please don’t forget to pay your annual dues.

William D. Robinson
Alumni Society

$75
pay online

First Year Fellows

Adam Kilian MD
Residency: University of Utah

Andrew Lewandoski DO
Residency: Medical College of Wisconsin

Ryan Massey MB BS
Residency: SUNY Downstate

David Roofeh MD
Residency: Sidney Kimmel Medical College at Thomas Jefferson University

Jacqueline Madison MD
Residency: University of Michigan
Joint Fellowship: Medicine/Pediatric Rheumatology

Second Year Fellows

Jesse Alperin MD is working on a project investigating monogenic lupus in Dr. Amr Sawalha’s lab.

Danielle Barnes MD is working on a project entitled The role of BATF2 in regulating interferon-mediated inflammatory responses in the skin in Dr. J Michelle Kahlenberg’s lab.

Amrita Padda MD is working on a project entitled Physician’s knowledge of fertility/ovarian function preservation modalities in rheumatic disease patients, with Dr. Somers and Dr. Marder.

Andrew Vreede MD is working on a project entitled Regulation of neutrophils by protease-activated receptors in Dr. Jason Knight’s lab.
David A. Fox MD: Paul DeKruif - Lifetime Achievement
The purpose of this award is to recognize lifetime achievement in the service of the academic missions of the University of Michigan Department of Internal Medicine. Congratulations on the occasion of this well-deserved honor Dr. Fox!

Dean’s Award Program. This program recognizes U-M Medical School faculty and staff who demonstrate exceptional accomplishment in the areas of teaching, research, clinical care, community service, innovation and administration.

- Vladimir Ognenovski MD: Global Community Service Award
  This award recognizes Dr. Ognenovski’s herculean efforts to develop medical care for patients with rheumatic diseases in Macedonia, his family’s country of origin. Beginning in 2009 he launched a sustained, multi-year project to upgrade rheumatology care for severely underserved patients. This project is still flourishing eight years later. His goals are to improve the quality of rheumatologic care and develop qualified rheumatology expertise in the second largest city, Bitola. The results of the project are substantial and ongoing. Dr. Ognenovski is on the far right.

- Daniel J. Clauw MD: Clinical and Health Services Research Award
  This award recognizes Dr. Clauw’s outstanding contributions to the Medical School in clinical/health services research.

J. Michelle Kahlenberg MD, PhD, will present the 2017 Rheumatology Research Foundation Edmond L. Dubois, MD Memorial Lecture at 4:30 pm on Sunday, Nov 5th. Abstract 897: Cutaneous Lupus is Driven by an Exaggerated Interferon Kappa Loop which Primes for Interferon Alpha Responses

Seetha Monrad MD: Alpha Omega Alpha Honor Medical Society
Election to Alpha Omega Alpha is an honor signifying a lasting commitment to scholarship, leadership, professionalism, and service. A lifelong honor, membership in the society confers recognition for a physician’s dedication to the profession and art of healing.

Elena Schiopu MD: ACR/EULAR Exchange Program January 2017 in Madrid, Spain
The purpose of the ACR/EULAR Exchange Program is to promote the international exchange of clinical and research skills, expertise and knowledge within rheumatology. The program recognizes outstanding rheumatology health professionals in both laboratory and clinic-based research, and provides exposure to the exciting work being done by colleagues overseas. This exchange program allows participants to share knowledge and experience, and creates opportunities for collaboration. Dr. Schiopu is on the left in this picture.

Elena Schiopu MD was also honored by The Learning Environment Task Force (LETF).
Dr. Schiopu was identified by U-M Medical School students as an exemplar in cultivating and upholding a positive learning environment. A student shared the following: “Dr. Schiopu displayed enormous dedication to each patient, paying heed to each concern and incorporating patient viewpoints into management. Additionally, she challenged me as a student to perform at a higher pace and level to match the needs of the clinic, while giving me autonomy in a clinical setting where it would have been much more efficient to have me do less.”

Dr. Afton Hassett PsyD is finishing her year as the 48th president of ARHP.
Dr. Hassett is a clinical psychologist and associate research scientist in the Department of Anesthesiology at the University of Michigan.

Pei-Suen Eliza Tsou PhD has been recommended as the first recipient of the Edward T. and Ellen K. Dryer Early Career Professorship in Rheumatology.
Dr. David Fox, Division Chief, had this to say last year when the Dryer professorship was established: “This professorship will give faculty members a solid footing from which to push their discoveries forward and build their careers. It will ensure that promising work toward curing arthritis continues.”

Doctor Shortage: Arthritic Ann Arborites are Waiting Three to Five Months for an Appointment to See a Rheumatologist. A report of the ACR Committee on Training & Workforce Issues (COTW), of which Seetha Monrad MD is a member, as reported by Jeff Mortimer in the Ann Arbor Observer, August 2017, pg. 17.
Dinesh Khanna MD, MSc. Service Spotlight Doc’s Commitment to Patient ‘Priceless’

Michigan Medicine received a letter recently from Michael Szekely who praised the diligence and commitment of Dinesh Khanna, M.D., M.Sc., in the treatment of his wife, Cathy. Here is what Michael shared about Dr. Khanna, the director of the Scleroderma Program at Michigan Medicine: “Dr. Dinesh Khanna has gone beyond the call of duty for my wife in order to obtain the drug she needed through our health insurance coverage. Dr. Khanna never stopped working every avenue he could think of and would never take ‘no’ for an answer.”

“I have seen visible relief in Cathy since she came to Michigan Medicine,” Michael said. “And it’s all because Dr. Khanna and other physicians and staff members worked tirelessly to help her.”

Khanna’s diligence is felt not only by patients, but by staff members as well.

“Dr. Khanna is very passionate about what he does and is a great teacher,” said Monica Sanborn, a research coordinator on his team. “He is always eager to teach new staff members, physicians and fellows how to provide the best care and service to patients.”

From following up and staying in touch with those he serves long after they have visited the clinic, to his commitment to training the next generation of health care experts, Dr. Khanna’s passion exemplifies the dedication of Michigan Medicine’s faculty and staff. (Michigan Medicine HEADLINES, Wednesday October 11, 2017)

Jason Knight MD, PhD. Journal Cover: Arthritis Care & Research, August 2017

The figure on the cover (right) is a microscopic view of the left anterior descending artery, demonstrating focal complete luminal occlusion with a dense intramural inflammatory response especially prominent at the media-adventitia interface.


Vladimir Ognenovski MD: Clinical Excellence Society

(University of Michigan, Department of Internal Medicine)

The Clinical Excellence Society recognizes faculty who exude and demonstrate clinical excellence towards their patients and colleagues. Inductees are nominated by their peers and their Division.

That’s Dr. O on the far right.
Scleroderma Program

Scleroderma Patient Education Video

In August 2016, the Scleroderma Program received a Friends of the University of Michigan Health System grant from the Patient Education Awards Committee (PEAC) to produce a patient education video. The video, Scleroderma: What You Can Expect After Diagnosis, provides patients with reliable information about what scleroderma entails, what they can expect at a typical clinic visit, an introduction to the services provided by the Peer Mentor program, and an update on the latest discoveries in scleroderma research happening at the University of Michigan, by the scientists and doctors who see patients in clinic. This video is designed to educate patients, and to provide coping strategies and hope for scleroderma patients and their families. The video is available on the Patient Information page at the Scleroderma Program website.

Scleroderma Patient Peer Mentor Program

The Scleroderma Peer Mentor Program is designed to help empower scleroderma patients to take control of their lives and their healthcare. Peer Mentors help patients understand and face the issues of the disease. They help patients think through alternatives, and cope with depression and anger that are natural to the process. They are positive role models who provide hope, encouragement and understanding.

Peer Mentors are volunteers of Michigan Medicine and have been trained through the Patient and Family Centered Care Program. There is a patient-peer mentor matching process and an evaluation process to help monitor and improve the service and program.

Dr. Dinesh Khanna
Grants & Funding

This list represents funding where Division of Rheumatology faculty members are Principal Investigators.

David Fox MD
- Gilead Sciences: Effects of filgotinib on JAK signaling and functional behavior of RA synovial fibroblasts
- NIH R21: Proinflammatory and autoantigenic properties of a novel citrullinated form of IL-6 in rheumatoid arthritis

Joseph Holoshitz MD
- NIH R01 renewal: Immune modulating HLA-coded ligands in rheumatoid arthritis

J Michelle Kahlenberg MD, PhD
- NIH R01: Characterization of interferon kappa as a novel target in cutaneous lupus
- NIH R03: Identification of BATF2 as a regulator of interferon-enhanced inflammatory responses in lupus skin
- Doris Duke Charitable Foundation (DDCF): A new paradigm in cutaneous lupus: dissecting the interplay between interferons and Staphylococcus aureus.
- Dr. Kahlenberg was recently selected as an Emerging Scholar of the A. Alfred Taubman Medical Research Institute (see sidebar).

Dinesh Khanna MD, MSc
- NIH R01: Systemic Sclerosis-Associated Interstitial Lung Disease Response Index
- Clinical Trial: A multi-centre, randomized, double-blind (sponsor open), placebo-controlled, repeat dose, proof of mechanism study to evaluate the safety, tolerability, pharmacokinetics pharmacodynamics and explore efficacy of GSK2330811 in subjects with diffuse cutaneous systemic sclerosis
- Clinical Trial: Pfizer-Tofacitinib Evaluation of Tofacitinib in early diffuse cutaneous systemic sclerosis: A phase I/II two center safety study

Puja Khanna MD, MPH
- Clinical Trial: A randomized, double-blind, active-control, multicenter, efficacy and safety and study of 2 dose levels of subcutaneous anakinra as compared to intramuscular triamcinolone in the treatment of acute gouty arthritis followed by one-year extension

Jason Knight MD, PhD
- NIH R01: Purinergic modulation of the autoimmune vascular phenotype (impact score 22; percentile 6.0)
- Arthritis National Research Foundation (ANRF) YR2: Thrombo-inflammatory role of neutrophils in lupus

The Emerging Scholars Program provides support for clinician-scientists on the U-M faculty who are in the early stages of their research careers. The Emerging Scholars Program offers an opportunity for them to establish their credentials in order to secure traditional funding in the future. They are aggressive “high risk, high reward” scientists who already have initiated a number of human clinical trials of new therapies for disease. The A. Alfred Taubman Medical Research Institute supports some of today’s most aggressive medical science researchers, all members of the University of Michigan Medical School faculty, with three-year grants that they use to fund their investigations. These clinician-scientists and their laboratory teams are working to combat a wide array of diseases: Scholars also serve as advocates for research by taking part in U-M efforts to educate the public about the importance of biomedical research and the need to provide support for scientific study.
Grants & Funding

Steven Lundy PhD
Received two anonymous gifts from private donors in the amounts of $50K and $60K. Also, renewal funding from the Mary H. Weiser Food Allergy Center for a pilot study: *Regulatory B Lymphocytes in Food Allergy*

Rory Marks MD
American College of Rheumatology, Rheumatology Research Foundation Amgen Fellowship Training Award 2017

Amr Sawalha MD
- NIH R01: Characterizing the Takayasu arteritis genetic risk in RPS9/LILRB3
- NIH T32 Supplement: Training of Arthritis Research Scientists
- NIH T32 renewal: Training of Arthritis Research Scientists (received an impact score of 12 and is expected to be funded).

Elena Schiopu MD
- Clinical Trial: *A Randomized, Double-Blind Study to Compare Pharmacokinetics and Pharmacodynamics, Efficacy and Safety of APB 798 with Rituximab in Subjects with Moderate to Severe Rheumatoid Arthritis*
- Clinical Trial: *Prospective Double-blind, Randomized, Placebo-Controlled Phase III Study Evaluating Efficacy and Safety of Octagam 10% in Patients with Dermatomyositis (ProDERM study).*
- Clinical Trial: *A Randomized, Double-Blind, Multicenter, 3-Stage, Efficacy and Safety Study of NI-071 and US-Licensed Remicade® (Infliximab) for the Treatment of Patients with Rheumatoid Arthritis.*
- Clinical Trial: *Treatments Against RA and Effect on FDG PET CT: The TARGET Trial*

Emily Somers PhD, ScM
- CDC U01 Renewal: *Michigan Lupus Epidemiology & Surveillance (MILES) Program Longitudinal Cohort & Biobank*

Gautam Sule PhD, Postdoc Research Fellow in Dr. Jason Knight’s lab
- U-M MICHR Postdoctoral Translation Scholars Program (PTSP), a two-year mentored project: *Neutrophil adhesion and thrombosis in lupus*

Pei-Suen (Eliza) Tsou PhD
- Arthritis National Research Foundation (ANRF): *The role of matricellular protein CYR61 in fibrosis and angiogenesis in scleroderma*

Amber Young MD
- Clinical Trial: *A multi-centre, randomized, double-blind (sponsor open), placebo-controlled, repeat dose, proof of mechanism study to evaluate the safety, tolerability, pharmacokinetics pharmacodynamics and explore efficacy of GSK2330811 in subjects with diffuse cutaneous systemic sclerosis.*
- Clinical Trial: Efficacy and safety of SAR156597 in the treatment of diffuse cutaneous *Systemic Sclerosis (dcSSc): A randomized, double-blind, placebo-controlled, 24-week, proof of concept study.*
### Administrative Staff

**Congratulations on their new positions**

- **Jan Stevens**, Access Manager, Department of Internal Medicine
- **Robin Henry**, Contract & Grant Specialist, Clinical Trials Unit: Ambulatory and Chronic Disease
- **Beth Talbot**, Research Process Coordinator, College of Pharmacy

**Welcome to our new administrative staff members**

- **Gary Smith**, Division Administrator
- **Carrie Mell**, Financial Specialist Senior

### Clinical Staff

**Carol Dodge, Occupational Therapist Registered, Certified Hand Therapist.** Recipient: 2017 ARHP Distinguished Clinician

**Debra Rizzo, Nurse Practitioner.** Recipient: 2017 ARHP Distinguished Clinician

**Susan Olsson, RN.** Retired

### Janet Stevens Patient Support Fund in Rheumatology

This year, Jan Stevens, our longtime Division Administrator, transferred to a new position within the Department of Internal Medicine.

“One of Jan’s great strengths has been her dedication to the best possible clinical care for each of our patients. She worked tirelessly to optimize the patient experience, and she has an unusually deep understanding of the challenges and opportunities that we face in our clinical work. Jan embraced the entire field of rheumatology, not just its administrative aspects, and her accomplishments and high profile in the ACR reflect this.” (Dr. David Fox)

Accordingly, to thank her and honor her for her numerous and wide-ranging contributions to the successes of the Division of Rheumatology a fund has been established to provide assistance to one or more of our patients and their families.

We hope you will consider a donation to the **Janet Stevens Patient Support Fund in Rheumatology**.

### Legislative Update

**Advocates for Arthritis** is an annual event in Washington, DC that brings together rheumatology professionals and patients from all over the country to advocate on behalf of the rheumatology community. Dr. Tim Laing, Dr. Anjali Sura, Jan Stevens, and Cindy Bourke and her daughter Shannon represented the University of Michigan in September attending meetings with several Senators and Representatives (pictured here with Michigan Senator Gary Peters).

Last year the group advocated for Repealing Medicare Therapy “Caps” and funding for arthritis and rheumatic disease research. This year advocates are asking Congress to create a stand-alone arthritis research program at the Department of Defense and to support patient access to life-saving biologic drugs. Cindy Bourke values this opportunity “to engage in the legislative process and to help increase awareness of rheumatology on Capitol Hill.”
The Division of Rheumatology wholly embraces the University of Michigan’s standards of excellence in education. Supporting fellowships in this field is more important than ever. As our country’s population rapidly ages, there simply are not enough physicians to meet the growing need. We know how critical our work is to the health of our community — they are counting on our ability to train up-and-coming leaders in medicine and science. Access to fellowships will encourage early career physicians to consider rheumatology as a field, and afford them the opportunity to receive the best possible instruction by our faculty who work tirelessly to provide them with the tools they need to succeed as incomparable stewards of care.

Jack J. Distler, Ph.D., was educated at Michigan State University with a BS degree in zoology and the University of Michigan with a Ph.D. degree in Biological Chemistry. At U-M he taught Botany and Biological Chemistry and in 1964 joined the Rackham Arthritis Research Unit of the Department of Internal Medicine. He was recognized for contributions to the understanding of the metabolism of protein-polysaccharides associated with connective tissue. He also collaborated in the now classical means for the chemical synthesis of sugar nucleotides and further defined mechanisms for the uptake and intracellular trafficking of lysosomal enzymes in connective tissue cells. In 1989, he retired and was granted Emeritus status by the Regents of the University of Michigan.

Dr. Distler was a model of a conscientious researcher and valued educator. He was respected by graduate students and clinical trainees, both as a teacher and for his insight and depth of knowledge. His opinions were sought out by his peers and other institutions as he made significant contributions to the excellence of the scientific studies on connective tissue metabolism.

After his passing in May 2016, his wife Ruth Ann decided she would like to do something to honor Jack and support those following a scientific research path. In March of 2017, she made a generous gift to the Division of Rheumatology to create the Jack J. Distler, Ph.D., Research and Training Endowment Fund. The Fund will be used for the retention, recruitment, education, and travel of rheumatology students working on M.D./Ph.D. or Ph.D. degrees. It may also provide seed support for Ph.D. research scientists in the area of rheumatic diseases who are in the gap or transition years and support training and career development of post-doctoral Ph.D. research trainees. In addition to this wonderful tribute, Ruth Ann also donated many books and publications from Jack’s personal library to the Division.

Emma’s Gift to the Lupus Program

An Act of Kindness and Generosity

Not long ago Dr. Joseph McCune received a phone call from Emma, an 11-year-old granddaughter of one of his patients. Emma and her classmates had a fundraising project and raised $273.30 to go towards lupus research to help find a cure for Emma’s grandmother who has lupus.

Emma and her classmates' generous contribution will be put to work supporting lupus research through the Herb and Carol Amster Lupus Research Foundation.
Jack J. Distler, PhD
12/07/1928 - 05/31/2016

Jack J. Distler of Ann Arbor passed away Tuesday, May 31, 2016. He was born December 7, 1928 in Pontiac, MI, a son of John and Julia (Diedrich) Distler. Jack holds a BS degree in zoology from Michigan State University and a Ph.D. degree in Biological Chemistry from the University of Michigan. At U of M he taught Botany and Biological Chemistry and in 1964 joined the Rackham Arthritis Research Unit of the Department of Internal Medicine. He is recognized for contributions to the understanding of the metabolism of protein-polysaccharides associated with connective tissue. He also collaborated in the now classical means for the chemical synthesis of sugar nucleotides and further defined mechanisms for the uptake and intracellular trafficking of lysosomal enzymes in connective tissue cells. 1989 he retired and was granted Emeritus status by the U of M Regents. Jack was a member of St. Francis of Assisi Catholic Church, the American Association for the Advancement of Science, the American Society of Biological Chemistry, and Sigma XI Research Society. He is survived by his wife, Ruthann Bertle Distler, brother Robert Distler of Lansing and several nieces and nephews. He is preceded in death by his parents and brother, David Distler.

Joan Mikkelsen
04/30/1930 - 10/02/2017

Joan is survived by her husband of 69 years, Dr. William Mikkelsen, faculty (retired) U-M Division of Rheumatology, and her four surviving children. She was an elementary school teacher with the Ann Arbor Public Schools for many years and an active participant with community organizations including the League of Women Voters, Planned Parenthood, the Democratic Party, and the Ann Arbor Art Fair.
Of special note: Jessie Alperin MD, a second year fellow, will display a poster (Abstract 2095) detailing her work with Dr. Elena Schiopu and others about the use of traditional disease modifying anti-rheumatic drugs in ICI-induced inflammatory arthritis.
University of Michigan Alumni & William D. Robinson Society Reception
Saturday, November 4th • 7 - 10:00 PM
The Red Patio at Lou & Mickey’s • 224 5th Avenue

Saturday, Nov 4
Opening Lecture and Awards & Opening Reception

FAUCI, Anthony MD
Title: Emerging & Re-Emerging ID: From AIDS to Zika
Session: Opening Lecture & Awards
Date: Saturday, Nov 4, 4:30 PM
Duration: 1 hour 45 minutes
Location: 20 A-D

Networking: Opening Reception • 6:30 - 8:00 PM • Hilton – Sapphire Ballrooms

Oral Presentations

Sunday, Nov 5

KAHLENBERG, J. Michelle, MD, PhD
Title: Cutaneous Lupus is Driven by an Exaggerated Interferon Kappa Loop which Primes for Interferon Alpha Responses (Abstract 897)
Session: Edmond L. Dubois, MD, Memorial Lecture
Date, Time: Sunday, Nov 5, 4:30 PM
Duration: 30 minutes
Location: 6 D

Monday, Nov 6

CLAUW, Daniel J., MD
Title: Research Update: Fitness with Fatigue and Persistent Pain
Session: Fitness Interventions for Fatigue & Pain: Navigate Your Patient's Challenges
Date, Time: Monday, Nov 6, 7:30 AM
Duration: 30 minutes
Location: 11 A

WILLIAMS, David J.
Title: Challenges and Strategies to Help Clients Improve Their Fitness
Session: Fitness Interventions for Fatigue & Pain: Navigate Your Patient's Challenges (Abstract
Date, Time: Monday, Nov 6, 8:30 AM
Duration: 30 minutes
Location: 11 A

MURPHY, Susan L., ScD (Associate Professor, Dept. of Physical Medicine & Rehabilitation)
Title: Feasibility and Preliminary Effects of a Novel Rehabilitation Strategy to Improve Hand and Arm Function in Systemic Sclerosis (Abstract 1855)
Session: ACR/ARHP Combined: Orthopedics and Rehabilitation Science
Date, Time: Monday, Nov 6, 3:45 PM
Duration: 15 minutes
Location: 10
BRUMMETT, Chad M., MD (Associate Professor, Dept. of Anesthesiology)
Title: Validation of an Electronic Version of the Michigan Body Map (Abstract 1870)
Session: Fibromyalgia, Soft Tissue Disorders, Regional and Specific Clinical Pain Syndromes
Date, Time: Monday, Nov 6, 5:00 PM
Duration: 15 minutes
Location: 33 C

Tuesday, Nov 7

CLAUW, Daniel J., MD (Professor, Dept. of Anesthesiology)
Title: Fibromyalgia 2017: Update on Management
Session: Meet the Professor
Date, Time: Tuesday, Nov 7, 7:45 AM
Duration: 1 hour 30 minutes
Location: Hilton – Indigo Ballroom B

KHANNA, Dinesh, MD, MSc
Title: Pulmonary Hypertension in the Rheumatic Diseases
Session: Meet the Professor
Date, Time: Tuesday, Nov 7, 12:45 PM
Duration: 1 hour 30 minutes
Location: Hilton – Indigo Ballroom B

SAWALHA, Amr H., MD
Title: Behçet's Disease
Session: Study Group
Date, Time: Tuesday, Nov 7, 1:00 PM
Duration: 60 minutes
Location: 6 C

ALI, Ramadan, PhD. (Knight Lab)
Title: Adenosine Receptor Agonism Protects Against Antiphospholipid Antibody-Mediated Netosis and Venous Thrombosis (Abstract 2761)
Session: Antiphospholid Syndrome
Date, Time: Tuesday, Nov 7, 3:00 PM
Duration: 5 minutes
Location: 33 C

Wednesday, Nov 8

CLAUW, Daniel J., MD
Title: When Osteoarthritis Meets Fibromyalgia
Session: Evolving Concepts in Fibromyalgia
Date, Time: Tuesday, Nov 8, 9:00 AM
Duration: 30 minutes
Location: 30 E

STINSON, W Alexander, BS (former trainee: Fox Lab)
Title: Fucosyltransferase-1 Mediates Macrophage Driven Myofibroblast Differentiation and TGF-β Signaling in Systemic Sclerosis and Bleomycin-Induced Fibrosis (Abstract 2926)
Session: Systemic Sclerosis, Fibrosing Syndromes and Raynaud's – Pathogenesis, Animal Models and Genetics II
Date, Time: Wednesday, Nov 8, 9:00 AM
Duration: 15 minutes
Location: 10
LEE, Jiha, MD  
**Title:** Persistently Frequent Emergency Department (ED) Utilization Among Systemic Lupus Erythematosus (SLE) Patients ([Abstract 2892])  
**Session:** Health Services Research: Methods & Technology in Care & Research  
**Date, Time:** Wednesday, Nov 8, 9:30 AM  
**Duration:** 15 minutes  
**Location:** 31 C

SCHREPF, Andrew, PhD  
**Title:** The Neural Correlates of Inflammation in RA: A Multi-Modal MRI Study ([Abstract 2912])  
**Session:** Rheumatoid Arthritis – Clinical Aspects VI: Comorbidities of Rheumatoid Arthritis  
**Date, Time:** Wednesday, Nov 8, 10:00 AM  
**Duration:** 15 minutes  
**Location:** 28 A - E

KHANNA, Dinesh, MD, MSc  
**Title:** Evaluation of American College of Rheumatology Provisional Composite Response Index in Systemic Sclerosis (CRISS) in the Fasscinate Trial ([Abstract 2981])  
**Session:** Systemic Sclerosis, Fibrosing Syndromes and Raynaud's – Clinical Aspects and Therapeutics III  
**Date, Time:** Wednesday, Nov 8, 11:15 AM  
**Duration:** 15 minutes  
**Location:** 32 B

CHAROENWOODHIPONG, Prae (former trainee, Somers Lab)  
**Title:** Omega Polyunsaturated Fatty Acids and Systemic Lupus Erythematosus (SLE): the Michigan Lupus Epidemiology & Surveillance (MILES) Program ([Abstract 2986])  
**Session:** ARHP Epidemiology and Public Health  
**Date, Time:** Wednesday, Nov 8, 11:00 AM  
**Duration:** 15 minutes  
**Location:** 23 A

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**Guided Poster Tour**

FOX, David A., MD  
**Session:** Rheumatology 360  
**Date/Time:** Monday, Nov 6, 9:00 AM  
**Duration:** 45 minutes  
**Location:** Poster Hall C  
**Note:** Pre-registration is required and the tour is limited to 20 participants.

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**Moderator**

HASSETT, Afton, PsyD  
**Session:** Opening Lecture & Awards: Emerging & Re-Emerging ID: From AIDS to Zika  
**Date, Time:** Saturday, Nov 4, 4:30 PM  
**Duration:** 90 minutes  
**Location:** 20 A - D

WILLIAMS, David, PhD  
**Session:** ARHP Education/Community Programs (1856 - 1861)  
**Date, Time:** Monday, Nov 6 4:30 PM  
**Duration:** 90 minutes  
**Location:** 24 A
University of Michigan Abstracts

Sunday, November 5

**Antiphospholipid Syndrome Poster**, Session Time: 9:00AM - 11:00AM

**ABSTRACT NUMBER: 8**

*Antiphospholipid Syndrome Leukocytes Demonstrate Increased Adhesive Potential: a Search for Novel Therapeutic Targets*

Gautam Sule, William J. Kelley, Srilakshmi Yalavarthi, Alison Banka, Omolola Eniola-Adefeso and Jason S. Knight, University of Michigan, Ann Arbor, MI

**ABSTRACT NUMBER: 12**

*Antiphospholipid Syndrome Alliance for Clinical Trials and International Networking (APS Action) Clinical Database and Repository Analysis: Pregnancy Outcome Since Inception*

Ecem Sevim1, Danielli Andrade2, Alessandra Banzato3, D. Ware Branch4, Ricard Cervera5, Guilherme Ramires de Jesus6, Jason S. Knight7, Pier Luigi Meroni8, Maria Tektonidou9, Angela Tincani10, Amaia Ugarte11, Zhang Zhuoli12, Doruk Erkan13 and, on Behalf of APS ACTION.14, 1Umraniye Research and Training Hospital, Istanbul Health Sciences University, Istanbul, Turkey, 2Rheumatology, Hospital das Clinicas HCFMUSP, Faculdade de Medicina, Universidade de Sao Paulo, Sao Paulo, SP, BR., Sao Paulo, Brazil, 3Department of Cardiac Thoracic and Vascular Sciences, Clinical Cardiology, Thrombosis Centre, University of Padova, Padova, Italy, 4Obstetrics and Gynecology, University of Utah and Intermountain Healthcare, Salt Lake City, UT, 5Department of Autoimmune Diseases, Institut Clinics de Medicina i Dermatologia, Hospital Clinic de Barcelona, Barcelona, Spain, 6Obstetrics, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil, 7., University of Michigan, Ann Arbor, MI, 8Istituto Ortopedico Gaetano Pini, University of Milan, Milano, Italy, 9First Department of Internal Medicine, School of Medicine, National University of Athens, Athens, Greece, 10Rheumatology and Clinical Immunology, Spedali Civili and University of Brescia, Brescia, Italy, 11Autoimmune Diseases Research Unit, Department of Internal Medicine, BioCruces Health Research Institute, Hospital Universitario Cruces, University of the Basque Country, Biscay, Spain, 12Department of Rheumatology and Immunology,Peking University First Hospital, Peking University First Hospital, Beijing, China, 13Rheumatology, Hospital for Special Surgery- Weill Cornell Medicine, New York, NY, 14., New York, NY

**Epidemiology and Public Health Poster I: Comorbidities and Outcomes of Systemic Inflammatory Diseases.** Session Time: 9:00AM-11:00AM

**ABSTRACT NUMBER: 148**

*Lack of Screening By Rheumatologists and Primary Care Physicians for Childhood Sexual Abuse in Patients with Fibromyalgia-Depression Overlap: An Unrecognized Crisis?*

M. Anthony Albornoz1, Christian Albornoz2 and Daniel J. Clauw3, 1Rheumatology, Riddle Memorial Hospital/Mainline Health System, Media, PA, 2Temple University School of Medicine, Philadelphia, PA, 3Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI

**Genetics, Genomics and Proteomics Poster I**, Session Time: 9:00AM-11:00AM
ABSTRACT NUMBER: 174
Transcriptional Profiling of Synovial Macrophages from RA Patients to Capture Disease Heterogeneity
Philip J. Homan, Arthur M. Mandelin II, Salina Dominguez, Emily Bacalao, S. Louis Bridges Jr., Joan M. Bathon, John Atkinson, David Fox, Eric L. Matteson, Chris Buckley, Costantin Pitzalis, Deborah Parks, Laura Hughes, Laura Geraldino-Pardilla, Robert Ike, Kristine Phillips, Kerry Wright, Andrew Filer, Stephen Kelly, Eric M. Ruderman, Carla Cuda, Hiam Abdala-Valencia, Alexander Misharin, G. R. Scott Budinger, Richard M. Pope, Harris Perlman, and Deborah R. Winter, 1 Department of Medicine Division of Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 2Rheumatology, Northwestern University, Chicago, IL, 3Northwestern University, Chicago, IL, 4Clinical Immunology & Rheum, Univ of Alabama, Birmingham, AL, 5Division of Rheumatology, Columbia University Medical Center, New York, NY, 6Washington University in St. Louis, St. Louis, MO, 7Department of Medicine [Division of Rheumatology], University of Michigan Medical System, Ann Arbor, MI, 8Rheumatology, Mayo Clinic College of Medicine and Science, Rochester, MN, 9University of Birmingham, Birmingham, United Kingdom, 10Centre for Experimental Medicine and Rheumatology, William Harvey Research Institute, Barts and The London, School of Medicine and Dentistry, Queen Mary University of London, London, United Kingdom, 11Washington University School of Medicine in St. Louis, St. Louis, MO, 12University Alabama Birmingham, Birmingham, AL, 13Columbia University, New york, NY, 14Division of Rheumatology, University of Michigan, Ann Arbor, MI, 15University of Michigan, Ann Arbor, MI, 16Rheumatology, Mayo Clinic, Rochester, MN, 17Institute of Inflammation and Ageing (IIA), University of Birmingham, Birmingham, United Kingdom, 18William Harvey Research Institute, London, United Kingdom, 19Medicine/Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 20Department of Medicine, Division of Rheumatology, Northwestern University Feinberg School of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL.

ABSTRACT NUMBER: 178
Genome-Wide DNA Methylation Study in Lupus in an Admixed Mexican Population
Maria Teruel, Patrick Coit, Mikhail Dozmoro, Mario Cardiel, Ignacio Garcia-De-La-Lorre, Marco A Maradiaga-Ceceña, José Francisco Montezuma, María Teresa Tusié-Luna, Marta Alarcón-Riquelme, and Amr H Sawalha, 1GENYO, Center for Genomics and Oncological Research Pfizer/University of Granada/Andalusian Regional Government, Granada, Spain, 2Division of Rheumatology, University of Michigan, Ann Arbor, MI, 3Department of Biostatistics, Virginia Commonwealth University, Richmond, VA, 4Centro de Investigación Clínica de Morelia SC, Morelia, Mexico, 5Immunology & Rheumatology, Centro de Est. de Invest. Bas. y Clin., S.C., Guadalajara, JAL, Mexico, 6Hospital General de Cullacán, Cullacán, Mexico, 7Servicio de Reumatología, Hospital General de Mexico, Ciudad de Mexico, Mexico, 8Medicina Genómica y Toxicología Ambiental, Universidad Nacional Autonoma de Mexico, Ciudad de Mexico, Mexico, 9Uppsala University, Uppsala, Sweden, 10Centro de Genomica e Investigacion Oncologica, Pfizer-University of Granada-Junta de Andalucía, Granada, Spain.

Health Services Research Poster I, Session Time: 9:00AM-11:00AM

ABSTRACT NUMBER: 194
Kinesiophobia Moderates the Association between Anxiety and Disability in Chronic Low Back Pain
Jenna Goesling, Stephanie Moser, Jennifer Pierce, and Christian Bolton, 1Department of Anesthesiology, University of Michigan, Ann Arbor, MI, 2Anesthesiology, University of Michigan, Ann Arbor, MI, 3University of Michigan, Ann Arbor, MI.

Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Clinical Aspects and Therapeutics Poster I, Session Time: 9:00AM-11:00AM

ABSTRACT NUMBER: 726
Keratinocyte-Associated IL-6 Is Elevated in Cutaneous Lupus Rashes and Production of IL-6 By Performance of the American College of Rheumatology Provisional Composite Response Index in Systemic Sclerosis (CRiSS) in the Scleroderma Lung Study-I
Dinesh Khanna, Donald P. Tashkin, Holly Wilhalme and Chi-hong Tseng, 1University of Michigan, Ann Arbor, MI, 2University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 3Medicine, University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA.

ABSTRACT NUMBER: 729
Clinically Relevant Serum Proteins in Patients with Early Diffuse Cutaneous Systemic Sclerosis
Guoshuai Cai, Kelsey S. Flood, Shervin Assassi, Elana J. Bernstein, Robyn T. Domisc, Jessica K. Gordon, Faye Hant, Elena Schiopu, Virginia D. Steen, Tracy M. Frech, Dinesh Khanna, Ami A. Shah, Victoria K. Shanmugam, Flavia V. Castelino and Monique Hinchcliff, 1Department of Molecular and Systems Biology, Geisel School of Medicine.
Progression of Skin Fibrosis Is Associated with Decline in Lung Function in Patients with Diffuse Cutaneous Systemic Sclerosis: A European Scleroderma Trials and Research (EUSTAR) Analysis

Wanlong Wu¹, Suzana Jordan², Nicole Graf³, Janethe Pena⁴, John Curram⁵, Yannick Allanore⁶, Marco Matucci-Cerinic⁷, Janet E. Pope⁸, Christopher Denton⁹, Dinesh Khanna¹⁰ and Oliver Distler¹¹. ¹Department of Rheumatology, Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, ²Department of Rheumatology, University Hospital Zurich, Zurich, Switzerland, ³Graf Biostatistics, Winterthur, Switzerland, ⁴Bayer HealthCare Pharmaceuticals Inc, Whippany, NJ, ⁵Bayer Plc, Newbury, United Kingdom, ⁶Department of Rheumatology, Cochin Hospital, Paris Descartes University, Paris, France, ⁷Dept of Medicine/Div of Rheum, University of Florence, Florence, Italy, ⁸Department of Medicine, Division of Rheumatology, University of Western Ontario, St Joseph's Health Care, London, ON, Canada, ⁹Department of Rheumatology, University College London, Royal Free Hospital, London, United Kingdom, ¹⁰Division of Rheumatology, Department of Internal Medicine, Scleroderma Program, University of Michigan, Ann Arbor, MI.

Correlation of the American College of Rheumatology Provisional Composite Response Index in Systemic Sclerosis with Serum Biomarkers of Fibrogenesis in an Observational Cohort

Giuseppina Abignano¹, Sookhoe Eng², Maya H. Buch³, Paul Emery⁴, Dinesh Khanna⁵ and Francesco Del Galdo⁶. ¹Rheumatology Department of Lucania, Rheumatology Institute of Lucania (IReL), San Carlo Hospital of Potenza and Madonna delle Grazie Hospital of Matera, Potenza, Italy, ²Leeds Musculoskeletal Biomedical Research Centre, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, ³NIHR-Leeds Musculoskeletal Biomedical Research Unit, Leeds, United Kingdom, ⁴NIHR Leeds Biomedical Research Centre, Leeds Teaching Hospitals NHS Trust, Leeds, United Kingdom, ⁵University of Michigan, Ann Arbor, MI.

An International Qualitative Research Study Exploring the Patient Experience of Raynaud’s Phenomenon in Systemic Sclerosis

John D. Pauling¹,², Robyn T. Domsic¹, Lesley Ann Saketkoo³, Celia Almeida⁴, Tracy M. Frech⁵, Francesca Ingegnoli⁷, Jane Withey⁸, Hilary Jay⁹, Emma Dures⁹, Joanna Robson¹⁰, Neil J. McHugh¹¹,¹², Ariane L. Herrick¹³,¹⁴, Marco Matucci-Cerinic¹⁵, Dinesh Khanna¹⁶ and Sarah Hewlett¹⁷. ¹Department of Pharmacy and Pharmacology, University of Bath, Bath, United Kingdom, ²Department of Rheumatology, Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, ³Medicine - Rheumatology, University of Pittsburgh, Pittsburgh, PA, ⁴Tulane, New Orleans, LA, ⁵HAS - Nursing and Midwifery, University of the West of England, Bristol, United Kingdom, ⁶Division of Rheumatology, University of Utah, Salt Lake City, UT, ⁷Dept. of clinical and community science, Rheumatology, Istituto G. Pini, University of Milan, Milano, Italy, ⁸Patient Research Partner, Bath, United Kingdom, ⁹Academic Rheumatology, Bristol, University of the West of England, Bristol, United Kingdom, ¹⁰Rheumatology, University of the West of England (UWE Bristol), Bristol, United Kingdom, ¹¹Rheumatology, Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, ¹²Department of Pharmacy and Pharmacology, The University of Bath, Bath, United Kingdom, ¹³Centre for Musculoskeletal Research, University of Manchester, MAHSC, Salford Royal Hospital, Manchester, United Kingdom, ¹⁴School of Translational Medicine, University of Manchester, Manchester Academic Health Science Centre, Manchester, United Kingdom, ¹⁵Dept of Medicine/Div of Rheum, University of Florence, Florence, Italy, ¹⁶Department of Medicine, University of Michigan Scleroderma Program, Ann Arbor, MI, ¹⁷UWE Academic Rheumatology, University of West of England, Bristol, United Kingdom.

Treatment with Cyclophosphamide for Systemic Sclerosis-Interstitial Lung Disease Does Not Lead to a Sustained Improvement in Lung Function in Two Independent Cohorts

Elizabeth R. Volkman¹, Donald P. Tashkin¹, Myung Sim¹, Ning Li², Dinesh Khanna³, Michael Roth⁴, Philip J. Clements⁴, Anna-Maria Hoffmann-Vold⁵, Daniel E. Furst⁶, Grace Kim⁶, Jonathan Golden⁷ and Robert Elashoff⁸. ¹University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, ²Biomathematics, University of California, Los Angeles, CA, ³San Francisco General Hospital, San Francisco, CA, ⁴University of Washington, Seattle, WA, ⁵University of California, San Francisco, CA, ⁶University of Michigan, Ann Arbor, MI, ⁷University of Minnesota, Minneapolis, MN, ⁸MedStar Georgetown University Hospital, Washington, DC.
ABSTRACT NUMBER: 767

**Elevated MeCP2 Expression in Diffuse Cutaneous Systemic Sclerosis Dermal Fibroblasts Is Associated with Anti-Fibrotic Effects**

Yei He\(^1\), Pei-Suen Tsou\(^1\), Dinesh Khanna\(^1\) and Amr H Sawalha\(^1\), \(^1\)Rheumatology, University of Michigan, Ann Arbor, MI

**Pain – Basic and Clinical Aspects Oral, Session Time: 2:30PM-4:00PM**

ABSTRACT NUMBER: 858, **Concurrent Abstract Session**

**Identification of Clinically Relevant Pain Profiles in Individuals with Active RA**

Alyssa Wohlfahrt\(^1\), Zhi Zhang\(^1\), Bing Lu\(^1\), Clifton O. Bingham III\(^1\), Marcy B. Bolster\(^4\), Wendy Marder\(^5\), Larry W. Moreland\(^6\), Kristine Phillips\(^7\), Tuhina Neogi\(^8\) and Yvonne C. Lee\(^9\), \(^1\)Rheumatology, Immunology and Allergy, Brigham and Women's Hospital, Boston, MA, \(^2\)Rheumatology, Immunology and Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, \(^3\)Rheumatology, Johns Hopkins University, Baltimore, MD, \(^4\)Division of Rheumatology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, \(^5\)Rheumatology, Immunology and Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, \(^6\)Rheumatology, Johns Hopkins University, Baltimore, MD, \(^7\)Department of Medicine, Temple University School of Medicine, Philadelphia, PA, \(^8\)Division of Rheumatology, Immunology and Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, \(^9\)Rheumatology, Immunology and Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

**2017 Rheumatology Research Foundation Edmond L. Dubois, MD Memorial Lecture, Cutaneous Lupus is Driven by an Exaggerated Interferon Kappa Loop which Primes for Interferon Alpha Responses**

J. Michelle Kahlenberg

4:30 PM - 5:00 PM

ABSTRACT NUMBER: 897, **Concurrent Abstract Session**

**Cutaneous Lupus Is Driven by an Exaggerated Interferon Kappa Loop Which Primes for Interferon Alpha Responses**

Johann Guðjónsson\(^1\), Mrinal Sarkar\(^1\), Alex Tsoi\(^1\), Celine C. Berthier\(^3\), Grace Hile\(^4\), Yun Liang\(^6\), Jianhua Liu\(^6\), Paul Harms\(^6\) and J. Michelle Kahlenberg\(^7\), \(^1\)Dermatology, University of Michigan, Ann Arbor, MI, \(^2\)Departments of Dermatology and Computational Medicine and Bioinformatics, University of Michigan, Ann Arbor, MI, \(^3\)Nephrology, Division of Nephrology, University of Michigan Medical Center, Ann Arbor, MI, \(^4\)University of Michigan, Ann Arbor, MI, \(^5\)Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, \(^6\)Pathology, University of Michigan, Ann Arbor, MI, \(^7\)Internal Medicine, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI

**Healthcare Disparities in Rheumatology, Session Time: 4:30PM-6:00PM**

ABSTRACT NUMBER: 919, **Concurrent Abstract Session**

**HLA Type Imputation in the Genome Research in African American Scleroderma Patients (GRASP) Cohort Reveals Strong Associations of African Ancestry MHC Class II Types with Scleroderma and Lack of Class I HLA Type Association**

Elaine F. Remmers\(^1\), Pravitt Gourh\(^2\), Steven Boyden\(^3\), Nadia D. Morgan\(^4\), Ami A. Shah\(^4\), Adebowale Adyemo\(^1\), Amy Bentley\(^1\), Mary A. Carns\(^5\), Settara C. Chandrasekharappa\(^1\), Lorinda Chung\(^6\), Lindsey A. Criswell\(^7\), Chris T. Derk\(^8\), Robyn T. Domsic\(^9\), Ayo Doumatey\(^1\), Heather Glade\(^1\), Avram Goldberg\(^1\), Jessica K. Gordon\(^1\), Vivien M Hsu\(^1\), Reem Jan\(^14\), Dinesh Khanna\(^15\), Maureen D. Mayes\(^15\), Thomas A. Medsger Jr.\(^17\), Paula S. Ramos\(^18\), Marcin A. Trojanowski\(^19\), Lesley A. Saketkoo\(^20\), Elena Schiopu\(^15\), Victoria K. Shanmugam\(^21\), Daniel Shriver\(^1\), Richard M. Silver\(^22\), Virginia D. Steen\(^23\), Antonia Valenzuela\(^24\), John Varga\(^25\), Charles Rotimi\(^1\), Fredrick M. Wigley\(^26\), Francesco Boin\(^27\) and Daniel L. Kastner\(^28\), \(^1\)National Institutes of Health (NIH), National Human Genome Research Institute, Bethesda, MD, \(^2\)NIAMS-Rheumatology, National Institutes of Health (NIH), \(^3\)National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, MD, \(^4\)National Institutes of Health (NIH), National Institute on Deafness and Other Communication Disorders, Bethesda, MD, \(^5\)Rheumatology, Johns Hopkins University School of Medicine, Baltimore, MD, \(^6\)Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL, \(^7\)Rheumatology, Stanford University Medical Center, Palo Alto, CA, \(^8\)Medicine/Rheumatology, University of California, San Francisco, San Francisco, CA, \(^9\)Rheumatology, University of Pennsylvania, Philadelphia, PA, \(^10\)Rheumatology, University of Pittsburgh, Pittsburgh, PA, \(^11\)Rheumatology, University of North Carolina, Chapel Hill, NC, \(^12\)NIAMS-Rheumatology, National Institutes of Health (NIH), National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, MD, \(^13\)National Institutes of Health (NIH), National Institute on Deafness and Other Communication Disorders, Bethesda, MD, \(^14\)Rheumatology, Johns Hopkins University School of Medicine, Baltimore, MD, \(^15\)Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL, \(^16\)Rheumatology, Stanford University Medical Center, Palo Alto, CA, \(^17\)University of Michigan, Ann Arbor, MI, \(^18\)Clinical and Translational Research, University of California, San Francisco, San Francisco, CA, \(^19\)Rheumatology, University of Pennsylvania, Philadelphia, PA, \(^20\)Rheumatology, University of California, Los Angeles, CA, \(^21\)NIAMS-Rheumatology, National Institutes of Health (NIH), National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, MD, \(^22\)Rheumatology, University of Washington, Seattle, WA, \(^23\)Rheumatology, University of California, Los Angeles, CA, \(^24\)Rheumatology, University of Pennsylvania, Philadelphia, PA, \(^25\)Rheumatology, University of California, Los Angeles, CA, \(^26\)Medicine, University of California, Los Angeles, CA, \(^27\)Radiology, University of California, Los Angeles, CA, \(^28\)National Institutes of Health (NIH), National Human Genome Research Institute, Bethesda, MD, \(^29\)Rheumatology, University of California, Los Angeles, CA
Osteoporosis Consultants of the Carolinas, Charlotte, NC; NYU Langone Medical Center, New York, NY; University of Medicine and Dentistry of New Jersey--Robert Wood Johnson Medical School, New Brunswick, NJ; Medicine, Rheumatology, University of Chicago, Chicago, IL; University of Michigan, Ann Arbor, MI; University of Texas McGovern Medical School, Houston, TX; Department of Medicine/Rheumatology, University of Pittsburgh, Pittsburgh, PA; Department of Public Health Sciences, Medical University of South Carolina, Charleston, SC; Boston University School of Medicine, Boston, MA; Rheumatology, Tulane University School of Medicine, New Orleans, LA; Rheumatology, The George Washington University, Washington, DC; Division of Rheumatology and Immunology, Department of Medicine, Medical University of South Carolina, Charleston, SC; Rheumatology, MedStar Georgetown University Hospital, Washington, DC; Stanford University School of Medicine, Stanford, CA; Rheumatology and Dermatology, Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL; Rheum Div/Mason F Lord, Johns Hopkins University, Baltimore, MD; Rheumatology, University California, San Francisco, San Francisco, CA; Inflammatory Disease Section, National Human Genome Research Institute, National Institutes of Health, Bethesda, MD

Osteoarthritis – Clinical Aspects I: Pain and Functional Outcomes, Session Time: 4:30PM-6:00PM

ABSTRACT NUMBER: 935, ACR Concurrent Abstract Session

Results from a 52 Week Randomized, Double-Blind, Placebo-Controlled, Phase 2 Study of a Novel, Intra-Articular, Wnt Pathway Inhibitor (SM04690) for the Treatment of Knee Osteoarthritis

Yusuf Yazici1, Timothy E. McAlindon2, Allan Gibofsky3, Nancy E. Lane4, Daniel J. Clauw5, Eddie Armas6, Nebojsa Skrepnik7, Christopher J. Swearingen1, Anita DiFrancesco1, Jeymi Tambiah1 and Marc Hochberg8, Samumed, LLC, San Diego, CA; Division of Rheumatology, Tufts Medical Center, Boston, MA; Rheumatology, Weill Cornell Medicine, and Hospital for Special Surgery, New York, NY; Center for Musculoskeletal Health, University of California at Davis, Hillsborough, CA; Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI; Well Pharma Medical Research, Miami, FL; Tuscon Orthopedics Institute, Tuscon, AZ; Head, Division of Rheumatology & Clinical Immunology; Vice Chair, Department of Medicine, University of Maryland School of Medicine, Baltimore, MD

Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Clinical Aspects and Therapeutics I

Session Time: 4:30PM-6:00PM

ABSTRACT NUMBER: 943, ACR Concurrent Abstract Session

The Course of the Forced Vital Capacity during Treatment for Systemic Sclerosis-Related Interstitial Lung Disease Predicts Long-Term Survival in 2 Independent Cohorts

Elizabeth R. Volkman1, Donald P. Tashkin1, Myung Sim2, Dinesh Khanna2, Michael Roth3, Philip J. Clements3, Daniel E. Furst1, Lynette Keyes-Elstein4, Ashley Pinckney4, Ellen Goldmuntz2, Robert Elashoff5 and Keith Sullivan7, University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA; University of Michigan, Ann Arbor, MI; Medicine, University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA; Rho Federal Systems, Inc., Chapel Hill, NC; NIAID, NIH, Bethesda, MD; University of California, Los Angeles, Los Angeles, CA; Duke University, Durham, NC

ABSTRACT NUMBER: 946, ACR Concurrent Abstract Session

Clinical and Serological Features of Systemic Sclerosis in a Multicenter African American Cohort: Analysis of the Genome Research in African American Scleroderma Patients Clinical Database

Nadia D. Morgan1, Ami A. Shah1, Maureen D. Mayes2, Robyn T. Domsic3, Thomas A. Medsger Jr.4, Virginia D. Steen5, John Varga6, Mary A. Carns7, Paula S. Ramos8, Richard M. Silver9, Elena Schiopu10, Dinesh Khanna10, Vivien Hsu11, Jessica K. Gordon12, Heather Gladue13, Lesley A. Saketko14, Lindsey A. Criswell15, Chris T. Derk16, Marcin A. Trojanowski17, Victoria K. Shamuangmi18, Lorinda Chung19, Antonia Valenzuela20, Reem Jan21, Avram Goldberg22, Elaine F. Remmers23, Daniel L. Kastner23, Fredrick M. Wigley24, Pravitt Gourh25 and Francesco Boin26. Rheumatology, Johns Hopkins University School of Medicine, Baltimore, MD; Rheumatology, University of Texas Health Science Center at Houston, Houston, TX; Medicine - Rheumatology, University of Pittsburgh, Pittsburgh, PA; Division of Medicine/Rheumatology, University of Pittsburgh, Pittsburgh, PA; Division of Rheumatology, Department of Medicine, MedStar Georgetown University Hospital, Washington, DC; Rheumatology and Dermatology, Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL; Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL; Division of Rheumatology and Immunology, Medical University of South Carolina, Charleston, SC; Division of Rheumatology and Immunology, Department of Medicine, Medical University of South Carolina, Charleston, SC; University of Michigan, Ann Arbor, MI; Rheumatology, Robert Wood Johnson University Scleroderma Program, New Brunswick, NJ; Rheumatology, Hospital for Special Surgery, New York, NY; Rheumatology, Arthritis and Osteoporosis Consultants of the Carolinas, Charlotte, NC; Rheumatology, Tulane University School of Medicine, New Orleans, LA; Medicine/Rheumatology, University of California, San Francisco, San Francisco, CA; Rheumatology, University of Pennsylvania, Philadelphia, PA; Boston University School of Medicine,
Role of Syndecans in Cytokine Mediated Inflammation in Rheumatoid Arthritis Synovial Fibroblasts
Solomon Agere¹, Nahid Akhtar¹, David Fox² and Salahuddin Ahmed¹, ¹Department of Pharmaceutical Sciences, Washington State University, College of Pharmacy, Spokane, WA, ²Department of Medicine [Division of Rheumatology], University of Michigan Medical System, Ann Arbor, MI

Synovial Fibroblast CD318 Expression Mediates T Cell Adhesion and Migration in Rheumatoid Arthritis
Ray A. Ohara¹, Stephanie M. Rasmussen¹, W. Alexander Stinson¹, Huadong Cui¹, Yuxuan Du¹, Daniel P. Weber¹, M. Asif Amin¹, Phillip L. Campbell², Nora Singer³, Feng Lin⁴, David A. Fox¹ and Jeffrey H. Ruth⁵, ¹Division of Rheumatology and Clinical Autoimmune Center of Excellence, University of Michigan, Ann Arbor, MI, ²Ann Arbor, MI, ³Division of Rheumatology, MetroHealth Medical Center, Cleveland, OH, Cleveland, OH, ⁴Department of Immunology, Lerner Research Institute, Cleveland Clinic, Cleveland, OH, Cleveland, OH, ⁵Internal Medicine, Division of Rheumatology and Clinical Autoimmune Center of Excellence, University of Michigan, Ann Arbor, MI

Hair Treatments and the Risk of Systemic Lupus Erythematosus: the Michigan Lupus Epidemiology & Surveillance (MILES) Program
Emily C. Somers¹, Christina Mrukowicz², Wendy Marder¹, W. Joseph McCune³, Afton L. Hassett⁴, Suzanna Zick⁵, Siobán Harlow⁶ and Caroline Gordon⁷, ¹Internal Medicine-Rheumatology, University of Michigan, Ann Arbor, MI, ²University of Michigan, Ann Arbor, MI, ³Int Med/ Rheum, University of Michigan, Ann Arbor, MI, ⁴Rheumatology, Emory University, Atlanta, GA, ⁵Department of Family Medicine, University of Michigan, Ann Arbor, MI, ⁶Epidemiology Department- School of Public Health, Obstetrics and Gynecology- Medical School, University of Michigan, Ann Arbor, MI, ⁷School of Immunity and Infection, College of Medical and Dental Sciences, University of Birmingham, Birmingham, United Kingdom

Evaluation of Validated Patient Reported Outcome Measures to Assess Sensitivity to Change in Patients with Systemic Sclerosis and Gastroesophageal Reflux Disease —a Scleroderma Clinical Trials Consortium Collaborative Project
Zsuzsanna McMahan¹, Tracy M. Frech¹, David Lim³, Veronica J. Berrocal⁴, Cosimo Bruni⁵, Marco Matucci-Cerinic⁶.
ABSTRACT NUMBER: 1686

**Topical Nitroglycerine (NTG) Vs Matching Vehicle in Secondary Raynaud Phenomenon (RP) – a Double-Blind Crossover Study of Subjective and Physiologic Responses to Controlled Cold Challenge**

Dinesh Khanna¹, Lorele Mendez², Rajae Namas³, Mary Ellen Csuka⁴, Paul Caldon⁵, Jerry A. Molitor⁶, Alan J. Kivitz⁷, Philip Waller⁸, Lee Shapiro⁹, Sabeen Najam¹⁰, Amber Khan¹¹, Virginia D. Steen¹², Aneureka Chadha¹³ and James R Seibold¹⁴, ¹University of Michigan, Ann Arbor, MI, ²Medical Research Center of Miami, Miami, FL, ³Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, ⁴Medicine, Medical College of Wisconsin, Milwaukee, WI, ⁵Arizona Arthritis & Rheumatism Research PLLC, Phoenix, AZ, ⁶Rheumatic & Autoimmune Diseases, University of Minnesota, Minneapolis, MN, ⁷Altoona Center for Clinical Research, Duncansville, PA, ⁸Accurate Clinical Research Inc, Houston, TX, ⁹Rheumatology, Albany Medical College, Albany, NY, ¹⁰Accurate Clinical Management LLC, Baytown, TX, ¹¹Accurate Clinical Management LLC, Houston, TX, ¹²Division of Rheumatology, Department of Medicine, MedStar Georgetown University Hospital, Washington, DC, ¹³Austin Regional Clinic, Austin, TX, ¹⁴Scleroderma Research Consultants LLC, Litchfield, CT.
ABSTRACT NUMBER: 1704

**Can Durometer Differentiate Limited Versus Diffuse Cutaneous Systemic Sclerosis?**
Vivek Nagaraja¹, Amber Young¹, Veronica J. Berrocal² and Dinesh Khanna², ¹Department of Medicine, University of Michigan Scleroderma Program, Ann Arbor, MI, ²Department of Biostatistics-School of Public Health, University of Michigan, Ann Arbor, MI

ABSTRACT NUMBER: 1705

**Inhibition of EZH2 Stops Fibrosis and Improves Angiogenesis in Scleroderma**
Pei-Suen Tsou¹, Phillip L. Campbell², M. Asif Amin³, Patrick Coit¹, David Fox¹, Dinesh Khanna⁵ and Amr H Sawalha¹, ¹Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Rheumatology, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, ³Division of Rheumatology and Clinical Autoimmune Center of Excellence, University of Michigan, Ann Arbor, MI, Ann Arbor, MI, ⁴Department of Medicine [Division of Rheumatology], University of Michigan Medical System, Ann Arbor, MI, ⁵University of Michigan, Ann Arbor, MI

ABSTRACT NUMBER: 1709

**Classical Monocytes in the Pathogenesis of Early Diffuse Cutaneous Systemic Sclerosis**
Julia Dunn¹, Salina Dominguez¹, Philip J. Homan¹, Carla Cuda¹, Dinesh Khanna¹, Shervin Assassi¹, Tracy M. Frech⁴, Harris Perlman⁵, Deborah R. Winter¹ and Monique Hinchcliff⁶, ¹Department of Medicine Division of Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, ²University of Michigan, Ann Arbor, MI, ³University of Texas McGovern Medical School, Houston, TX, ⁴Division of Rheumatology, University of Utah, Salt Lake City, UT, ⁵Department of Medicine, Division of Rheumatology, Northwestern University Feinberg School of Medicine, Northwestern University Feinberg School of Medicine, Chicago, IL, ⁶Northwestern University Institute for Public Health and Medicine, Chicago, IL

**Vasculitis Poster II: ANCA-Associated Vasculitis, Session Time: 9:00 AM-11:00AM**

ABSTRACT NUMBER: 1783

**The Value of a Combination of Serum Proteins to Identify Response to Induction Therapy Among Patients with ANCA-Associated Vasculitis**
Sadao Jinno¹,², S. Reza Jafarzadeh³, Roscoe Warner⁴, Ulrich Specks⁵, John H. Stone⁶, Gary S. Hoffman⁷, Cees G.M. Kallenberg⁸, Carol A. Langford⁹, Philip Seo¹⁰, Robert F. Spiera¹¹, E. William St Clair¹², Kent Johnson¹³, Peter A. Merkel¹⁴ and Paul A. Monach², ¹Rheumatology, Boston University School of Medicine, Boston, MA, ²Boston University School of Medicine, Boston, MA, ³Clinical Epidemiology Research and Training Unit, Boston University School of Medicine, Boston, MA, ⁴University of Michigan Medical School, Ann Arbor, MI, ⁵Mayo Clinic College of Medicine, Rochester, MN, ⁶Massachusetts General Hospital Rheumatology Unit, Harvard Medical School, Boston, MA, ⁷Rheumatology, Cleveland Clinic, Cleveland, OH, ⁸Rheumatology and Clinical Immunology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands, ⁹Rheumatic and Immunologic Diseases, Cleveland Clinic, Cleveland, OH, ¹⁰Medicine, Johns Hopkins University, Baltimore, MD, ¹¹Rheumatology, Hospital for Special Surgery, New York, NY, ¹²Rheumatology, Duke University Medical Center, Durham, NC, ¹³University of Michigan Medical School, Ann Arbor, MI, ¹⁴Division of Rheumatology, University of Pennsylvania; Perelman School of Medicine, Philadelphia, PA

**Vasculitis II: Biomarkers and Disease Activity, Session Time: 9:00 AM-11:00AM**

ABSTRACT NUMBER: 1844, **ACR Concurrent Abstract Session**

**Circulating Cytokine Profiles Reflect ANCA Specificity in Patients with ANCA-Associated Vasculitis**
Alvise Berti¹, Roscoe Warner², Kent Johnson³, Divi Cornec⁴, Darrell Schroder⁵, Brian Kabat⁵, Peter A. Merkel⁶, Carol A. Langford⁷, Gary S. Hoffman⁸, Cees G.M. Kallenberg⁹, Philip Seo¹⁰, Robert F. Spiera¹¹, Eugene St. Clair¹², John H. Stone¹³, Ulrich Specks¹⁴ and Paul A. Monach¹⁵, ¹Division of Pulmonary and Critical Care Medicine, Mayo Clinic, Rochester, MN, ²University of Michigan Medical School, Ann Arbor, MI, ³University of Michigan Medical School, Ann Arbor, MI, ⁴Pulmonary and Critical Care Medicine, Mayo Clinic College of Medicine and Science, Rochester, MN, ⁵Mayo Clinic, Rochester, MN, ⁶Division of Rheumatology, University of Pennsylvania; Perelman School of Medicine, Philadelphia, PA, ⁷Rheumatic and Immunologic Diseases, Cleveland Clinic, Cleveland, OH, ⁸Rheumatology, Cleveland Clinic, Cleveland, OH, ⁹Rheumatology and Clinical Immunology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands, ¹⁰Medicine, Johns Hopkins University, Baltimore, MD, ¹¹Rheumatology, Hospital for Special Surgery, New York, NY, ¹²Department of Medicine, Duke University Medical Center, Durham, NC, ¹³Massachusetts General Hospital Rheumatology Unit, Harvard Medical School, Boston, MA, ¹⁴Mayo Clinic College of Medicine, Rochester, MN, ¹⁵Boston University School of Medicine, Boston, MA

ABSTRACT NUMBER: 1849, **ACR Concurrent Abstract Session**

**Urinary Epidermal Growth Factor and Monocyte Chemoattractant Protein-1 As Biomarkers of**

Renal Involvement in ANCA-Associated Vasculitis
Catherine E. Najem1, Wenjun Ju2, Viji Nair2, David Cuthbertson3, Rennie L. Rhee1, Laura Mariani4, Simon Carette5, Nader A. Khalidi6, Curry L. Koenig7, Carol A. Langford8, Carol A. McAlear9, Paul A. Monach10, Larry W. Moreland11, Christian Pagnoux3, Philip Seo12, Ulrich Specks13, Antoine G. Sreih1, Steven R. Ytterberg14, Jeffrey Krischer15, Matthias Kretzler16 and Peter A. Merkel16, 1Rheumatology, University of Pennsylvania, Philadelphia, PA, 2University of Michigan, Ann Arbor, MI, 3Biostatistics and Informatics, Department of Pediatrics, University of South Florida, Tampa, FL, 4Division of Nephrology, University of Michigan, Ann Arbor, MI, 5Division of Rheumatology, Mount Sinai Hospital, University of Toronto, Toronto, ON, Canada, 6Rheumatology, McMaster University, Hamilton, ON, Canada, 7Rheumatology, University of Utah, Salt Lake City, UT, 8Rheumatic and Immunologic Diseases, Cleveland Clinic, Cleveland, OH, 9University of Pennsylvania, Philadelphia, PA, 10Boston University School of Medicine, Boston, MA, 11Rheumatology & Clinical Immunology, University of Pittsburgh, Pittsburgh, PA, 12Medicine, Johns Hopkins University, Baltimore, MD, 13Mayo Clinic College of Medicine, Rochester, MN, 14Rheumatology, Mayo Clinic, Rochester, MN, 15University of South Florida, Tampa, FL, 16Biostatistics, Epidemiology, and Informatics, University of Pennsylvania, Philadelphia, PA

ACR/ARHP Combined: Orthopedics and Rehabilitation Science, Session Time: 3:45PM

ABSTRACT NUMBER: 1855, ACR Concurrent Abstract Session
Feasibility and Preliminary Effects of a Novel Rehabilitation Strategy to Improve Hand and Arm Function in Systemic Sclerosis
Susan L. Murphy1, Mary Barber2, Kristen Homer3, Carole Dodge2 and Dinesh Khanna4, 1Physial Medicine & Rehabilitation, University of Michigan, Ann Arbor, MI, 2Physical Medicine and Rehabilitation, University of Michigan, Ann Arbor, MI, 3Department of Internal Medicine, Rheumatology Division, University of Michigan, Ann Arbor, MI, 4University of Michigan, Ann Arbor, MI

ARHP Education/Community Programs, Session Time: 3:45

ABSTRACT NUMBER: 1859, ACR Concurrent Abstract Session
Meeting the Needs of Rheumatology Health Professional Learners: the Success of the American College of Rheumatology (ACR) and Association of Rheumatology Health Professionals (ARHP) Online Educational Products
Benjamin J Smith1, Katelyn Graves2, Thomas Morgan2, Debra Bancroft Rizzo3, Geri Neuberger1, Kori Dewing5, Atul A. Deodhar4 and Ramona Hilliard5, 1School of Physician Assistant Practice, Florida State University College of Medicine School of Physician Assistant Practice, Tallahassee, FL, 2Florida State University College of Medicine School of Physician Assistant Practice, Tallahassee, FL, 3Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, 4School of Nursing MS 5PhD, Univ of Kansas Medical Ctr, Kansas City, KS, 5Rheumatology, Virginia Mason Medical Center, Seattle, WA, 6Oregon Health & Science University, Portland, OR, 7ARHP, American College of Rheumatology, Atlanta, GA

Fibromyalgia, Soft Tissue Disorders, Regional and Specific Clinical Pain Syndromes
Session Time: 4:30PM-6:00PM

ABSTRACT NUMBER: 1870, ACR Concurrent Abstract Session
Validation of an Electronic Version of the Michigan Body Map
Chad M. Brummett1, David Kohns2, Rishi Bakshi3, Jenna Goesling4, Stephanie Moser4, Jennifer Pierce4, David Williams5, Daniel J. Clauw5, Afton L. Hassett1 and Erin Spencer2, 1Anesthesiology, University of Michigan, Ann Arbor, MI, 2University of Michigan, Ann Arbor, MI, 3Physical Medicine Rehabilitation, University of Michigan, Ann Arbor, MI, 4Department of Anesthesiology, University of Michigan, Ann Arbor, MI, 5Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI

ABSTRACT NUMBER: 1871, ACR Concurrent Abstract Session
Identifying Pain Sites Highly Associated with the Fibromyalgia (FM) Phenotype
Louis Lu1, Stephanie Moser2, Chad M. Brummett2 and Daniel J. Clauw3, 1Anesthesiology & Perioperative Care, UC Irvine, Orange, CA, 2Anesthesiology, University of Michigan, Ann Arbor, MI, 3Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI

Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Pathogenesis, Animal Models and Genetics I
Session Time: 4:30PM-6:00PM

ABSTRACT NUMBER: 1922, ACR Concurrent Abstract Session
Cell Type Specific Gene Expression Analysis of Early Systemic Sclerosis Skin Shows a Prominent Activation Pattern of Innate and Adaptive Immune System in the Prospective Registry for Early
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<th>Title</th>
<th>Session Time</th>
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<td><strong>Fibromyalgia 2017: Update on Management</strong></td>
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<td><strong>Metabolic and Crystal Arthropathies Poster II</strong>, <strong>Session Time:</strong></td>
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<td><strong>ABSTRACT NUMBER: 2070</strong> Evidence-Based Development of Criteria for</td>
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<td>Complete Response in Patients with Chronic Refractory Gout</td>
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<td>Naomi Schlesinger², Puja Khanna³, Anthony Yeo³ and Peter E. Lipsky⁴</td>
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<td>Medicine, Rutgers-Robert Wood Johnson Medical School, New Brunswick,</td>
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<td><strong>Miscellaneous Rheumatic and Inflammatory Diseases Poster II</strong>, <strong>Session Time:</strong></td>
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<td><strong>ABSTRACT NUMBER: 2095</strong> Traditional Disease Modifying Anti-Rheumatic</td>
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<td>Drugs (tDMARDs), Hydroxychloroquine (HCQ) and/or Sulfasalazine (SSZ)</td>
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<td>Are Rapidly Effective in Immune Checkpoint Inhibitors-Induced</td>
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<td>Inflammatory Arthritis</td>
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<td>Jessie Alperin¹, Jeffrey Sarazin², Leslie Fecher³, Christopher Lao³,</td>
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<td>Seetha Monrad⁴, David Fox¹ and Elena Schiopu⁵</td>
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<td><strong>Patient Outcomes, Preferences, and Attitudes Poster III</strong>, <strong>Session Time:</strong></td>
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<td><strong>ABSTRACT NUMBER: 2266</strong> Patient Knowledge, Attitudes, and Beliefs</td>
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<td>Regarding Biologic Therapies in Ankylosing Spondylitis (AS):</td>
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<td>Insights from a Large-Scale Analysis of Social Media Platforms</td>
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<td>Deeba Minhas¹, Benjamin Noah², Eldin Dzubur², Christopher Almario³,</td>
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<td>Mariko Ishimori¹, Corey Arnold⁴, Amber Howard², Carine Khalil²,</td>
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<td>Alma Jusufagic², Michelle Chen², Jina Park⁵, Michael Weisman¹ and</td>
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<td>Brennan Spiegel¹, ¹Cedars-Sinai Medical Center Division of Rheumatology,</td>
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<td>⁴Medical Imaging Informatics, Department of Radiology, University</td>
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<td>of California Los Angeles, Los Angeles, CA, ⁵Novartis Pharmaceuticals</td>
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<td><strong>Systemic Lupus Erythematosus – Animal Models Poster</strong>, <strong>Session Time:</strong></td>
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ABSTRACT NUMBER: 2564
Inhibition of Neutrophil Elastase Protects Against Glomerulonephritis and Thrombosis in a Mouse Model of Lupus
Gautam Sule1, Levi F. Mazza1, Nayef M. Kazzaz1, Srilakshmi Yalavarthi1, He Meng1 and Jason S. Knight1. 1University of Michigan, Ann Arbor, MI

Systemic Lupus Erythematosus – Human Etiology and Pathogenesis Poster I,
Session Time: 9:00AM-11:00AM

ABSTRACT NUMBER: 2636
EZH2 Modulates the DNA Methylome and Controls T Cell Adhesion through Junctional Adhesion Molecule-A in Lupus Patients
Pei-Suen Tsou1, Patrick Coit1, Nathan Kilian2 and Amr H Sawalha1. 1Division of Rheumatology, University of Michigan, Ann Arbor, MI, 2Rheumatology, University of Michigan, Ann Arbor, MI

ABSTRACT NUMBER: 2659
Deepak Rao1, Celine C. Berthier2, Arnon Arazi3, Anne Davidson4, Yanyan Liu5, Edward Browne3, Thomas Eisenhaure3, Adam Chicoine6, David Lieb7, Dawn Smilek7, Patti Tosta8, James Lederer8, Michael Brenner9, David Hildeman9, E. Steve Woodle10, David Wofsy11, Jennifer H. Anolik11, Matthias Kretzler12, Nir Hacohen14 and Betty Diamond15. 1Division of Rheumatology, Immunology, and Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 2Nephrology, Division of Nephrology, University of Michigan Medical Center, Ann Arbor, MI, 3Broad Institute, Cambridge, MA, 4Autoimmunity and Musculoskeletal Diseases, Feinstein Inst for Med Rsch, Manhasset, NY, 5Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 6Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, 7Immune Tolerance Network, San Francisco, CA, 8Department of Surgery, Brigham and Women's Hospital and Harvard Medical School, Boston, MA, 9University of Cincinnati, Cincinnati, OH, 10University of Cincinnati College of Medicine, Cincinnati, OH, 11Rheumatology, UCSF, San Francisco, CA, 12Medicine- Allergy, Immunology and Rheumatology, University of Rochester Medical Center, Rochester, NY, 13Internal Medicine, Division of Nephrology, University of Michigan, Ann Arbor, MI, 14Harvard Medical School, Boston, MA, 15Autoimmune and Musculoskeletal Diseases, The Feinstein Institute for Medical Research, Manhasset, NY

Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Clinical Aspects and Therapeutics Poster III,
Session Time: 9:00AM-11:00AM

ABSTRACT NUMBER: 2665
Mortality in an Early Diffuse Cutaneous Systemic Sclerosis Cohort—Data from the Prospective Registry for Early Systemic Sclerosis
Tracy M. Frech1, Shervin Assassi2, Elana J. Bernstein3, Flavia V. Castelino4, Robyn T. Domsic5, Jessica K. Gordon6, Faye Hant7, Monique Hinchcliffe8, Bernie LaSalle9, Victoria K. Shamuugam10, Virginia D. Steen11 and Dinesh Khanna12. 1Division of Rheumatology, University of Utah, Salt Lake City, UT, 2University of Texas McGovern Medical School, Houston, TX, 3Department of Medicine, Division of Rheumatology, Columbia University, New York, NY, 4Rheumatology, Allergy, Immunology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 5Medicine - Rheumatology, University of Pittsburgh, Pittsburgh, PA, 6Rheumatology, Hospital for Special Surgery, New York, NY, 7Medicine/Rheumatology & Immunology, Medical University of South Carolina, Charleston, SC, 8Department of Medicine Division of Rheumatology, Northwestern University Feinberg School of Medicine, Chicago, IL, 9University of Utah, Salt Lake City, UT, 10Rheumatology, The George Washington University, Washington, DC, 11Division of Rheumatology, Department of Medicine, MedStar Georgetown University Hospital, Washington, DC, 12University of Michigan, Ann Arbor, MI

ABSTRACT NUMBER: 2683
Factors Associated with Disease Progression in Early-Diagnosed Pulmonary Arterial Hypertension Associated with Systemic Sclerosis
Carina Mhiabi1, Milos Antic2, Rucsandra Dobrota3, Diana Bonderman4, Harbajan Chadha-Boreham5, J. Gerry Coghlan6, Christopher Denton7, Martin Doelberg7, Ekkehard Gruenig8, Dinesh Khanna9, Vallerie McLaughlin10, Ulf Müller-Ladner11, Janet E. Pope12, Daniel M Rosenberg5, James R Seibold13, Madelon C Vonk14 and Oliver Distler15. 1Internal Medicine and Rheumatology Dept., Cantacuzino Clinical Hospital, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania, 2University Hospital Zurich, Zurich, Switzerland, 3Department of Rheumatology, Center of Experimental Rheumatology, University Hospital Zurich, Zurich, Switzerland, 4Department of Internal Medicine II, Division of Cardiology, Medical University of Vienna, Vienna, Austria, 5Actelion Pharmaceuticals Ltd., Allschwil, Switzerland, 6National Pulmonary Hypertension Service, Royal Free Hospital, London, United Kingdom, 7Department of
**ABSTRACT NUMBER: 2693**  
**Relationships between Levels of Patient Activation, Self-Efficacy, and Demographic Variables in Systemic Sclerosis**  
Janet L. Poole¹, Veronica J. Berrocal², Jennifer Serrano³, Erica Bush³ and Dinesh Khanna³, ¹Health Sciences Ctr OT Program, ¹University of New Mexico, Albuquerque, NM, ²Div of Rheumatology, University of Michigan, Ann Arbor, MI, ³University of Michigan, Ann Arbor, MI

**ABSTRACT NUMBER: 2694**  
Janet L. Poole¹, Veronica J. Berrocal², Jennifer Serrano³, Erica Bush³ and Dinesh Khanna³, ¹Health Sciences Ctr OT Program, ¹University of New Mexico, Albuquerque, NM, ²Div of Rheumatology, University of Michigan, Ann Arbor, MI, ³University of Michigan, Ann Arbor, MI

**T Cell Biology and Targets in Autoimmune Disease Poster II, Session Time: 9:00AM-11:00AM**

**ABSTRACT NUMBER: 2713**  
**CD318 Is a New Ligand for CD6**  
Gospel Enyindah-Asonye¹, Yan Li¹, Danislav Spassov², Katie Hebron³, Andries Zijlstra⁴, Mark Moasser², Benlian Wang⁵, Nora Singer⁶, David A. Fox⁷ and Feng Lin⁸, ¹Department of Immunology, Lerner Research Institute of the Cleveland Clinic, Cleveland, OH, ²Department of Medicine, University of California, San Francisco, San Francisco, CA, ³Department of Pathology, Microbiology, and Immunology, Vanderbilt University, Nashville, TN, ⁴Department of Pathology, Microbiology and Immunology, Vanderbilt University, Nashville, TN, ⁵Center for Proteomics and Bioinformatics, Case Western Reserve University, Cleveland, OH, ⁶Division of Rheumatology, MetroHealth Medical Center, Cleveland, OH, ⁷Rheumatology/Internal Medicine, University of Michigan Medical Center, Ann Arbor, MI, ⁸Department of Immunology, Cleveland Clinic Foundation, Cleveland, OH

**Vasculitis Poster III: Other Vasculitis Syndromes, Session Time: 9:00AM-11:00AM**

**ABSTRACT NUMBER: 2720**  
**Behcet’s Disease in Southeastern Michigan: A Single Center Comparative Study**  
Nathan Kilian¹ and Amr H Sawalha², ¹Rheumatology, University of Michigan, Ann Arbor, MI, ²Division of Rheumatology, University of Michigan, Ann Arbor, MI

**Plenary Session III, Session Time: 11:00AM-12:30AM**

**ABSTRACT NUMBER: 2753, Concurrent Abstract Session**  
**Brain Functional Connectivity Features of Pain Centralisation Relate to Degree of ‘Fibromyalgianess’ in Rheumatoid Arthritis**  
Neil Basu¹, Chelsea Cummiford², Eric Ichesco², Tony Larkin², Richard E. Harris², Alison Murray³, Gordon Waiter³ and Daniel J. Clauw⁴, ¹Institute of Applied Health Sciences, University of Aberdeen, Aberdeen, United Kingdom, ²Chronic Pain and Fatigue Research Center, University of Michigan, Ann Arbor, MI, ³Aberdeen Brain Imaging Center, University of Aberdeen, Aberdeen, United Kingdom, ⁴Aberdeen Brain Imaging Centre, University of Aberdeen, Aberdeen, United Kingdom, ⁵Anesthesiology, University of Michigan, Ann Arbor, MI

**Pulmonary Hypertension in the Rheumatic Diseases**  
Dinesh Khanna  
12:45PM-2:15
### Antiphospholipid Syndrome, **Session Time:** 3:00PM

**ABSTRACT NUMBER:** 276, **Concurrent Abstract Session**

**Adenosine Receptor Agonism Protects Against Antiphospholipid Antibody-Mediated Netosis and Venous Thrombosis**

Ramadan A. Ali\(^1\), He Meng\(^1\), Srilakshmi Yalavarthi\(^1\), Yogendra Kanthi\(^1\) and Jason S. Knight\(^1\), \(^1\)University of Michigan, Ann Arbor, MI

### Innate Immunity and Rheumatic Disease, **Session Time:** 3:30PM-4:00PM

**ABSTRACT NUMBER:** 277, **Concurrent Abstract Session**

**Plasmacytoid Dendritic Cells in Systemic Fibrosis: Pathogenic Role in Bleomycin-Induced Fibrosis Model and Correlation with Disease in Patients with Systemic Sclerosis**

Suzanne Kafaja\(^1\), Isela Valera\(^2\), Anagha Divekar\(^3\), Rajan Saggar\(^4\), Dinesh Khanna\(^5\), Daniel E. Furst\(^6\) and Ram R. Singh\(^7\), \(^1\)Department of Internal Medicine, University of California Los Angeles, David Geffen School of Medicine, Division of Rheumatology, Los Angeles, CA, \(^2\)Autoimmunity and Tolerance Laboratory, Division of Rheumatology, Department of Medicine, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, CA, \(^3\)BIOLEGEND, San Diego, CA, \(^4\)Medicine, University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, \(^5\)University of Michigan, Ann Arbor, MI, \(^6\)David Geffen School of Medicine at UCLA, Los Angeles, CA, \(^7\)Autoimmunity and Tolerance Laboratory, Department of Medicine/Rheumatology, David Geffen School of Medicine at University of California Los Angeles, Los Angeles, CA

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### When Osteoarthritis Meets Fibromyalgia

Dan Clauw

9:00 AM-9:30AM

**Health Services Research: Methods & Technology in Care & Research, ** **Session Time:** 9:00AM-10:30AM

**ABSTRACT NUMBER:** 2892, **Concurrent Abstract Session**

**Persistently Frequent Emergency Department (ED) Utilization Among Systemic Lupus Erythematosus (SLE) Patients**

Jiha Lee\(^1\), Lisa Gale Suter\(^1,2\) and Liana Fraenkel\(^1,3\), \(^1\)Rheumatology, Rheumatology, Yale University School of Medicine, New Haven, CT, New Haven, CT, \(^2\)Medicine, Rheumatol., TAC SS41, Rheumatology, VA Connecticut Healthcare System, West Haven, CT, New Haven, CT, \(^3\)Medicine, Section of Rheumatology, Rheumatology, VA Connecticut Healthcare System, West Haven, CT, New Haven, CT

### Rheumatoid Arthritis – Clinical Aspects VI: Comorbidities of Rheumatoid Arthritis

**Session Time:** 9:00AM-10:30AM

**ABSTRACT NUMBER:** 2912, **Concurrent Abstract Session**

**The Neural Correlates of Inflammation in RA: A Multi-Modal MRI Study**

Andrew Schrepf\(^1\), Chelsea Cummiford\(^1\), Eric Ichesco\(^1\), Tony Larkin\(^1\), Steven E. Harte\(^1\), Richard E. Harris\(^1\), Alison Murray\(^2\), Gordon Waiter\(^3\), Daniel J. Clauw\(^4\) and Neil Basu\(^5\), \(^1\)Chronic Pain and Fatigue Research Center, University of Michigan, Ann Arbor, MI, \(^2\)Aberdeen Brain Imaging Center, University of Aberdeen, Aberdeen, United Kingdom, \(^3\)Aberdeen Brain Imaging Centre, University of Aberdeen, Aberdeen, United Kingdom, \(^4\)Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI, \(^5\)Institute of Applied Health Sciences, University of Aberdeen, Aberdeen, United Kingdom

### Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Pathogenesis, Animal Models and Genetics II, **Session Time:** 9:00AM-10:30AM

**ABSTRACT NUMBER:** 2926, **Concurrent Abstract Session**

**Fucosyltransferase-1 Mediates Macrophage Driven Myofibroblast Differentiation and TGF-β Signaling in Systemic Sclerosis and Bleomycin-Induced Fibrosis**
### ABSTRACT NUMBER: 2930, Concurrent Abstract Session

**Transforming Growth Factor Beta 3 (TGFβ3) – a Novel Systemic Sclerosis Susceptibility Locus Involved in Fibrosis and Th17 Cell Development Identified By Genome-Wide Association Study in African Americans from the Genomic Research in African American Scleroderma Patients Consortium**

Pravitt Gour1, Elaine F. Remmers2, Ansunman Satpathy3, Steven Boyden4, Nadia D. Morgan5, Ami A. Shah6, Adebowale Adeyemo5, Amy Bentley7, Mary A. Carns7, Settara C Chandrasekharappa2, Lorinda Chung8, Lindsey A. Criswell9, Chris T. Derk10, Robyn T. Domsic11, Ayo Doumatey12, Heather Gladue12, Avram Goldberg13, Jessica K. Gordon14, Vivien Hsu15, Reem Jan16, **Dinesh Khanna**17, Maureen D. Mayes18, Thomas A. Medsger Jr.19, Maxwell Mumbach3, Paula S. Ramos20, Marcin Trojanowski21, Lesley Ann Saketkoo22, Elena Schiopu23, Victoria K. Shannugam23, Daniel Shriner2, Richard M. Silver23, Virginia D. Steen25, Antonia Valenzuela26, John Varga27, Howard Chang2, Charles Rotimi2, Fredrick M. Wigley28, Francesco Boin29 and Daniel L. Kastner30, 1NIAMS-Rheumatology, National Institutes of Health (NIH), National Institute of Arthritis and Musculoskeletal and Skin Diseases, Bethesda, MD, 1National Institutes of Health (NIH), National Human Genome Research Institute, Bethesda, MD, 1Stanford University, Stanford, CA, 1National Institutes of Health (NIH), National Institute on Deafness and Other Communication Disorders, Bethesda, MD, 2Rheumatology, Johns Hopkins University School of Medicine, Baltimore, MD, 1Division of Rheumatology, Johns Hopkins University, Baltimore, MD, 1Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL, 2Rheumatology, Stanford University Medical Center, Palo Alto, CA, 1Medicine/Rheumatology, University of California, San Francisco, San Francisco, CA, 1*Rheumatology, University of Pennsylvania, Philadelphia, PA, 1Medicine - Rheumatology, University of Pittsburgh, Pittsburgh, PA, 1Rheumatology, Arthritis and Osteoporosis Consultants of the Carolinas, Charlotte, NC, 1NYU Langone Medical Center, New York, NY, 1*Rheumatology, Hospital for Special Surgery, New York, NY, 1Rheumatology, Robert Wood Johnson University Scleroderma Program, New Brunswick, NJ, 1Medicine, Rheumatology, University of Chicago, Chicago, IL, 1University of Michigan, Ann Arbor, MI, 1University of Texas McGovern Medical School, Houston, TX, 1Medicine/Rheumatology, Univ of Pittsburgh, Pittsburgh, PA, 1Department of Public Health Sciences, Medical Department of Medicine, University of South Carolina, Charleston, SC, 1Boston University, Boston, MA, 1Tulane, New Orleans, LA, 1Rheumatology, The George Washington University, Washington, DC, 1Division of Rheumatology and Immunology, Department of Medicine, University of South Carolina, Charleston, SC, 1Rheumatology, MedStar Georgetown University Hospital, Washington, DC, 1Stanford University School of Medicine, Stanford, CA, 1Rheumatology and Dermatology, Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL, 1Rheum Div/Mason F Lord, Johns Hopkins University, Baltimore, MD, 1Rheumatology, University California, San Francisco, San Francisco, CA, 1Inflammatory Disease Section, National Human Genome Research Institute, National Institutes of Health, Bethesda, MD

### Systemic Sclerosis, Fibrosing Syndromes and Raynaud’s – Clinical Aspects and Therapeutics III

**Session Time:** 11:00AM-12:30AM

### ABSTRACT NUMBER: 2981, Concurrent Abstract Session

**Evaluation of American College of Rheumatology Provisional Composite Response Index in Systemic Sclerosis (CRISS) in the Fassinate Trial**

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### ABSTRACT NUMBER: 2983, Concurrent Abstract Session

**Predictors for Disease Worsening Defined by Organ Failure in Diffuse Systemic Sclerosis: A European Scleroderma Trials and Research (EUSTAR) Analysis**

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Omega Polyunsaturated Fatty Acids and Systemic Lupus Erythematosus (SLE): the Michigan Lupus Epidemiology & Surveillance (MILES) Program
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