The past, present and future of our Division of Rheumatology – links that we treasure.

In the past year we have lost two of our Michigan rheumatology faculty colleagues, Bill Jourdian and Joe Weiss, and a graduate of our fellowship program, Wendy Eider. Bill Jourdian was a direct link to the heyday of the Rackham Arthritis Research Unit in the 1960’s, when it was directed by Saul Roseman and emphasized biochemical approaches to understanding connective tissue biology. Bill’s subsequent career as a “rheumatologic biochemist” featured the discovery of the phosphomannosyl receptor, and the development of a 3-dimensional bead-based system for culturing chondrocytes. Bill was also a noted teacher, mentor, raconteur and fly fisherman. Joe Weiss trained in the Rackham Unit and went on to a distinguished career as a clinical rheumatologist, for many years on the Michigan faculty and for several decades in solo practice in Livonia. As a community practitioner, Joe attended and contributed to our Division’s rheumatology grand rounds almost every week, often accompanied by a student or resident who was rotating through his office. Joe was an advocate like no other for the field of rheumatology and for his rheumatology colleagues. His legacy carries forward into the future with a fund designated from his estate to support training of rheumatology fellows. Meanwhile, the legacies of Giles Bole and one of his fellows—Dorothy Mulkey—have been merged to create a new endowed chair in our Division of Rheumatology, which will be used in perpetuity to support a member of our faculty. This chair has tentatively been designated for a new Chief of the Ann Arbor VA Section of Rheumatology—a recruitment that is currently underway. Special thanks to our alumni who have contributed to the Giles Bole chair, now the Bole/Mulkey Chair.

Our present and our future are also embodied in our new rheumatology fellows – currently our training program includes 4 first year and 4 second year fellows, along with 2 lecturers who have just completed fellowship and are acquiring additional research training. The academic diversity and strength of rheumatology at Michigan is brilliantly reflected in the research presentations and other roles of our faculty, trainees and staff at the 2016 ACR meeting. The near-90 entries from Michigan on this year’s program, which you can find elsewhere in this newsletter, are the product of our laboratory research, clinical research, educational innovation, and ACR leadership roles. This is a record number of Michigan items on the ACR program, and our faculty, trainees and staff deserve congratulations for the hard work and creativity that has led to each of these presentations. I hope that many of you will be able to attend some of these talks and poster presentations, so that you can see in detail what we are up to! And I hope to see all of you at our Robinson Alumni Society reception on Saturday evening after the opening session of the ACR meeting.

David A. Fox, M.D.
Chief, Division of Rheumatology
Advocates for Arthritis 2016 Recap

On September 13, 2016, nearly 100 ACR advocates representing 31 states and the District of Columbia educated 116 Capitol Hill offices on the policy issues affecting rheumatology. This annual event brings together rheumatologists, health professionals, and patients to advocate on behalf of the rheumatology community.

The core issues on which the advocates focused were 1) advocating to stop or dramatically change the Centers for Medicare and Medicaid Services (CMS) Medicare Part B Drug Reimbursement Project, 2) support of funding research that benefits rheumatology professionals and patients, and 3) the repeal of Medicare “therapy caps.”

UPDATE 20 Sept 2016, from the office of Senator Gary Peters: “Thanks so much for your note Lisa [Gigliotti]. I’m happy to let you know that Senator Gary Peters has agreed to cosponsor S. 539!” (S. 539 is the Medicare Access Rehabilitation Services Act. Passing this Act will repeal the cap set on outpatient rehabilitation services currently in place.)

Advocates for Arthritis is an annual event that brings together rheumatology professionals and patients to advocate on behalf of the rheumatology community. During the event, attendees will hear from top representatives from key legislative and regulatory agencies and meet with their members of Congress to discuss current issues affecting the rheumatology community. Participating in Advocates for Arthritis is a great way for ACR and ARHP members to engage in the legislative process and increase awareness of rheumatology on Capitol Hill.
**Gifts & Endowments**

**A Gift to Prepare the Next Generation of Leaders in Rheumatology**

Joseph J. Weiss MD, MACP was educated at the University of Michigan and went on to study at the medical school. Following his internal medicine residency and a rheumatology fellowship, Dr. Weiss became U-M faculty from 1971-1981 in the Department of Internal Medicine. Dr. Weiss and his colleagues in training, practice and teaching — Ivan Duff MD and George Thompson MD — shared a commitment to cultivating rheumatology fellows to excel in their field, and become knowledgeable physicians, prepared to treat patients with expertise and compassion.

Dr. Weiss recognized the value of his Michigan training, as well as the constant evolution of medicine, research and technology. To meet the challenges of today and the future, he felt it was critical to continue the training of clinicians, teachers and scientists to support their contributions to research and clinical care and to stimulate the interest of young physicians to enter into the practice of rheumatology and the investigation of rheumatic diseases. This is why he decided early on that he wanted to leave a legacy that would provide an opportunity for those committed to a career in rheumatology.

Long before his passing in October 2015, Dr. Weiss allocated $300,000 of his estate to create a permanent fund. **The Ivan F. Duff—George Thompson—Joseph J. Weiss Research and Training Endowment** honors his respect for his colleagues and the enthusiasm of these three physicians. The fund will support the advancement of the field of rheumatology through the instruction and mentorship of the next generation and/or support the pursuit of medical or scientific research in the area of rheumatic diseases.

**Dryer Foundation Aims to Accelerate Arthritis Research Through Support of Early Career Faculty**

Ellen K. Dryer faced the challenges of arthritis late in her life. It was one of several health issues she and her husband overcame as they accomplished their goals and acted as advocates for others. The Detroit couple passed away within months of each other in 2001, creating the Edward T. and Ellen K. Dryer Charitable Foundation to continue to advance their values and the causes they cared about.

Today the Foundation is stewarded by trustees Lisa M. and Jon B. Gandelot and Judith L. and Joseph A. Drobot, Jr. After years of stalwart support for arthritis research at the University of Michigan, the trustees recently voted to establish the **Edward T. and Ellen K. Dryer Early Career Professorship in Rheumatology**.

“We are excited about this opportunity to make a long-term impact on research that will benefit people with arthritis and other diseases,” says Jon Gandelot, Foundation trustee. “We have been impressed with the progress that has been made and have enjoyed meeting the dedicated faculty at U-M who are pushing this area of science forward.”

The Division of Rheumatology is grateful for the Foundation’s foresight and commitment to progress, says David Fox MD, Division Chief and Professor of Internal Medicine. “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.”

---

**To learn more, please contact Lori Hirshman, Associate Director of Development, Department of Internal Medicine at: 734-763-6080 or email hirshmal@umich.edu.**
Dryer Foundation, continued from previous page

The Edward T. and Ellen K. Dryer Early Career Professorship in Rheumatology will exist at U-M in perpetuity and will be awarded to junior faculty members for five-year terms. Such support can solidify the ability of a new assistant professor to dedicate their work to a particular disease or area of study, Dr. Fox says.

Ellen Dryer was an advertising pioneer who served as W.B. Doner & Company's first female media director, while Edward, who was struck by blindness as an international banking executive, made a living as an investor. They would have been pleased to support arthritis research in this way, says Jon Gandelot, a Foundation trustee and founder and senior member of Gandelot Hartmann, a law firm specializing in estate planning and trust administration. Lisa Gandelot is director of special events and projects at the firm.

The Giles G. Bole MD and Dorothy Mulkey MD Research Professorship in Rheumatology: A Legacy of Enduring Leadership

Often, when we develop a passion for something—a hobby, a cause, a career—it is in part because of our experience with someone who has encouraged us and added valuable dimension to our pursuit. In 1972, it was Giles Bole MD who championed an early career rheumatology fellow, and was the catalyst for her future in health care.

Dr. Bole retired as dean of the University of Michigan Medical School in 1996, after serving as a highly regarded faculty member and administrator throughout his 37-year tenure. He was more than a brilliant educator and clinician—for Dorothy Mulkey MD, he was her mentor and advocate. Under his skilled guidance, Dr. Mulkey was among the first women to train in rheumatology at the University of Michigan. Her experience opened the door to a successful career as assistant dean at Michigan State University Medical School and a flourishing 30-year private practice.

Inspired by the mentorship of Dr. Bole, Dr. Mulkey was moved to dedicate an endowed estate gift to the Division of Rheumatology to support a professorship. A perfect pairing, Dr. Mulkey’s bequest now merges with generous alumni contributions made to the Giles G. Bole MD Collegiate Professorship to establish a fund that recognizes the impact of his leadership in rheumatology and the commitment that Dr. Mulkey—and students who came after her—have made to build upon his legacy. Because of the participation, interest, and resources of past rheumatology fellows, this new endowment will live on in perpetuity.

The Giles G. Bole MD and Dorothy Mulkey MD Research Professorship in Rheumatology creates an opportunity for the Department of Internal Medicine to attract and retain world class talent who will preserve U-M’s mission by embarking upon pioneering research and the training of future generations. It exemplifies the influence that faculty have on the career of up-and-coming physicians.

“Dr. Bole had expertise and vision—he was able to recognize and foster the potential of rheumatology fellows such as Dr. Mulkey. He was genuinely invested in his fellows,” says David A. Fox MD, Chief, Division of Rheumatology. “They experienced first-hand Dr. Bole’s mastery of the field of rheumatology, and we now have an endowment that not only honors one of our most distinguished division chiefs, it will also have a lasting impact on the field that we are all proud to serve.”
CONGRATULATIONS
to our 2016
Graduates!

Jasmine Stannard MD  
Rheumatologist,  
Integrated Healthcare  
Associates  
Ypsilanti, MI

Nayef Kazzaz MB BS  
Consultant,  
Security Forces Hospital  
Riyadh, Kingdom of Saudi Arabia

Viju Moses MB BS  
Assistant Professor,  
University of Florida  
College of Medicine

Beth Wallace MD  
Clinical Research Fellow/  
Lecturer,  
University of Michigan  
Division of Rheumatology

Amber Young MD  
Clinical Research Fellow/  
Lecturer,  
University of Michigan  
Division of Rheumatology

Please don’t forget to pay your annual dues.

William D. Robinson  
Alumni Society

$75  
pay online

New Fellows

Jessie Alperin MD  
Residency:  
Beaumont Health System

Danielle Barnes MD  
Residency:  
Beaumont Health System

Amrita Padda MD  
Residency:  
Washington University/Barnes Jewish Hospital

Andrew Vreede MD  
Residency:  
University of Wisconsin

Ultrasound with Dr. Bob Ike

After dabbling with musculoskeletal ultrasound for over a decade, Bob Ike has finally begun to turn out fellows proficient in the technique. Sara McCoy was the first, as she moved on to Wisconsin last year capable of performing US guided procedures independently. Sara blazed this trail in January 2015 when she offered up, with her trademark enthusiasm unknown to mankind, her assistance to the wounded Dr. Ike to keep injection clinic and lip biopsies going.

First year fellows sensed Sara was having a good time at this, and 2 signed up to follow. Nayef Kazzaz carved Fridays away from his lab time with Jason Knight while Viju Moses was encumbered only by 2 clinical projects, leaving him more time to remind Bob of his own surgical experience in India while suggesting directions in which the Interventional Rheumatology Program might be expanded. Viju also participated in the REASON (RhEumatoid Arthritis SynOvial tissue Network) program and learned how to do US-guided synovial biopsies. Both Nayef and Viju became proficient at percutaneous muscle biopsies, following Ruben Peredo, who took up this procedure while Bob was laid up. Nayef and Viju both took extramural US courses from the ACR and will be eligible to sit for the ACR US credentialing exam this fall. Navya Parsa will begin along this track in June, taking the same path as Sara, balancing time in Michelle Kahlenberg’s lab with procedures. New faculty member Zeinab Saleh is in the process of getting credentialed for US-guided procedures at U-M, joining Vladimir Ognenovski as rheumatologists Bob has proctored. Bob will spend a 3 month sabbatical at UCSD this winter with old fellow ex-arthroscopist Ken Kalunian. Bob occasionally offers vague teases at new twists to Interventional Rheumatology that might arise out of this time. Whatever the changes, it is likely that Navya and other fellows to come will embrace them under Bob’s tutelage.
Faculty News

Jason Knight MD, PhD, Assistant Professor, was an invited speaker at the 15th International Congress on Antiphospholipid Antibodies conference held in September in North Cyprus. His talk, entitled “The Central Role of Inflammation in Antiphospholipid Antibody-Mediated Thrombosis,” was part of Main Session 1: Mechanisms of Antiphospholipid Antibody-Mediated Thrombosis.

Follow Jason on Twitter @JasonSKnight

In an episode of Arthritis Now: Interviews About Science, 2015 ANRF (Arthritis National Research Foundation) grant recipient, Michelle Kahlenberg, MD, PhD, Assistant Professor, talks about her research into the correlation of skin and kidney involvement in lupus. “Research like Dr. Kahlenberg’s provides a better understanding of why lupus patients flare when exposed to sunlight and how we might treat those flares in the future.”

Follow Michelle on Twitter @KahlenbergLab

Amr Sawalha MD, Professor of Internal Medicine and Marvin and Betty Danto Research Professor of Connective Tissue Research, was invited to present a year in review about “Genetics & Genomics” during the Plenary Session at the recent Lupus 2016 meeting in Armonk, NY.

Follow Amr on Twitter @asawalha

Mariana Kaplan MD, Adjunct Professor and Chief, Systemic Autoimmunity Branch, NIAMS, National Institutes of Health received the Charles L. Christian Award at Lupus 2016 in Armonk, NY. The award recognizes a mid-career investigator who has made a significant advance in understanding the pathogenesis, impact, or treatment of lupus.
Faculty News: Grants and Funding

Rheumatology Research Foundation-Funding Study Shows Promise for New RA Treatments

Joseph Holoshitz MD, Professor of Internal Medicine and Associate Chief for Research in the Division of Rheumatology, and his laboratory have made significant advances in understanding a genetic risk factor of rheumatoid arthritis (RA). This knowledge has grown into discoveries that could lead to new RA treatments in just a few years. “There was a critical point in time when we had a big idea, but funding was a concern,” says Dr. Holoshitz. “Without the [Rheumatology Research] Foundation’s funding, it is unclear to me if the big project would have been viable.”

In 2007, Dr. Holoshitz received an award from the Foundation for his research focused on RA. He used the funding to study the mechanistic basis of the association between RA and an amino acid sequence in MHC proteins that contain what is called the shared epitope. Because the concept was so new to the scientific community, Dr. Holoshitz believes it likely would not have received funding from any other sponsor.

“The Foundation took a chance at letting us look at these out-of-the-box hypotheses,” says Dr. Holoshitz. “With that early data, we were able to establish the first set of findings that pushed us forward significantly in the years that followed.” Dr. Holoshitz’s laboratory eventually identified a new mechanism of action of the shared epitope, which is the single most significant genetic risk factor in RA. Today, Dr. Holoshitz is building on his initial Foundation-funded research. With the help of an Innovative Research Grant, he is studying new chemical compounds that potentially inhibit the shared epitope’s effect on RA patients and determine their effectiveness. He plans to begin clinical trials as early as 2020.  The Rheumatologist, March 2016

Inaugural MCTI Therapeutic Innovation Fund Selects Six Teams

Five teams from the Medical School and one from the College of Pharmacy have won funding to take their research on potential new medicines to the next level. The funding, announced by the Michigan Center for Therapeutic Innovation (MCTI) and Fast Forward Medical Innovation, (FFMI) comes from the new MCTI Therapeutic Innovation Fund, a five-year, $2.5 million fund to accelerate the discovery and translation of therapeutic candidates at the University of Michigan. Dr. Joseph Holoshitz leads one of the 6 teams.

The projects these teams will pursue span a broad therapeutic range from rheumatoid arthritis, intestinal fibrosis, and diabetes to cancer. "We were very impressed with the high quality of the 17 projects submitted for funding consideration," says Shaomeng Wang, founding director of MCTI and WarnerLambert/ParkeDavis Professor of Medicine, and professor of internal medicine, pharmacology and medicinal chemistry. "Through a rigorous review process by our Advisory Board of external industry experts and internal UM personnel experienced in drug development, these six outstanding projects were selected for funding in this cycle. We look forward to helping these teams advance their projects from laboratory to clinical development."

The MCTI Therapeutic Innovation Fund supports the discovery and optimization of small molecule lead compounds for projects with specific, novel, and testable drug discovery hypotheses. The fund is jointly administered by MCTI and FFMI. MCTI was launched to accelerate the discovery and translation of new small molecule therapeutics for the treatment of human disease through innovation and scientific collaboration. The University Record 26 October 2016

Late breaking...

Dr. Joseph Holoshitz (Principal Investigator) and Dr. Amr Sawalha (Co-Investigator) have recently been awarded a $1.7M, 5-year research grant titled Immune modulating HLA-coded ligands in rheumatoid arthritis from the National Institutes of Health to study novel mechanisms that facilitate or prevent disease development in individuals with genetic susceptibility for this disease.
Faculty News: Grants and Funding


Riociguat has recently been approved in the US and Canada for two forms of pulmonary hypertension, namely pulmonary arterial hypertension and treatment of chronic thromboembolic pulmonary hypertension. Riociguat is the first-in-class soluble guanylate cyclase stimulator that directly stimulates soluble guanylate cyclase independently of nitric oxide. Both the vascular effects of riociguat and the direct antifibrotic effects could be beneficial for the treatment of patients with systemic sclerosis.

Dr. Dinesh Khanna at U-M is leading an investigator-initiated, multi-site, phase II study designed to investigate the efficacy and safety of riociguat in patients with scleroderma-associated digital ulcers (Clinicaltrials.gov NCT02915835).

If you have patients or need more information, please contact: Jennelle Shaw/734-936-4555; Erica Bush/734-936-5615; or by email: ssc-coordinator@umich.edu.

Chronic pain researchers to expand work with $7.5 M award from NIH

Funding to span 5 years, focus on role the brain plays in acute and chronic pain

In order to better understand the disparity between identifiable damage and chronic pain, the National Institutes of Health has awarded $7.5 million over five years to physician-scientists at the University of Michigan Health System. We want to increase understanding of how peripheral damage or inflammation, and central nervous system factors, interact to cause acute and chronic pain," says co-principal investigator Daniel Clauw MD, U-M Professor of Anesthesiology, Psychiatry and Rheumatology and Director of U-M’s Chronic Pain and Fatigue Research Center.

The University of Michigan Fibromyalgia CORT, or Center of Research Translation, launches this fall and will study 800 subjects with chronic musculoskeletal pain, including inflammatory (rheumatoid arthritis), non-inflammatory (osteoarthritis) and neuropathic pain (carpal tunnel syndrome). Each cohort of subjects will undergo the latest fibromyalgia survey, developed in part by Clauw, to self-report the severity and location of their pain. They’ll also take part in experimental pain testing and brain imaging to help determine each subject’s volume control setting on pain processing.

We hope to demonstrate similarities in neuroimaging among those who suffer from high levels of chronic pain, including signs of centralized pain,” says Chad Brummett MD, co-principal investigator, U-M Associate Professor of Anesthesiology and Pain Management and Director of the Department of Anesthesiology’s Division of Pain Research.

See the full story at UMHS News.
Faculty News: Grants & Funding

RRF Career Development Bridge Funding: K Supplement

Jason Knight MD, PhD and Michelle Kahlenberg, MD, PhD are among the recipients of the 2016 Rheumatology Research Foundation’s Bridge Funding K Supplement program designed to encourage junior investigators to expand promising research by providing additional support to cover research costs and help investigators become independent.

The Foundation awarded only three K Supplements this year.

Jason’s project: Lupus neutrophils as instigators of thrombosis and autoimmunity

Michelle’s project: Interferon kappa as a novel target in cutaneous lupus

Scleroderma Foundation, Marta Marx Fund for the Eradication of Scleroderma

Pei-Suen (Eliza) Tsou PhD received a New Investigator Award for her project, Histone deacetylases in scleroderma: investigation of their roles in dysregulated angiogenesis. This award program is designed for promising new investigators who hold faculty or equivalent positions and who wish to pursue a career in research related to scleroderma. This grant supports promising research that is likely to lead to individual research project grants. The Foundation has designated the Marta Marx Fund for the Eradication of Scleroderma Award to be presented to a recipient of a research grant whose score ranks among the top two scored proposals.

American Association of Immunologists Career Development Award, Immunology Fellowship

The Careers in Immunology Fellowship program, launched in 2014, provides independent research scientists with fellowships supporting one year of salary for a trainee in their labs. Consideration for this award is based on:

- the merit of the PI’s proposed project
- the potential of the trainee
- the quality of the training environment

This award will provide funding for Sophina Taitano, a 4th year graduate student in Steve Lundy’s lab.
Staff Recognition

Susan Olsson Receives the Department of Internal Medicine Staff Award for Excellence in Clinical Support Activities

Exemplary is the word used to describe and nominate Susan Olsson for the Staff Award for Excellence. Sue has spent her nursing career with the U-M and has worked in Department of Internal Medicine clinics since 1998, with Rheumatology since 2012. In that time, she has helped to streamline multiple processes, initiated and provided training services for new employees, restructured how communications are managed, tirelessly and unselfishly worked overtime during staffing shortages, and never complains! Sue rolls with the punches, encourages others, instills confidence, and leads with suggestions for innovation and problem solving.

Customer service is just one of Sue’s incredible skills. Patients, referring physicians, and our own physicians, nurses and clinic staff are her customers and she gives them her best, with empathy, respect and attention. Many patients have commented on the mid-evening calls they receive from Sue to make sure that they are OK.

Sue is recognized by faculty and her co-workers for her leadership, efficiency, and commitment to excellence in all that she does, all of the time, with everyone with whom she comes in contact.

Division of Rheumatology Quality Month Participation

October is designated as Quality Month by the National Association for Health Care Quality. Teams throughout University of Michigan Hospitals & Health Centers (UMHHC) have been using the Plan-Do-Check-Act (PDCA) cycle year-round to make their work more collaborative, productive and effective. The Quality Month recognition event provides opportunity to showcase projects in a public display of storyboards. The Quality Month storyboard and recognition event took place on October 4-5, 2016. The Division of Rheumatology featured 3 posters:

Gaining Workflow Efficiencies in Triaging New Patients
Rheumatology Team: Claudette Peterson, Elaine St. Amie, David Fox, Steve Bearinger, Jan Stevens

Identifying MiChart InBasket Workflows in Rheumatology
Rheumatology Team: Various representation over the length of the two-year project from all groups involved in the patient care experience. Physicians, nursing, clinic staff, schedulers, administration.
Rheumatology Leadership: Steve Bearinger, Jan Stevens

Enhancing the Experience for Drug-Monitored Patients
Rheumatology Staff: Holly Culver, Barb Pietila, Caitlyn Kormos, Christine Poppy, Sherry Brant, Kelly Brower
Rheumatology Leadership: Karen Nairn, Steve Bearinger

---

Steve Bearinger, Dr. David Fox, Jan Stevens, Sue Olsson, Karen Nairn, Dr. Timothy Laing
Alumni News

A multi-year U-M fellows group at the ABIM exam writing committee meeting in October, left to right:

**Hilary Haftel** MD, MHPE (1995) Professor of Pediatrics and Communicable Diseases, C.S. Mott Children’s Hospital, Division of Rheumatology, University of Michigan, Ann Arbor, MI

**Kenneth O’Rourke** MD (1992) Professor of Internal Medicine-Rheumatology and Immunology, Wake Forest Baptist Medical Center, Winston-Salem, NC

**Mary Chester Wasko** MD, MSc (1990) Professor of Internal Medicine, Western Pennsylvania Allegheny Health Network, Pittsburgh, PA

---

**Jay B. Higgs MD** (1987) has been promoted to Professor of Medicine at the Uniformed Services University of the Health Sciences, Bethesda, MD. Congratulations!

While looking for something else in the University of Michigan Men’s Track & Field Record Book Dr. Bob Ike came across some interesting information about Richard Freyberg MD, the first director of the Rackham Arthritis Research Unit (1937-1944).

As an undergraduate student at the University of Michigan Richard Freyberg was an All-Time Letterwinner 1924 - 1926 and he was the captain of the U-M Men’s Track & Field Team in 1925.
In Memoriam

George W. Jourdian PhD
04/21/1929 - 11/28/2015

Bill received his Master's degree in Bacteriology, and then moved to Purdue (1954) to complete his PhD in Biochemistry. He completed postdoctoral training at the University of Michigan Rackham Arthritis Research Unit (1958) under the guidance of Saul Roseman. In 1961, Bill became a faculty member at the University of Michigan in the biological chemistry department and was promoted to associate professor in 1965. Bill's research focused on the biochemistry of glycoproteins and carbohydrates in cartilage. In the early 1980s, Bill discovered a receptor involved in intracellular and extracellular trafficking of lysosomal enzymes called the phosphomannosyl receptor. This landmark discovery was reported in the Proceedings of the National Academy of Science in 1981. Bill was a member of the editorial board of the Journal of Biological Chemistry for 5 years, president of the Society for Glycobiology for three years, and served on the Physiological Sciences Study Section of the National Institutes of Health. Academically, Bill is remembered for his teaching skill, innovative research, collegial nature, and enthusiasm for science. (Ann Arbor News, 06 December 2015)

Joseph J. Weiss MD, MACP
03/22/1934 - 10/25/2015

A graduate of the University of Michigan in 1955 and its Medical School in 1961, Joseph interrupted his training to serve in the US Public Health Service, which took him to many rural regions of the United States. Dr. Weiss joined Care-Medico to provide medical services in pre-Soviet Afghanistan for two years, and then went to what was then South Vietnam to care for civilian casualties of the war. Upon his return to the US, he completed an internal medicine residency and a rheumatology fellowship. From 1971 to 1981, Dr. Weiss served as a member of the faculty of the University of Michigan Medical School and as a staff physician at Wayne County General Hospital, where he was Director of Emergency services for five years. Since 1981 until less than a week before his death, he ran a rheumatology practice as a solo private practitioner and was an active medical staff member of St. Mary Mercy Hospital in Livonia. In 1998, Dr. Weiss was a recipient of the Michigan Chapter of the American College of Physicians' Laureate Award; some years later, he received their Lifetime Achievement Award; and earlier in 2015, the national organization honored him with the title of Master of the American College of Physicians. Joe was a tireless advocate for rheumatologists, and maintained close ties with the U-M Division of Rheumatology. (The Detroit News, 27 October 2015)

Wendy Eider MD
03/28/2016

Wendy was a proud graduate of the NYC public school system and received her B.S. in Biochemistry from Queens College (City University of New York). She started graduate school in Biochemistry at Washington University in St. Louis and transferred to its medical school, from which she graduated in 1976. She stayed in St. Louis to complete her residency in Internal Medicine before moving to Browning, Montana for two years to serve as a General Medical Officer on the Blackfeet Reservation, followed by a rheumatology fellowship at the University of Michigan Medical Center. In 1984, Wendy moved to Yakima, Washington, where she began a long, distinguished career as a rheumatologist. As a physician, she was respected by her colleagues and beloved by her patients. After closing her Yakima practice in 2010, Wendy continued to provide patient care on both sides of the Cascades, splitting her time among the V.A. Hospital Puget Sound, V.A. Clinic at American Lake, Farm Workers Clinics in Yakima and Toppenish, and Yakima Indian Health Service. She also taught residents and fellows as a Clinical Associate Professor at the University of Washington Medical School. Wendy was devoted to her patients, serving as both a compassionate provider and committed advocate for improving access to healthcare services. (Yakima Herald, 17 April 2016)
University of Michigan
William D. Robinson Alumni Society
Annual Dues for 2016 - $75

Check made payable to: Regents of the University of Michigan
mail to: Division of Rheumatology, 300 North Ingalls Street, Suite 7C27
Ann Arbor, MI 48109-5422, attn. Robin Henry

or

pay online at:
http://victors.us/williamrobinsonmdalumnisocietyfund

Follow our faculty on Twitter
@KahlenbergLab
@JasonSKnight
@ASawalha
@DrEmilySomers

Track #ACR16 while you’re at the annual meeting.

University of Michigan
William D. Robinson Alumni Society
Reception
Saturday, November 12th
The Henley Park Hotel
926 Massachusetts Avenue, NW
The Blue Bar • 7:00 - 9:00 pm

RheUMinations is published bi-annually.
Please let us know if your contact information has changed.
To share your news and updates with us email Gail at quader@umich.edu.

RheUMinations Editor: Gail Quaderer

The University of Michigan is an equal opportunity/affirmative action employer.
ACR National Meeting, November 11 - 16, 2016
Opening Ceremony, William D. Robinson Alumni Society Reception, Oral Presentations, Moderators, Guided Poster Tour, & Abstracts

Saturday, Nov 12

Opening Reception: 6:30 - 8:00 PM  ●  Marriott Marquis - Marquis Ballroom

University of Michigan Alumni & Robinson Society Reception: 7 - 9:00 PM
The Henley Park Hotel, The Blue Bar 1 & 2  ●  926 Massachusetts Avenue, NW

Oral Presentations

Laing, Timothy, MD
Title:  Keynote Address: MACRA: Putting Together the Pieces for Your Practice
Session:  ACR Practice Management Course: The Next Generation of Business Devt for Rheumatology Practices
Date:   Saturday, Nov 12 8:00 AM
Duration:   75 minutes
Location:  140 A

Khanna, Dinesh, MD, MS
Title:  Lung Disease in Systemic Sclerosis (SSc): Current (and Future) Therapies for SSc-Interstitial Lung Disease: Review Clinical Therapies for SSc-ILD and On-Going Clinical Trials
Session:  ACR Clinical Research Conference: Lung Disease in Rheumatology - Day 2/2
Date:   Saturday, Nov 12 9:25 AM
Duration:   35 minutes
Location:  Ballroom C

Glick, Gary D., PhD
Title:  Systemic Autoimmunity: I Immunometabolism Regulation of Graft vs. Host Disease
Session:  ACR Basic Research Conference: Cellular Metabolism and Stress Response in Immune-Mediated Inflammatory Disease - Day 2/2
Date:   Saturday, Nov 12 3:40 PM
Duration:   40 minutes
Location:  Ballroom A

Sunday, Nov 13

Khanna, Dinesh, MD, MS
Title:  Safety and Efficacy of Subcutaneous Tocilizumab in Early Systemic Sclerosis: Results from the Open Label Period of a Phase 2 Randomized, Controlled Trial
Session:  Systemic Sclerosis, Fibrosing Syndromes, and Raynauds’ – Clinical Aspects and Therapeutics I
Date:   Sunday, Nov 13 2:30 PM
Duration:   15 minutes
Location:  151 A

Kahlenberg, J. Michelle, MD, PhD
Title:  Interferon Regulatory Factor 1 Is the Key Driver of Inflammasome Activity in Systemic Lupus Erythematosus
Session:  Innate Immunity and Rheumatic Disease
Date:   Sunday, Nov 13 5:00 PM
Duration:   15 minutes
Location:  146 A
Monday, Nov 14

Sawalha, Amr H., MD
Title: Genetics and Pathogenesis of Takayasu’s Arteritis
Session: Advances in Takayasu’s Arteritis
Date: Monday, Nov 14 2:30 PM
Duration: 30 minutes
Location: Hall D

Gensterblum, Elizabeth, BS (Sawalha Lab)
Title: Identification of Novel Genetic Susceptibility Loci in Primary Antiphospholipid Syndrome
Session: Antiphospholipid Syndrome
Date: Monday, Nov 14 2:30 PM
Duration: 15 minutes
Location: 150 A

Monrad, Seetha, MD
Title: 2016 CARE: MOC Sessions 2 of 3: Nonarticular & Regional Musculoskeletal Disorders
Session: 2016 CARE: MOC Sessions 2 of 3: Nonarticular & Regional Musculoskeletal Disorders
Date: Monday, Nov 14 2:30 PM
Duration: 15 minutes
Location: 146 A

Stevens, Jan, BA
Title: Current Topics for Advocacy in Rheumatology that Impact Patient Care, Teaching and Research
Session: The Power of Arthritis Advocacy
Date: Monday, Nov 14 2:30 PM
Duration: 30 minutes
Location: 143 A

Knight, Jason S., MD, PhD
Title: Antiphospholipid Syndrome Neutrophils are Characterized by Overexpression of P-Selectin Glycoprotein Ligand 1, A Potential Therapeutic Target
Session: Antiphospholipid Syndrome
Date: Monday, Nov 14 2:45 PM
Duration: 15 minutes
Location: 150 A

Dodge, Carole V., OT, CHT
Title: Opportunities for Advocacy in Rheumatology
Session: The Power of Arthritis Advocacy
Date: Monday, Nov 14 3:00 PM
Duration: 30 minutes
Location: 143 A

Khanna, Dinesh, MD, MS
Title: Performance of Modified Rodnan Skin Score in Early Diffuse Cutaneous Scleroderma – Analysis from 4 International Cohorts
Session: Systemic Sclerosis, Fibrosing Syndromes, and Raynauds’ – Clinical Aspects and Therapeutics II
Date: Monday, Nov 14 3:15 PM
Duration: 15 minutes
Location: 145 A

Wolf, Sonya, BS (Kahlenberg Lab)
Title: TLR-7-Mediated Lupus Nephritis Flares are Independent of Type 1 Interferon Signaling
Session: Systemic Lupus Erythematosus – Animal Models
Date: Monday, Nov 14 4:45 PM
Duration: 15 minutes
Location: 140 A
Knight, Jason S., MD, PhD
Title: Ectonucleotidase-Mediated Protection of Lupus Mice from Exaggerated Immune Responses and Arterial Vasculopathy
Session: Systemic Lupus Erythematosus – Animal Models
Date: Monday, Nov 14 5:00 PM
Duration: 15 minutes
Location: 140 A

Tuesday, Nov 15

Clauw, Daniel J., MD
Title: Fibromyalgia 2016: Update on Management (066)
Session: Meet the Professor
Date: Tuesday, Nov 15 7:45 AM
Duration: 15 minutes
Location: 158 A

Khanna, Dinesh, MD, MS
Title: Pulmonary Hypertension in the Rheumatic Diseases
Session: Pulmonary Hypertension in the Rheumatic Diseases
Date: Tuesday, Nov 15 12:45 PM
Duration: 15 minutes
Location: 155

Renauer, Paul, BS (Sawalha Lab)
Title: Dense Genotyping of Immune Related Loci in a Multi-Ethnic Behçet’s Disease Cohort Identifies Genetic Associations in a Long Noncoding RNA Near QSOX2, RASIP1/FUT2, and IL12A-AS1
Session: Vasculitis III: Pathogenic Mechanisms
Date: Tuesday, Nov 15 3:00 PM
Duration: 15 minutes
Location: Salon B

Ohara, Ray A., BS (Fox Lab)
Title: Citrullination of Inhibitor of DNA Binding-1 at Specific Locations Leads to Autoantigenicity in Rheumatoid Arthritis
Session: Rheumatoid Arthritis – Human Etiology and Pathogenesis I
Date: Tuesday, Nov 15 3:15 PM
Duration: 15 minutes
Location: 145 A

Dodge, Carole V., OT, CHT
Title: Evolution of Occupational Therapy Practiced in Adult Rheumatology, Past, Present and Future
Session: Physical and Occupational Therapies Through the Lifespan in the Biologic Era
Date: Tuesday, Nov 15 5:30 PM
Duration: 30 minutes
Location: 140 A

Wednesday, Nov 16

Clauw, Daniel J., MD
Title: Fibromyalgia: Central or Peripheral? Primary and Secondary?
Session: Fibromyalgia
Date: Wednesday, Nov 16 9:00 AM
Duration: 60 minutes
Location: Ballroom A
Khanna, Puja, MD, MPH
Title: Development and Pilot Testing of an Online Educational Tool for Gout Patients — Mygoutcare®
Session: Metabolic and Crystal Arthropathies II: Clinical Practice
Date: Wednesday, Nov 16 10:15 AM
Duration: 15 minutes
Location: 202 B

Kahlenberg, J. Michelle, MD, PhD
Title: Interferon Kappa Is a Novel Type I IFN That Drives Cutaneous Inflammation in Systemic Lupus
Session: Systemic Lupus Erythematosus – Human Etiology and Pathogenesis II
Date: Wednesday, Nov 16 11:15 AM
Duration: 15 minutes
Location: 147 A

Namas, Rajaie, MD
Title: Efficacy of Mycophenolate Mofetil and Oral Cyclophosphamide on Skin Thickness: Post-Hoc Analyses from the Scleroderma Lung Study I and II
Session: Systemic Sclerosis, Fibrosing Syndromes, and Raynaud's – Clinical Aspects and Therapeutics III
Date: Wednesday, Nov 16 11:45 AM
Duration: 15 minutes
Location: 146 A

Moderator
Kahlenberg, J. Michelle, MD, PhD
Session: Innate Immunity and Rheumatic Disease
Date: Sunday, Nov 13 4:30 PM
Duration: 90 minutes
Location: 146 A

Phillips, Kristine, MD, PHD
Session: Rheumatoid Arthritis – Clinical Aspects II: Risk and Impact of Comorbidity
Date: Monday, Nov 14 2:30 PM
Duration: 90 minutes
Location: Ballroom C

Phillips, Kristine, MD, PHD
Session: ACR/ARHP Combined Abstract Session: Epidemiology and Public Health
Date: Monday, Nov 14 4:30 PM
Duration: 90 minutes
Location: 145 A

Monrad, Seetha, MD
Session: The Rheumatology Workforce: Present & Future (Business/Administration & Educator Tracks)
Date: Monday, Nov 14 4:30 PM; panel discussion begins at 5:20 PM
Duration: 90 minutes
Location: 143 A

Gewurz-Singer, Ora, MD, MS
Session: Orthopedics, Low Back Pain and Rehabilitation
Date: Tuesday, Nov 15 2:30 PM
Duration: 90 minutes
Location: 209 A
Guided Poster Tour

Sawalha, Amr H., MD
Date: Monday, Nov 14 9:00 AM
Duration: 45 minutes
Location: Poster Hall – Hall C

University of Michigan Abstracts

Sunday, November 13

Session: Fibromyalgia, Soft Tissue Disorders, Regional and Specific Clinical Pain Syndromes – Poster 1: Basic Science Focus
Time: 9:00 - 11:00 AM
Type: ACR Poster Session A

Abstract Number: 34
Differential Analgesic Pharmacological Effects on Brain Connectivity in Fibromyalgia (FM)
Eric Ichesco1, Johnson Hampson2, Lynne Pauer3, Andrew Clair4, Tobias Schmidt-Wilcke5, David Williams6, Daniel J. Clauw4 and Richard E. Harris7, Chronic Pain and Fatigue Research Center, University of Michigan, Ann Arbor, MI, 2Anesthesiology, University of Michigan, Ann Arbor, MI, 3Pfizer Inc, New London, CT, 4Pfizer, New York, NY, 5Bergmannsheil, Bochum, Germany, 6Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI, 7Anesthesiology, U. Michigan, Ann Arbor, MI

Abstract Number: 46
Novel Composite Responder Endpoints for Fibromyalgia Therapy Assessment
R Michael Gendreau1, Lesley Arnold6, Daniel J. Clauw3, Judith Gendreau4, Bruce Daugherty4 and Seth Lederman4, 1Gendreau Consulting LLC, Poway, CA, 2University of Cincinnati, Cincinnati, OH, 3Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI, 4Tonix Pharmaceuticals, New York, NY

Session: Genetics, Genomics and Proteomics - Poster 1
Time: 9:00 - 11:00 AM
Type: ACR Poster Session A

Abstract Number: 71
A Rare Coding Allele in IFIH1 is Protective for Psoriatic Arthritis
Ashley Budu-Aggrey1, John Bowes5, Philip E. Stuart2, Matthew Zawistowski4, Lam C. Tsol5, Rajan P. Nair6, Eleanor Korendowych6, Neil J McHugh7, James T. Elder8 and Soumya Raychaudhuri9, 1NIHR Manchester Musculoskeletal Biomedical Research Unit, Central Manchester Foundation Trust and University of Manchester, Manchester Academy of Health Sciences, Manchester, United Kingdom, 2Arthritis Research UK Centre for Genetics and Genomics, Centre for Musculoskeletal Research, University of Manchester, Manchester, UK, 3Department of Dermatology, University of Michigan Medical School, Ann Arbor, MI, 4Department of Biostatistics and Center for Statistical Genetics, University of Michigan, Ann Arbor, MI, 5University of Michigan Medical School, Ann Arbor, MI, 6Royal National Hospital for Rheumatic Diseases and Dept Pharmacy and Pharmacology, University of Bath, Bath, United Kingdom, 7Arthritis Research UK, Centre for Genetics and Genomics, Centre for Musculoskeletal Research, Manchester Academic Health Sciences Centre, The University of Manchester, Manchester, United Kingdom, 8The Kellgren Centre for Rheumatology, Central Manchester Foundation Trust, NIHR Manchester Biomedical Research Centre, Manchester, United Kingdom, 9Brigham and Women's Hospital, Boston, MA
Abstract Number: 89
2015 ACR/ARHP Workforce Study (WFS): Adult Rheumatology Specialists in the United States: Effect of Gender and Generation
Chad Deal¹, Marcy B. Bolster², Jonathan S. Hausmann³, Daniel Battafarano⁴, Seetha Monrad⁵ and Marcia Ditmyer⁶, ¹Orthopedic and Rheumatology Institute, Cleveland Clinic Foundation, Cleveland, OH, ²Massachusetts General Hospital, Boston, MA, ³Rheumatology, Beth Israel Deaconess Medical Center, Boston, MA, ⁴Medicine, San Antonio Military Medical Center, San Antonio, TX, ⁵Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, ⁶University of Nevada, Las Vegas, NV

Abstract Number: 93
ABSTRACT NUMBER: 93
Daniel Battafarano¹, Seetha Monrad², John Fitzgerald³, Marcy Bolster⁴, Chad Deal⁵,⁶, Anne R. Bass⁷, Rodolfo Molina⁸, Alan R. Erickson⁹, Benjamin J. Smith¹⁰, Karla B. Jones¹¹, Jonathan S. Hausmann¹², Val Gokenbach¹³, Kamilah Lewis¹⁴ and Marcia Ditmyer¹⁵, ¹Medicine, San Antonio Military Medical Center, San Antonio, TX, ²Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, ³Medicine, UCLA, Los Angeles, CT, ⁴Rheumatology, Allergy and Immunology, Massachusetts General Hospital, Boston, MA, ⁵Orthopedic and Rheumatology Institute, Cleveland Clinic Foundation, Cleveland, OH, ⁶Dept of Rheum & Imm Dis / A 50, Cleveland Clinic Foundation, Cleveland, OH, ⁷Rheumatology, Hospital for Special Surgery, New York, NY, ⁸Arthritis Associates PA, San Antonio, TX, ⁹Omaha VA Medical Center and University of Nebraska Medical Center, Omaha, NE, ¹⁰Rheumatology, McIntosh Clinic, P.C., Thomasville, GA, ¹¹Rheumatology, Nationwide Children's, Columbus, OH, ¹²Rheumatology, Beth Israel Deaconess Medical Center, Boston, MA, ¹³Academy for Academic Leadership, Detroit, MI, ¹⁴American College of Rheumatology, Atlanta, GA, ¹⁵Academy for Academic Research, Las Vegas, NV

Abstract Number: 99
Academic and Non-Academic Rheumatology: Practice Trends and Common Barriers to Practice from the 2015 ACR/ARHP Workforce Study Survey
Seetha Monrad¹, Daniel Battafarano² and Marcia Ditmyer³, ¹Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, ²Medicine, San Antonio Military Medical Center, San Antonio, TX, ³Academy for Academic Research, Las Vegas, NV

Abstract Number: 102
The 2015 American College of Rheumatology (ACR) Workforce Study: A Snapshot of Academic Division Directors
Marisa S. Klein-Gitelman¹, Daniel Battafarano², Seetha Monrad³ and Marcia Ditmyer⁴, ¹Div of Pediatric Rheumatology/PDD PTD, Lurie Children's Hospital of Chicago/NW University, Chicago, IL, ²Medicine, San Antonio Military Medical Center, San Antonio, TX, ³Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, ⁴Academy for Academic Research, Las Vegas, NV

Abstract Number: 207
Integrated Safety of Lesinurad, a Novel Uric Acid Reabsorption Inhibitor for the Treatment of Gout
Michael A. Becker, Robert T. Keenan, Puja Khanna, Raymond Malamet, Kathleen Bos, Jingyi Li, Jia Hu and William White, ¹University of Chicago, Chicago, IL, ²Rheumatology, Duke University, Durham, NC, ³Rheumatology, University of Michigan, Ann Arbor, MI, ⁴AstraZeneca Pharmaceuticals, Wilmington, DE, ⁵Ardea Biosciences, Inc., San Diego, CA, ⁶University of Connecticut School of Medicine, Farmington, CT

Abstract Number: 222
Role of Synovial Biopsy in Diagnosis of Crystal Arthropathies
Viju Moses, Jaya Asirvatham, Jonathan McHugh and Robert Ike, ¹Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Department of Pathology, University of Michigan, Ann Arbor, MI

Abstract Number: 226
Comparing the Burden of Illness of Patients with Tophaceous and Non-Tophaceous Gout in France, Germany, Italy, Spain, UK, and USA
Puja Khanna¹, Eskinder Tafesse², Scott Baumgartner³, Anna Walker⁴ and Robert Morlock⁵, Pet Rheumatology, University of Michigan, Ann Arbor, MI, ²AstraZeneca Pharmaceuticals, Gaithersburg, MD, ³Ardea Biosciences, Inc., San Diego, CA, ⁴AstraZeneca Pharmaceuticals, Luton, United Kingdom

Session: Pain – Basic and Clinical Aspects - Poster
Time: 9:00 - 11:00 AM
Type: ACR Poster Session A
Abstract Number: 370
Relationship between Alcohol Consumption and Symptom Severity in Chronic Pain Patients
J. Ryan Scott¹, Steven E. Harte², Chad M. Brummett¹, Richard E. Harris¹, Afton L. Hassett¹ and Daniel J. Clauw¹, ¹Anesthesiology, University of Michigan, Ann Arbor, MI, ²Department of Anesthesiology, University of Michigan, Ann Arbor, MI

Session: Pain – Clinical Aspects - AHRP Poster
Time: 9:00 - 11:00 AM
Type: ACR Poster Session A
Abstract Number: 379
Pain Catastrophizing Decreases in RA Patients Starting, Adding or Switching a DMARD
Ezra Cohen¹, Alyesa Wohlfahrt¹, Robert R. Edwards³, Clifton Bingham III⁴, Marcy Bolster⁵, Larry W. Moreland⁶, Tuhina Neogi⁷, Kristine Phillips⁸ and Yvonne C. Lee⁹, ¹Boston Children's Hospital, Boston, MA, ²Rheumatology, Immunology and Allergy, Brigham and Women's Hospital, Boston, MA, ³Anesthesiology, Brigham & Women's Hospital, Chestnut Hill, MA, ⁴Divisions of Rheumatology and Allergy, Department of Medicine, Johns Hopkins University, Johns Hopkins University, Baltimore, MD, ⁵Rheumatology, Allergy and Immunology, Massachusetts General Hospital, Boston, MA, ⁶Rheumatology & Clinical Immunology, University of Pittsburgh, Pittsburgh, PA, ⁷Clinical Epidemiology, Boston University School of Medicine, Boston, MA, ⁸Rheumatology, University of Michigan, Ann Arbor, MI, ⁹Rheumatology Immunology & Allergy, Brigham and Women's Hospital and Harvard Medical School, Boston, MA

Session: Pediatric Rheumatology – Clinical and Therapeutic Aspects - Poster 1
Time: 9:00 - 11:00 AM
Type: ACR Poster Session A
Abstract Number: 393
Association of Sex, Race and Ethnicity on Disease Outcomes in Juvenile Idiopathic Arthritis Patients
Vivek Joseph¹, Tracy R. Andrews², Esi Morgan³, Ronald Laxer⁴, Cagri Yildirim-Toruner⁵, Tzielan Lee⁶,⁷, Beth S. Gottlieb⁸, C. April Bingham⁹, Sheetal S. Vora¹⁰, Jon M. Burnham¹¹, Judyann C. Olson¹², Murray H. Passo¹³, Michelle Batthish¹⁴, Meredith Riebschleger¹⁵ and Jennifer E. Weiss¹⁶, ¹Internal Medicine, Rutgers New Jersey Medical School, Bloomfield, NJ, ²Biostatistics, David & Alice Jurist Institute, Hackensack University Medical Center, Hackensack, NJ, ³Pediatric Rheumatology, Cincinnati Children's Hospital, Cincinnati, OH, ⁴Div of Rheumatology, The Hospital for Sick Children, Toronto, ON, Canada, ⁵Rheumatology, Nationwide Children's Hospital, Columbus, OH, ⁶Dept of Pediatric Rheumatology, Stanford Univ School of Med, Palo Alto, CA, ⁷Pediatric Rheumatology, Stanford University School of Medicine, Palo Alto, CA, ⁸Pediatric Rheumatology, The Steven and Alexandra Cohen Children's Medical Center of New York, The Hofstra North Shore-LIJ School of Medicine, New Hyde Park, NY, ⁹Penn State Health Children's Hospital, Hershey, PA, ¹⁰Pediatric Rheumatology, Medical College of Wisconsin, Milwaukee, WI, ¹¹Pediatric Rheumatology, Children's Hospital Philadelphia, Philadelphia, PA, ¹²Ped/MAC Fund Research Ctr, Medical College of Wisconsin, Milwaukee, WI, ¹³Division of Rheumatology PTD, Medical University of South Carolina, Charleston, SC, ¹⁴Division of Pediatric Rheumatology, McMaster Children's Hospital, Hamilton, ON, Canada, ¹⁵Pediatric Rheumatology, University of Michigan, CS Mott Children's Hospital, Ann Arbor, MI, ¹⁶Hackensack Univ Med Ctr, Hackensack, NJ

Abstract Number: 394
Effect of BMI on Symptoms and Outcomes in Juvenile Idiopathic Arthritis Patients
Jennifer E. Weiss¹, Tracy Andrews², Esi Morgan³, Ronald Laxer⁴, Cagri Yildirim-Toruner⁵, C. April Bingham⁶, Beth Gottlieb⁷, Tzielan Lee⁸, Sheetal S. Vora⁹, Jon M. Burnham¹⁰, Judyann C. Olson¹¹, Murray Passo¹², Michelle Batthish¹³ and Meredith Riebschleger¹⁴, ¹Hackensack Univ Med Ctr, Hackensack, NJ, ²Biostatistics, David & Alice Jurist Institute, Hackensack University Medical Center, Hackensack, NJ, ³Pediatric Rheumatology, Cincinnati Children's Hospital, Cincinnati, OH, ⁴Div of Rheumatology, The Hospital for Sick Children, Toronto, ON, Canada, ⁵Rheumatology, Nationwide Children's Hospital, Columbus, OH, ⁶Penn State Health Children's Hospital, Hershey, PA, ⁷Pediatric Rheumatology PTD, Cohen Children's Medical Center of New York, Lake Success, NY, ⁸Dept of Pediatric Rheumatology, Stanford Unv School of Med, Palo Alto, CA, ⁹Pediatric Rheumatology, Children's Hospital Philadelphia, Philadelphia, PA, ¹⁰Ped/MAC Fund Research Ctr, Medical College of Wisconsin, Milwaukee, WI, ¹¹Pediatric Rheumatology, Children's Hospital of Philadelphia, Philadelphia, PA, ¹²Ped/MAC Fund Research Ctr, Medical College of Wisconsin, Milwaukee, WI, ¹³Pediatric Rheumatology, Medical University of South Carolina, Charleston, SC, ¹⁴Division of Pediatric Rheumatology, McMaster Children's Hospital, Hamilton, ON, Canada, ¹⁵Pediatric Rheumatology, University of Michigan, CS Mott Children's Hospital, Ann Arbor, MI
Session: Rheumatoid Arthritis – Human Etiology and Pathogenesis - Poster I
Time: 9:00 - 11:00 AM
Type: ACR Poster Session A

Abstract Number: 572
Anti-Periodontal Bacteria Antibody Titers Are Inversely Correlated with ACPA in RA-Free Individuals with Periodontal Disease Compared to Community Controls
Emma Weeding1, Londyn Robinson2, Jeremy Sokolove3, Julie Marchesan4, Steven Offenbacher5, William H. Robinson3, Ryan Demmer3, Bryan Michalowicz3 and Jerry A. Molitor7, 1Department of Internal Medicine, University of Michigan, Ann Arbor, MI, 2University of Minnesota, Minneapolis, MN, 3Stanford University School of Medicine, Stanford, CA, 4Department of Periodontology, Dental School, University of North Carolina at Chapel Hill, Chapel Hill, NC, 5Epidemiology, Columbia University Mailman School of Public Health, New York, NY, 6Department of Developmental and Surgical Sciences, University of Minnesota, Minneapolis, MN, 7Rheumatic/Autoimmune Diseases, University of Minnesota, Minneapolis, MN

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

Abstract Number: 820
EZH2 Modulates Angiogenesis and Fibrosis in Scleroderma
Pei-Suen Tsou, Patrick Coit, Dinesh Khanna and Amr H Sawalha, Division of Rheumatology, University of Michigan, Ann Arbor, MI

Abstract Number: 824
Mycophenolate versus Placebo for the Treatment of Systemic Sclerosis-Related Interstitial Lung Disease
Elizabeth R. Volkman1, Donald P. Tashkin2, Ning Li3, Michael Roth4, Dinesh Khanna5, Anna-Maria Hoffmann-Vold6, Philip J. Clements5, Daniel E. Forst1, Robert Elashoff7 and Scleroderma Lung Study II Group, 1University of California, Los Angeles, Los Angeles, CA, 2David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 3UCLA, Los Angeles, CA, 4Medicine, University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 5University of Michigan, Ann Arbor, MI, 6Oslo University Hospital, Oslo, Norway, 7Biomathematics, University of California, Los Angeles, Los Angeles, CA

Abstract Number: 832
Defining Skin Ulcers in Systemic Sclerosis: A Systematic Literature Review of Skin Ulcer Definitions and a Preliminary Consensus-Based New SSc Skin Ulcer Definition
Yossra A Suliman1, Cosimo Bruni2, Sindhu R. Johnson3, Emanuela Praino4, Mohamed Alemam5, Nabeel Borazan6, Laura Cometi7, Bethany Myers8, Dinesh Khanna9, Yannick Allanor10, Murray Baron11, Thomas Krieg12, Ariane L. Herrick13, Suzanne Kafaja14, Christopher Denton15, Marco Matucci Cerinic16 and Daniel E. Furst17, 1Rheumatology and Rehabilitation Dept.,/Department of Experimental and Clinical Medicine, University of Catania, Catania, Italy, 2Rheumatology, University of Catania, Catania, Italy, 3Rheumatology, Mount Sinai Hospital and University Health Network, Toronto, ON, Canada, 4DIM, Rheumatology Unit, Bari, Italy, 5Clinical Pathology and Laboratory Medicine Department, Assistant Lecturer, Qena, Egypt, 6Medicine, David Geffen School of Medicine, Los Angeles, CA, 7Division of Rheumatology, Department of Experimental and Clinical Medicine., Florence, Italy, 8UCLA Louise M. Darling Biomedical Library, Research Informationist, Los Angeles, CA, 9University of Michigan, Ann Arbor, MI, 10Immunogenetics, Cochin Institute, Paris, France, 11Rheumatology, McGill University, Jewish General Hospital, Montreal, QC, Canada, 12Universität zu Köln, Köln, Germany, 13Centre for Musculoskeletal Research, University of Manchester, MAHSC, Salford Royal Hospital, Manchester, United Kingdom, 14Medicine/Rheumatology, University of California Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 15Division of Medicine, Centre for Rheumatology and Connective Tissue
A Small Proportion of Patients with Systemic Sclerosis with Suspected Pulmonary Hypertension Meet the Published Inclusion/Exclusion Criteria for Two Systemic Sclerosis Associated Pulmonary Arterial Hypertension Screening Algorithms– Results from a Single Center Cohort


1Department of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, 2Department of Internal Medicine, Division of Cardiology, University of Michigan, Ann Arbor, MI, 3Department of Medicine [Division of Rheumatology], University of Toledo, Toledo, OH, 4Internal Medicine, Division of Cardiology, University of Michigan, Ann Arbor, MI, 5University of Michigan, Ann Arbor, MI

Comprehensive Characterization of Calcinosi s in a Multicenter International Cohort of Patients with Systemic Sclerosis

Antonia Valenzuela7,8, Jessica K. Gordon9, Tatiana Sofia Rodriguez-Reyna4, Susanna Proudman6,6, Murray Baron7, Monique Hinchcliffe1, Dinesh Khanna9, Amber Young10, Flavia V. Castelino11, Sara R. Schoenfeld12, Virginia D. Steen13, David Fiorentino14 and Lorinda Chung15.

Division of Immunology and Rheumatology, Stanford University School of Medicine, Palo Alto, CA, 2Stanford University School of Medicine, Stanford, CA, 3Rheumatology, Hospital for Special Surgery, New York, NY, 4Immunoology and Rheumatology, Instituto Nacional de Ciencias Médicas y Nutrición Salvador Zubirán, Mexico City, Mexico, 5Rheumatology Unit, Royal Adelaide Hospital, Adelaide, Australia, 6Discipline of Medicine, University of Adelaide, Adelaide, Australia, 7Rheumatology, McGill University, Jewish General Hospital, Montreal, QC, Canada, 8Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL, 9University of Michigan, Ann Arbor, MI, 10Division of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, 11Rheumatology, Allergy, Immunology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 12Rheumatology Unit, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 13Rheumatology, Georgetown University Medical Center, Washington, DC, 14Department of Dermatology, Stanford University School of Medicine, Palo Alto, CA, 15Rheumatology, Stanford University Medical Center, Palo Alto, CA
Abstract Number: 928

2015 ACR/ARHP Workforce Study in the United States: A Maldistribution of Adult Rheumatologists

Katrina Lawrence-Wolff1, Bernard Hildebrand1, Seetha Monrad2, Marcia Ditmyer3, John Fitzgerald4, Alan Erickson5, Anne R. Bass6 and Daniel Battafarano1, Rheumatology, San Antonio Military Medical Center, San Antonio, TX, 1Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, 2University of Nevada, Las Vegas, NV, 3Rheumatology, UCLA, Los Angeles, CA, 4University of Nebraska, LaVista, NE, 5Rheumatology, Hospital for Special Surgery, New York, NY, 6Medicine, San Antonio Military Medical Center, San Antonio, TX

Abstract Number: 969

Safety and Efficacy of Subcutaneous Tocilizumab in Early Systemic Sclerosis: Results from the Open-Label Period of a Phase 2 Randomized, Controlled Trial

Dinesh Khanna1, Christopher Denton2, Helen Spotswood3, Angelika Jahreis4, Jacob M. van Laar5, Laura Burke6, Celia J. F. Lin4, Janet E. Pope7, Yannick Allanore8, Ulf Müller-Ladner9, Jeffrey Siegel10 and faSScinate Clinical Trial Investigators, 1University of Michigan, Ann Arbor, MI, 2Division of Medicine, Centre for Rheumatology and Connective Tissue Disease, University College London, London, United Kingdom, 3Roche Products Ltd., Welwyn Garden City, CA, United Kingdom, 4Genentech, South San Francisco, CA, 5University Medical Center Utrecht, Utrecht, Netherlands, 6Roche Products Ltd., Welwyn Garden City, United Kingdom, 7University of Western Ontario, St Joseph's Health Care, London, ON, Canada, 8Rheumatology, Paris Descartes University, Paris, France, 9Justus-Liebig-University Giessen, Department of Internal Medicine and Rheumatology, Kerckhoff-Klinik, Bad Nauheim, Germany, Bad-Nauheim, Germany, 10University of California, Los Angeles, Los Angeles, CA

Abstract Number: 971

Reliability and Minimal Clinically Important Differences (MCID) of Forced Vital Capacity: Post-Hoc Analyses from the Scleroderma Lung Studies (SLS-I and II)

Suzanne Kafaja1, Philip J. Clements2, Holly Wilhalme3, Daniel E. Furst4, Chi-hong Tseng2, Kim Hyun5, Jonathan Goldin3, Elizabeth R. Volkmann6, Michael Roth7, Donald P. Tashkin8 and Dinesh Khanna9, Medicine/Rheumatology, University of California Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 2Medicine, University of California, Los Angeles, 3University of California, Los Angeles, 4University of California, Los Angeles, 5Radiology, David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 6Division of Rheumatology and Clinical Immunology, Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA, 7Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, 8University of Nevada, Las Vegas, NV, 9Pulmonary and Critical Care Medicine, Columbia University, New York, NY, 10Pediatrics, Northwestern University, Chicago, IL

Abstract Number: 927

2015 ACR/ARHP Workforce Study in the United States: Pediatric Rheumatologist Supply and Demand Projections for 2015-2030

Daniel Battafarano1, Seetha Monrad2, Marcia Ditmyer3, Lisa Imundo4 and Marisa Klein-Gitelman5, 1Medicine, San Antonio Military Medical Center, San Antonio, TX, 2Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, 3University of Nevada, Las Vegas, NV, 4Pediatrics, Columbia University, New York, NY, 5Pediatrics, Northwestern University, Chicago, IL

Abstract Number: 922

Negative Regulation of IL-17 Receptor Signaling By Regnase-1 Limits Immunopathology in a Mouse Model of Psoriatic Skin Disease

Sarah L. Gaffen1, Leticia Monin2, Nicole Ward3, Johan Gudjonsson4, Abhishek Garg5, Alicia Mathers2 and Pappachan Kolattukudy6, 1Division of Rheumatology and Clinical Immunology, Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, PA, 2University of Pittsburgh, Pittsburgh, PA, 3Case Western Reserve University, Cleveland, OH, 4Dermatology, University of Michigan, Ann Arbor, MI, 5Rheumatology/Clinical Immun, University of Pittsburgh, Pittsburgh, PA, 6University of Central Florida, Orlando, FL
Session: **Fibromyalgia, Soft Tissue Disorders, Regional and Specific Clinical Pain Syndromes**

**Time:** 4:30 - 6:00 PM  
**Type:** ACR Concurrent Abstract Session

**Abstract Number:** 994  
**Validation Studies of the American College of Rheumatology (ACR) 2010 Fibromyalgia Diagnostic Criteria and the 2011 Self-Report Modification for Survey and Clinical Research**  
Frederick Wolfe¹, Daniel J. Clauw², MaryAnn FitzCharles³, Don Goldenerberg⁴, Winfried Häuser⁵, Robert S. Katz⁶, Philip J. Mease⁷, Anthony Russell⁸, I Jon Russell⁹ and Brian Walitt¹⁰, ¹National Data Bank, Wichita, KS, ²Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI, ³Rheumatology, McGill University, Montreal, QC, Canada, ⁴Newton-Wellesley Hospital and Tufts University School of Medicine, Newton, MA, ⁵, ⁶Department of Psychosomatic Medicine and Psychotherapy, Technische Universität München, Munich, Germany, ⁷Rush University Medical Center, Chicago, IL, ⁸Swedish Medical Center and University of Washington, Seattle, WA, ⁹Medicine, University of Alberta, Edmonton, AB, Canada, and ¹⁰National Institutes of Health, National Institute of Nursing Research, Bethesda, DC

**Abstract Number:** 997  
**2016 Revisions to the 2010/2011 Fibromyalgia Diagnostic Criteria**  
Frederick Wolfe¹, Daniel J. Clauw², MaryAnn FitzCharles³, Don Goldenerberg⁴, Winfried Häuser⁵, Robert S. Katz⁶, I Jon Russell⁷, Philip J. Mease⁸, Anthony Russell⁹ and Brian Walitt¹⁰, ¹National Data Bank, Wichita, KS, ²Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI, ³Rheumatology, McGill University, Montreal, QC, Canada, ⁴Newton-Wellesley Hospital and Tufts University School of Medicine, Newton, MA, ⁵, ⁶Department of Psychosomatic Medicine and Psychotherapy, Technische Universität München, Munich, Germany, ⁷Rush University Medical Center, Chicago, IL, ⁸Swedish Medical Center and University of Washington, Seattle, WA, ⁹Medicine, University of Alberta, Edmonton, AB, Canada, and ¹⁰National Institutes of Health, National Institute of Nursing Research, Bethesda, DC

Session: **Innate Immunity and Rheumatic Disease**

**Time:** 4:30 - 6:00 PM  
**Type:** ACR Concurrent Abstract Session

**Abstract Number:** 1007  
**Interferon Regulatory Factor 1 Is the Key Driver of Inflammasome Activity in Systemic Lupus Erythematosus**  
Jianhua Liu¹ and J. Michelle Kahlenberg², ¹Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Internal Medicine, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI

---

**Monday, November 14**

Session: **Antiphospholipid Syndrome - Poster I**

**Time:** 9:00 - 11:00 AM  
**Type:** ACR Poster Session B

**Abstract Number:** 1064  
**Antiphospholipid Syndrome Alliance for Clinical Trials & International Networking Registry Analysis: Direct Oral Anticoagulant Use among Antiphospholipid Syndrome Patients**  
Ozan Unlu¹, Hannah Cohen², Maria Jose Cuadrado³, Paul R. Fortin⁴, Guilherme Ramires de Jesus⁵, Maria Gerosa⁶, Jason S Knight⁷, Vittorio Pengo⁸, Michelle Petri⁹, Esther Rodriguez-Almaraz¹⁰, Stephane Zuliy¹¹,¹², Doruk Erkan¹³ and On Behalf of APS ACTION ¹², ¹Barbara Volcker Center for Women and Rheumatic Diseases, Hospital for Special Surgery, Weill Cornell Medicine, New York, NY, ²University College London, London, United Kingdom, ³Lupus Research Unit, The Rayne Institute, St Thomas' Hospital, London, United Kingdom, ⁴Medicine, CHU de Québec - Université Laval, Quèbec, QC, Canada, ⁵Department of Obstetrics, Universidade do Estado do Rio de Janeiro, Rio de Janeiro, Brazil, ⁶University of Milan, Istituto Ortopedico Gaetano Pini, Milano, Italy, ⁷University of Michigan, Ann Arbor, MI, ⁸Azienda Ospedaliera di Padova, University of Padova, Padova, Italy, ⁹Rheumatology Division, Johns Hopkins University School of Medicine, Baltimore, MD, ¹⁰Servicio De Reumatologia, Hospital 12 De Octubre, Madrid, Spain, ¹¹CHU de Nancy, Regional Competence Centre For Rare Vascular And Systemic Autoimmune Diseases, Vascular Medicine Division, NANCY, France, ¹²Inserm, UMR_S 1116, Nancy, France, ¹³Rheumatology, Hospital for Special Surgery- Weill Cornell Medicine, New York, NY
Session: B Cell Biology and Targets in Autoimmune Disease - Poster I: SLE and Sjögren's
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1084
Antibodies to Native Vimentin in Lupus: Characterization, Isotypes, Origins, and Associations with Other Autoimmune Pathways
Andrew Kinloch1, Yuta Asano1, Rene Bermea2, Kichul Ko2, Carole Henry1, Nirit Mor-Vaknin3, David Markovitz4, Patrick Wilson1 and Marcus R. Clark5, 1Gwen Knapp Center for Lupus and Immunology Research, University of Chicago, Chicago, IL, 2Medicine, University of Chicago, Chicago, IL, 3Infectious Diseases, University of Michigan, Ann Arbor, MI, 4Internal Medicine, University of Michigan, Ann Arbor, MI, 5Rheumatology and Knapp Center for Lupus Research, University of Chicago, Chicago, IL

Session: Cytokines, Mediators, Cell-Cell Adhesion, Cell Trafficking and Angiogenesis - Poster I
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1117
EGCG Down-Regulates TNF-α-Induced Mcl-1 Expression By Modulating Mule/Huwe1, β-TrCP, and USP9X Ubiquitin/De-Ubiquitin Ligases in Rheumatoid Arthritis Synovial Fibroblasts
Nahid Akhtar1, Sadiq Umar2, David Fox3 and Salahuddin Ahmed4, 1Department of Pharmaceutical Sciences, Washington State University, College of Pharmacy, Spokane, WA, 2Department of Pharmaceutical Science, Washington State University, College of Pharmacy, Spokane, WA, 3Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI

Abstract Number: 1130
Aminopeptidase N/CD13 Induces Monocyte Migration in Vitro and In Vivo and Signals through GPCR, Erk1/2, Jnk, Src, and NFxB
Yuxuan Du1, W. Alexander Stinson2, Phillip Campbell1, Rachel Morgan1, Nicholas Lepore1, Ellen Cealey1, Jonatan Hervoso1, Huadong Cui*, David Fox2 and M. Asif Amin*. 1Rheumatology, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, 2Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, 3Internal Medicine, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI

Abstract Number: 1131
Regulation of Rheumatoid Arthritis Synovial Fibroblast Cytokine Production By Inhibitor of DNA Binding-1 Via Crispr/Cas9 Transfection
Ray A. Ohara1, Gautam Edhayan1, Thomas L. Saunders2, Thomas M. Lanigan3, Rachel Morgan1, W. Alexander Stinson4, Phillip L. Campbell5, Jerry Graham6, David A. Fox6 and Jeffrey H. Ruth7, 1Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, 2Molecular Medicine and Genetics, University of Michigan Medical School, Ann Arbor, MI, 3Vector Core, University of Michigan Medical School, Ann Arbor, MI, 4Division of Rheumatology, University of Michigan Medical School, Ann Arbor, MI, 5Division of Rheumatology, University of Michigan Medical School, Ann Arbor, MI, 6Internal Medicine, Division of Rheumatology, University of Michigan Medical School, Ann Arbor, MI

Session: Education - Poster
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1140
The Future of Rheumatology: Pediatric and Adult Fellows-in-Training Results from the 2015 ACR/ARHP Workforce Study
Jonathan S. Hausmann1,2, Seetha Monrad3, Marcia Ditmyer4, Marcy B. Bolster5, Lisa F. Imundo6 and Daniel Battafarano7, 1Rheumatology, Beth Israel Deaconess Medical Center, Boston, MA, 2Rheumatology, Boston Children’s Hospital, Boston, MA, 3Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, 4University of Nevada, Las Vegas, NV, 5Massachusetts General Hospital, Boston, MA, 6Pediatrics, Childrens Hospital of New York, New York, NY, 7Medicine, San Antonio Military Medical Center, San Antonio, TX
Session: Genetics, Genomics and Proteomics - Poster II
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1219
Differential Peripheral Blood DNA Methylation Patterns Are Predictive of Radiographic OA Progression
Matlock A. Jeffries¹, Madison Andrews², Judith A. James³, Mary Beth Humphrey⁴ and Amr H. Sawalha⁵. ¹Rheumatology, University of Oklahoma Health Sciences Center, Oklahoma City, OK, ²Department of Medicine, University of Oklahoma Health Sciences Center, Oklahoma City, OK, ³Arthritis and Clinical Immunology Research Program, Oklahoma Medical Research Foundation, Oklahoma City, OK, ⁴Medicine/Rheumatology, University of Oklahoma Health Sciences Center, Oklahoma City, OK, ⁵Division of Rheumatology, University of Michigan, Ann Arbor, MI

Session: Health Services Research - Poster II
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1228
Prescribing for Children with Rheumatologic Disease: Differences Between Pediatric and Adult Rheumatologists
Heather Van Mater¹, Stephen Balevic², Gary Freed³ and Sarah J. Clark⁴. ¹Pediatrics/Pediatric Rheumatology, Duke University Medical Center, Durham, NC, ²Rheumatology/Pediatric Rheumatology, Duke University Medical Center, Durham, NC, ³University of Michigan Health System, Ann Arbor, MI, ⁴Pediatrics & Communicable Diseases, University of Michigan Health System, Ann Arbor, MI

Session: Healthcare Disparities in Rheumatology - Poster II
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1248
Access to Care: The Patient Perspective from the 2015 ACR/ARHP Workforce Study
Seetha Monrad¹, Lisa Imundo², Daniel Battafarano³ and Marcia Ditmyer⁴. ¹Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, ²Pediatrics, Columbia University, New York, NY, ³Medicine, San Antonio Military Medical Center, San Antonio, TX, ⁴University of Nevada, Las Vegas, NV

Session: Quality Measures and Quality of Care - Poster II
Time: 9:00 - 11:00 AM
Type: ACR Poster Session B

Abstract Number: 1413
Establishing Clinical Severity for Patient Reported Outcomes Measurement Information System Measures in Adult Patients with Rheumatic Diseases
Vivek Nagaraja¹, Constance Mara², Carole V. Dodge³, David Fox⁴, Puja Khanna⁵, Timothy Laing⁶, W Joseph McCune⁶, Rajaie Namasi⁷, Debra Bancroft Rizzo⁸, Kelly Vanoverbeke⁹, Amber Young¹⁰, Maha Almackenzie¹¹ and Dinesh Khanna¹². ¹Department of Medicine [Division of Rheumatology], University of Toledo, Toledo, OH, ²James M. Anderson Center for Health Systems Excellence, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, ³Physical Medicine and Rehabilitation [Occupational Therapy], University of Michigan, Ann Arbor, MI, ⁴Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, ⁵Rheumatology, University of Michigan, Ann Arbor, MI, ⁶Int Med/ Rheum, University of Michigan, Ann Arbor, MI, ⁷Department of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, ⁸University of Michigan, Ann Arbor, MI

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

Abstract Number: 1821
Demethylated CD4+CD28+KIR+CD11ahi T Cells Are Characterized by a Pro-Inflammatory Transcriptome and Interact with Genetic Risk to Predict Disease Activity in Lupus
Paul Repauer¹, Patrick Coit¹, Faith Strickland², Elizabeth Gensterblum³, Mikhail Ognenovski³, Bruce Richardson³ and Amr Sawalha⁴. ¹Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Rheumatology, University of Michigan, Ann Arbor, MI, ³Rheumatology, University of Michigan, Ann Arbor, MI, ⁴Rheumatology, University of Michigan and the Ann Arbor VA, Ann Arbor, MI
**Session: Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics - Poster II**

**Time:** 9:00 - 11:00 AM  
**Type:** ACR Poster Session B

**Abstract Number: 1859**

**Fucosyltransferase-1 Mediated Fucosylation of TGF-βR1 Is Critical to TGF-β Signaling in Scleroderma and in Bleomycin-Induced Fibrosis**

W. Alexander Stinson¹, Pei-Suen Tsou¹,², Yuxuan Du³, Huadong Cui¹, Ellen Cealey², Nicholas Lepore⁴, Ray A. Ohara¹, Gautam Edhayan¹, Sarah Arwanj¹, Rachel Morgan¹, Dinesh Khanna¹²,², David A. Fox¹ and M. Asif Amin⁵, ¹Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, ²University of Michigan Scleroderma Program, Ann Arbor, MI, ³Rheumatology, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, ⁴University of Michigan, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, ⁵Internal Medicine, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI

**Abstract Number: 1880**

**A Large Proportion of Patients in an Early Systemic Sclerosis-Associated Interstitial Lung Disease Cohort Have Coexisting Pulmonary Hypertension**

Amber Young¹, Caitlyn Fisher¹, Rajaie Namasi¹, Holly Wilhalme³ and Dinesh Khanna⁴, ¹Department of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, ³University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, ⁴University of Michigan, Ann Arbor, MI

---

**Session: Vasculitis - Poster II: ANCA-Associated Vasculitis**

**Time:** 9:00 - 11:00 AM  
**Type:** ACR Poster Session B

**Abstract Number: 1947**

**Ocular Manifestations of ANCA-Associated Vasculitis**

Sophie Cai¹², George Papaliodis²³, Leo Lu¹, Hyon K. Choi², Ulrich Specks³, Peter A. Merkel³, Philip Seo³, Robert F. Spiera⁴, Carol A. Langford⁵, Gary S. Hoffman¹¹, Cees G.M. Kallenberg¹², William St Clair¹³, Nadia Tchao¹⁴, Fernando Fervenza⁶, Paul A. Monach¹⁵, W Joseph McCune¹⁶, John H. Stone¹⁷, Eli Miloslavsky¹⁸ and RAVE-ITN and WGET Research Groups, ¹Ophthalmology, Johns Hopkins Wilmer Eye Institute, Baltimore, MD, ²Medicine, Massachusetts General Hospital, Harvard Medical School, Boston, MA, ³Uveitis and Immunology, Massachusetts Eye and Ear, Boston, MA, ⁴Allergy, Immunology, and Rheumatology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, ⁵Rheumatology, Allergy, and Immunology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, ⁶Mayo Clinic, Rochester, MN, ⁷Division of Rheumatology, University of Pennsylvania, Philadelphia, PA, ⁸Medicine, Johns Hopkins University, Baltimore, MD, ⁹Hospital for Special Surgery, Cornell, New York, NY, ¹⁰Rheumatic and Immunologic Diseases, Cleveland Clinic, Cleveland, OH, ¹¹Rheumatology, Cleveland Clinic, Cleveland, OH, ¹²Rheumatology and Clinical Immunology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands, ¹³Rheumatology, Duke University Medical Center, Durham, NC, ¹⁴Immune Tolerance Network, San Francisco, CA, ¹⁵Rheumatology, Boston University School of Medicine, Boston, MA, ¹⁶Int Med/ Rheum, University of Michigan, Ann Arbor, MI, ¹⁷Massachusetts General Hospital Rheumatology Unit, Harvard Medical School, Boston, MA, ¹⁸Division of Rheumatology, Massachusetts General Hospital, Harvard Medical School, Boston, MA

---

**Session: Plenary Sessions II: Discovery 2016**

**Time:** 11:00 AM- 12:30 PM  
**Type:** ACR Plenary Session

**Abstract Number: 1960**

**2015 ACR/ARHP Workforce Study in the U.S.: The Role of Graduate Medical Education (GME) in Adult Rheumatology**

Marcy Bolster¹, Anne R. Bass², Jonathan S. Hausmann³, Marcia Ditmyer⁴, Seetha Monrad⁵ and Daniel Battafarano⁶, ¹Rheumatology, Allergy and Immunology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, ²Rheumatology, Hospital for Special Surgery Weill Cornell Medical College, New York, NY, ³Rheumatology, Beth Israel Deaconess Medical Center, Boston, MA, ⁴Pharmacogenomic Research and Development Center, Las Vegas, NV, ⁵Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, ⁶Medicine, San Antonio Military Medical Center, San Antonio, TX
### Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics II

**Abstract Number: 2017**

**Performance of Modified Rodnan Skin Score in Early Diffuse Cutaneous Scleroderma-Analysis from 4 International Cohorts**

Dinesh Khanna¹, Susanna Proudman²,³, Tracy M. Frech⁴, Svetlana Nityyanova⁵, Robyn T. Domsic⁶, Veronica J. Berrocal⁷, Wendy Stevens⁸, Mandana Nikpour⁹ and Christopher P. Denton¹⁰.¹ University of Michigan, Ann Arbor, MI, ²Rheumatology Unit, Royal Adelaide Hospital, Adelaide, Australia, ³Discipline of Medicine, University of Adelaide, Adelaide, Australia, ⁴Div of Rheumatology, University of Utah Medical Ctr, Salt Lake City, UT, ⁵Centre for Rheumatology and Connective Tissue Diseases, University College London Medical School, Royal Free Hospital, London, United Kingdom, ⁶Medicine - Rheumatology, University of Pittsburgh, Pittsburgh, PA, ⁷Div of Rheumatology, University of Michigan, Ann Arbor, MI, ⁸Rheumatology, St. Vincent's Hospital, Melbourne, Australia, ⁹Melbourne University, Melbourne, Australia, ¹⁰Centre of Rheumatology and Connective Tissue Diseases, University College London, London, United Kingdom

### Antiphospholipid Syndrome

**Identification of Novel Genetic Susceptibility Loci in Primary Antiphospholipid Syndrome**

Elizabeth Gensterblum¹, Travis Hughes², Manuel Martínez-Bueno³, Maria Orietta Borghi⁴, Guillermo J. Pons-Estel⁵, Gerard Espinosa⁶, Alexandra Zhemakova⁷, Cisca Wijmenga⁸, Ricard Cervera⁹, Pier Luigi Meroni¹⁰, Marta Alarcón-Riquelme¹²,¹⁰ and Amr Sawalha¹,²

¹Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Division of Health Sciences and Technology, Harvard Medical School, Boston, MA, ³Center for Genomics and Oncological Research (GENYO), Pfizer-University of Granada-Andalusian Regional Government, Health Sciences Technology Park, Granada, Spain, ⁴University of Milan, IRCCS Istituto Auxologico Italiano, Milan, Italy, ⁵Department of Autoimmune Diseases, Institut Clinic de Medicina i Dermatologia, Hospital Clinic de Barcelona, Barcelona, Spain, ⁶Autoimmune Diseases Department. Hospital Clinic de Barcelona, Barcelona, Spain, ⁷Rheumatology and Clinical Immunology, University of Groningen, University Medical Center, Groningen, Netherlands, ⁸Genetics, University Medical Hospital Groningen, University of Groningen, Groningen, Netherlands, ⁹Hospital G.Pini, University of Milano, IRCSS Instute Auxologico Italiano, Milan, Italy, ¹⁰Unit for Chronic Inflammatory Diseases, Institute for Environmental Medicine, Karolinska Institutet, Stockholm, Sweden

**Antiphospholipid Syndrome Neutrophils Are Characterized By Overexpression of P-Selectin Glycoprotein Ligand 1, a Potential Therapeutic Target**

Jason S Knight¹, Patrick S. Coit¹, He Meng¹, Srilakshmi Yalavarthi¹, Paul Renauer¹, Robert C Greem¹, Levi F Mazza¹, Hui Wang², Daniel T Eitzman² and Amr H Sawalha¹.¹ Division of Rheumatology, University of Michigan, Ann Arbor, MI, ²Division of Cardiovascular Medicine, University of Michigan, Ann Arbor, MI

### ARHP IV: Clinical Practice, Patient Care and Health Services

**Minding the Gap: the Use of Nurse Practitioners and Physician Assistants in U.S. Rheumatology Practice to Affect Rheumatology Workforce Shortages**

Benjamin J Smith¹, Marcy B. Bolster², Marcia Ditmyer³, Karla B. Jones⁴, Seetha Monrad⁵ and Daniel Battafarano⁶.¹ Rheumatology, McIntosh Clinic, P.C., Thomasville, GA, ²Massachusetts General Hospital, Boston, MA, ³University of Nevada, Las Vegas, NV, ⁴Rheumatology, Nationwide Children's, Columbus, OH, ⁵Medicine, University of Michigan, Ann Arbor, MI, ⁶Medicine, San Antonio Military Medical Center, San Antonio, TX

### Systemic Lupus Erythematosus – Animal Models

**TLR-7-Mediated Lupus Nephritis Flares Are Independent of Type I Interferon Signaling**

Sonya Wolf¹, Tamra J. Reed², Chaim O. Jacob³ and J. Michelle Kahlenberg⁴.¹ Internal Medicine, Division of Rheumatology, University of Michigan Medical School, Ann Arbor, MI, ²Internal Medicine, Rheumatology, University of Michigan, Ann Arbor, MI, ³Medicine/Div of Rheumatology, USC School of Medicine, Los Angeles, CA, ⁴Internal Medicine, Division of Rheumatology, Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI
Abstract Number: 2058
Ectonucleotidase-Mediated Protection of Lupus Mice from Exaggerated Immune Responses and Arterial Vasculopathy
Jason S Knight1, Levi F Mazza1, Srilakshmi Yalavarthi1, Yogen Kanthi2 and David J Pinsky2, 1Division of Rheumatology, University of Michigan, Ann Arbor, MI, 2Division of Cardiovascular Medicine, University of Michigan, Ann Arbor, MI

Tuesday, November 15

Session: Fibromyalgia, Soft Tissue Disorders, Regional and Specific Clinical Pain Syndromes - Poster II: Clinical Focus
Time: 9:00 - 11:00 AM
Type: ACR Poster Session C

Abstract Number: 2224
Influence of Caffeine on Opioid Analgesics in Fibromyalgia
J. Ryan Scott1, Daniel J. Clauw2, Chad M. Brummett1, Richard E. Harris1, Afton L. Hassett1 and 30203, 1Anesthesiology, University of Michigan, Ann Arbor, MI, 2Chronic Pain & Fatigue Research Center, University of Michigan, Ann Arbor, MI, 3Department of Anesthesiology, University of Michigan, Ann Arbor, MI

Session: Systemic Lupus Erythematosus – Clinical Aspects and Treatment - Poster III: Biomarkers and Nephritis
Time: 9:00 - 11:00 AM
Type: ACR Poster Session C

Abstract Number: 2853
Neutrophilia in Systemic Lupus Erythematosus as a Potential Indicator of Disease Activity
Emily E. Lewis1, W Joseph McCune2 and Jason S Knight3, 1University of Michigan, Ann Arbor, MI, 2Int Med/ Rheum, University of Michigan, Ann Arbor, MI, 3Division of Rheumatology, University of Michigan, Ann Arbor, MI

Session: Systemic Lupus Erythematosus – Human Etiology and Pathogenesis - Poster II
Time: 9:00 - 11:00 AM
Type: ACR Poster Session C

Abstract Number: 2866
Lupus HDL Induces Pro-Inflammatory Responses in Macrophages By Binding LOX1Rand Failing to Promote ATF3 Activity
Carolyne K. Smith1, Nickie Seto1, Anuradha Vivekanandang-Gill2, Wenmin Yuan3, Martin Playford4, Zerai G. Manna5, Sarfaraz A. Hasni6, Rui Kua7, Nehal N. Mehta8, Anna Schwendeman9, Subramaniam Pennathur10 and Mariana Kaplan11, 1Systemic Autoimmunity Branch, National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 2Internal Medicine/Nephrology, University of Michigan Nephrology, Ann Arbor, MI, 3Department of Medicinal Chemistry and the Biointerfaces Institute, University of Michigan, Ann Arbor, MI, 4NHLBI, National Institutes of Health, Bethesda, MD, 5Internal Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 6Lupus Clinical Research Program, Office of the Clinical Director, NIAMS/NIH, Bethesda, MD, 7NIAMS/NIH, Bethesda, MD

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

Abstract Number: 2890
Feasibility of Same Day Adipose Tissue Harvest, Cell Processing and Subcutaneous Delivery of Adipose Derived Regenerative Cells into Fingers of Scleroderma Patients within a Randomized Double Blind Clinical Trial
Dinesh Khanna1, Maureen D Mayes2, Robert W. Simms3, Virginia D. Steen4, Steven Cohen5, Paul Caldron6, Richard Martin7, Suzanne Kafaja8, Ankoor Shah9, Shadi Shahouri10, Robert F. Spiera11, John Ervin12, Vivien Hsu13, Robyn T. Domsic14, Laura K. Hummers15, John Yocum16, Soumya Chatterjee17, Chris T. Derk18, John Varga19, Mark Adams20, Eve M. Taylor21, Steven Kesten21 and Daniel E. Furst22, 1University of Michigan, Ann Arbor, MI, 2Rheumatology, University of Texas Medical School at Houston, Houston, TX, 3Rheumatology, Boston University School of Medicine, Boston, MA, 4Rheumatology, Georgetown University Medical Center, Washington, DC, 5FacesPlus, San Diego, CA, 6Arizona Arthritis and Rheumatology Associates, Phoenix, AZ, 7West Michigan Rheumatology, Grand Rapids, MI, 8Rheumatology, University of California Los Angeles, Los Angeles, CA, 9Medicine, Duke University
Abstract Number: 2898

Anti-Reflux Medications in Diffuse Cutaneous Systemic Sclerosis: Is Empiric Use of Proton Pump Inhibitors Supported?

Tracy M. Frech1, Ami A. Shah2, Monique Hinchcliff3, Flavia V. Castelino4, Shervin Assassi5, Elana J. Bernstein6, Robyn T. Domsic7, Jessica K. Gordon8, Victoria K. Shanmugam9,10, Virginia D. Steen11, Maureen Murtaugh12, Bernie LaSalle13, Dinesh Khanna14, and Faye N. Hant15.

Division of Rheumatology, University of Utah, Salt Lake City, UT, 1Rheumatology, Johns Hopkins University School of Medicine, Baltimore, MD, 2Northwestern University, Feinberg School of Medicine Scleroderma Program, Chicago, IL, 3Rheumatology, Allergy, Immunology, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 4Department of Internal Medicine - Rheumatology, University of Texas-McGovern Medical School, Houston, TX, 5Department of Medicine, Columbia University, New York, NY, 6Rheumatology - Rheumatology, University of Pittsburgh, Pittsburgh, PA, 7Rheumatology, Hospital for Special Surgery, New York, NY, 8Rheumatology, George Washington University, Great Falls, VA, 9Division of Rheumatology, The George Washington University, Washington, DC, 10Rheumatology, Georgetown University Medical Center, Washington, DC, 11University of Utah, Salt Lake, UT, 12University of Utah, Salt Lake City, UT, 13University of Michigan, Ann Arbor, MI, 14Medicine/Rheumatology & Immunology, Medical University of South Carolina, Charleston, SC

Abstract Number: 2902

Preliminary Evaluation of Gastroesophageal Reflex Disease Outcome Measures in Scleroderma–Scleroderma Clinical Trials Consortium Gastrointestinal Working Group

ZsuZsanna McMahan1, Tracy M. Frech2, Guya Piemonte3, Marco Matucci-Cerinic4, Susanna Proudam5,6, Veronica J. Berrocal7, Ron Hays8 and Dinesh Khanna9.

Department of Internal Medicine, Johns Hopkins University, Baltimore, MD, 2Division of Rheumatology, University of Utah, Salt Lake City, UT, 3University of Florence, Florence, Italy, 4Department of Medicine, Division of Rheumatology, University of Florence, Florence, Italy, 5Rheumatology Unit, Royal Adelaide Hospital, Adelaide, Australia, 6Discipline of Medicine, University of Adelaide, Adelaide, Australia, 7Div of Rheumatology, University of Michigan, Ann Arbor, MI, 8UCLA, Los Angeles, CA, 9University of Michigan, Ann Arbor, MI

Abstract Number: 2909

Attitudes Toward Patient-Reported Outcome Instruments for the Assessment of Raynaud's Phenomenon in Systemic Sclerosis


Department of Pharmacy and Pharmacology, University of Bath, Bath, United Kingdom, 2Department of Rheumatology, Royal National Hospital for Rheumatic Diseases, Bath, United Kingdom, 3Internal Medicine, Salt Lake City VAMC, Salt Lake, UT, 4Internal Medicine-Division of Rheumatology, University of Utah School of Medicine, SLC, UT, 5Centre for Musculoskeletal Research, The University of Manchester, Manchester, United Kingdom, 6Rheumatology, Hospital for Special Surgery, New York, NY, 7Medicine - Rheumatology, Univ of Pittsburgh Med Ctr, Pittsburgh, PA, 8Department of Rheumatology, Istituto Gaetano Pini, University of Milano, Italy, Milano, Italy, 9Rheumatology, Royal National Hospital for Rheumatic Diseases, Upper Borough Walls, United Kingdom, 10Medicine, Division of Rheumatology, Toronto Western Hospital, University Health Network Pulmonary Hypertension Programme, Toronto General Hospital, Mount Sinai Hospital and University of Toronto, Toronto, ON, Canada, 11Department of Medicine, McGill University and Jewish General Hospital, Montreal, QC, Canada, 12Rheumatology, University California San Francisco, San Francisco, CA, 13Rheumatology, University College London Medical School, Royal Free Hospital, London, UK, London, United Kingdom, 14Department of Medicine, Division of Rheumatology, University of Florence, Italy, Florence, Italy, 15Rheumatology, University of Toledo Medical Center., Toledo, OH, 16Rheumatology Section, Rheumatology Unit, Internal Medicine Service, Hospital Italiano de Buenos Aires, Instituto Universitario Hospital Italiano de Buenos Aires, and Fundacion PM Catoggio, Buenos Aires, Argentina, 17Department of Medicine (St Vincent's Hospital), The University of Melbourne, Melbourne, Australia, 18Rheumatology and Immunology, Duke University Medical Center, Durham, NC, 19Monsignor Roney Bldg/Rheum, University of Western Ontario, St Joseph Health Care, London, ON, Canada, 20Division of Rheumatology, University of Michigan Medical School, Ann Arbor, MI, 21Centre for Musculoskeletal Research, University of Manchester, Manchester Academic Health Science Centre, Manchester, United Kingdom

Abstract Number: 2912

Performance of the Patient-Reported Outcomes Measurement Information System (PROMIS) 29 in Systemic Sclerosis-Associated Interstitial Lung Disease (SSc-ILD)

Caitlyn Fisher2, Rajaei Namas3, Amber Young4, Holly Wilhalme5 and Dinesh Khanna5.

1Cognitive Science / Creative Writing, Beloit College, Beloit, WI, 2Department of Internal Medicine, Division of Rheumatology, University of Michigan, Ann Arbor, MI, 3Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, 4University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 5University of Michigan, Ann Arbor, MI
**Session: Translational Therapeutics, University of Pennsylvania, Philadelphia, PA**

**Division of Rheumatology, University of Pennsylvania, Ann Arbor, MI, University of South Florida, Tampa, FL, University of Munich, Munich, Germany, Systems Pharmacology and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, Division of Nephrology, University of Michigan, Greene, Clemens Cohen, Jeffrey Krischer, Matthias Kretzler, Peter A. Merkel and Felix H. Eichinger, 1National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 2Division of Nephrology, University of Michigan, Ann Arbor, MI, 3University of South Florida, Tampa, FL, 4University of Munich, Munich, Germany, 5Systems Pharmacology and Translational Therapeutics, University of Pennsylvania, Philadelphia, PA, 6Division of Rheumatology, University of Pennsylvania, Philadelphia, PA

**Abstract Number: 2942**

**Sequencing of 16S RNA Reveals a Distinct Salivary Microbiome Signature in Behçet’s Disease**

**Patrick Coit, Gorca Mumcu, Filiz Ture Ozdemir, Ali Ugur Unal, Ugur Alpar, Nigihan Bostanci, Tulin Ergun, Haner Direskeneli and Amr Sawalha, 1Division of Rheumatology, University of Michigan, Ann Arbor, MI, 2Department of Health Management, Marmara University, Faculty of Health Sciences, Istanbul, Turkey, 3Marmara University, School of Medicine, Department of Immunology, Istanbul, Turkey, 4Department of Rheumatology, Marmara University Faculty of Medicine, Istanbul, Turkey, 5Faculty of Dentistry, Marmara University, Istanbul, Turkey, 6Division of Periodontology, Department of Dental Medicine, Karolinska Institute, Stockholm, Sweden, 7Department of Dermatology, Faculty of Medicine, Marmara University, Istanbul, Turkey

**Session: Rheumatoid Arthritis – Human Etiology and Pathogenesis I**

**Time: 2:30 - 4:00 PM**

**Type: ACR Concurrent Abstract Session**

**Abstract Number: 3020**

**Citrullination of Inhibitor of DNA Binding-1 at Specific Locations Leads to Autoantigenicity in Rheumatoid Arthritis**

**Ray A. Ohara, Henriette A. Remmer, Phillip L. Campbell, David A. Fox and Jeffrey H. Ruth, 1Division of Rheumatology, University of Michigan Medical Center, Ann Arbor, MI, 2Department of Biological Chemistry, University of Michigan Medical School, Ann Arbor, MI, 3Internal Medicine, Division of Rheumatology, University of Michigan Medical School, Ann Arbor, MI

**Session: Vasculitis III: Pathogenic Mechanisms**

**Time: 2:30 - 4:00 PM**

**Type: ACR Concurrent Abstract Session**

**Abstract Number: 3043**

**Dense Genotyping of Immune Related Loci in a Multi-Ethnic Behçet’s Disease Cohort Identifies Genetic Associations in a Long Noncoding RNA Near QSOX2, RASIP1/FUT2, and IL12A-AS1**

**Paul Renauer, Patrick Coit, Travis Hughes, Mikhail Ognevovski, Adam Adler, Lourdes Ortiz-Fernández, Vuslat Yilmaz, Kenan Aksu, Nursen Duzgun, Gokhan Keser, Ayse Cefe, Ayten Yazici, Andac Ergen, Erkan Alpsoy, Carlo Salvarani, Bruno Casali, Ina Koetter, Alexandra Zhemakova, Csija Wijmenga, Fusio Takeuchi, Shinji Hanhara, Toshikatsu Kaburaki, Yeong Wook Song, Francisco David Carmona, Marta E. Alarcon Riquelme, Javier Martin, Güher Saruhan-Direskeneli, Maria Francisca Gonzalez Escriberno, Haner Direskeneli and Amr H. Sawalha, 1Division of Rheumatology, University of Michigan, Ann Arbor, MI, 2Division of Health Sciences and Technology, Harvard Medical School, Boston, MA, 3Oklahoma Medical Research Foundation, OK, 4Immunology department, Hospital Universitario Virgen del Rocio, Sevilla, Spain, 5Istanbul University, Istanbul Faculty of Medicine, Department of Physiology, Istanbul, Turkey, 6Internal Medicine Division of Rheumatology, Ege University Medical Faculty, Izmir, Turkey, 7Internal Medicine, Rheumatology Department, Ankara University School of Medicine, Ankara, Turkey, 8Rheumatology, Ege University Medical Faculty, Izmir, Turkey, 9Rheumatology, Kocaeli University Faculty of Medicine, Kocaeli, Turkey, 10Rheumatology, Kocaeli University School of Medicine, Kocaeli, Turkey, 11Okmeydany Research and Education Hospital, Istanbul, Turkey, 12Department of Dermatology, Akdeniz University School of Medicine, Antalya, Turkey, 13Rheumatology, Azienda Ospedaliera ASMN, Istituto di Ricovero e Cura a CarattereScientifico, Reggio Emilia, Italy, 14Molecular Biology Laboratory, Azienda Ospedaliera Arcispedale Santa Maria Nuova, Istituto di Ricovero e Cura a CarattereScientifico, Reggio Emilia, Italy, 15Internal Medicine IV Rheumatology, Asklepios Klinik Altona, Hamburg, Germany, 16Rheumatology and Clinical Immunology, University of Groningen, University Medical Center, Groningen, Netherlands, 17Genetics, University Medical Hospital Groningen, University of Groningen, Groningen, Netherlands, 18#504 Lab/Dep of Internal Medicine (Allergy & Rheumatology), Faculty of Medicine, University of Toyko, Tokyo, Japan, 19Division of Anthropology, School of Biological Science, The University of Tokyo Graduate School of Science, Tokyo, Japan, 20Ophthalmology, The University of Tokyo School of Medicine, Bunkyo-ku, Japan, 21Department of Molecular Medicine and Biopharmaceutical Sciences, Graduate School of Convergence Science and Technology, Seoul National University, Seoul, South Korea, 22Instituto de Parasitologia y Biomedicina López-Neyra, IPBLN-CSIC, PTS-Granada, Granada, Spain, 23Centro de Genomica e Investigacion Oncologica, Pfizer-University of Granada-Junta de Andalucia, Granada, Spain, 24Department of Physiology, Istanbul Faculty of Medicine, Istanbul University, Istanbul, Turkey, 25Hospital Universitario Virgen del Rocio (IBIS,CSIC,US), Sevilla, Spain, 26Rheumatology, Marmara University, School of Medicine, Istanbul, Turkey

**Abstract Number: 3045**

**Immunometabolism in ANCA-Associated Glomerulonephritis**

**Peter C. Grayson, Sean Eddy, Vijl Nair, Hemang Parikh, Maja Lindenmeyer, Laura Mariani, Huateng Huang, Wenjun Ju, Casey Greene, Clemens Cohen, Jeffrey Krischer, Matthias Kretzler, Peter A. Merkel and Felix H. Eichinger, 1National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 2Division of Nephrology, University of Michigan, Ann Arbor, MI, 3University of South Florida, Tampa, FL, 4University of Munich, Munich, Germany, 5Systems Pharmacology and Translational Therapeutics, University of Pennsylvania, Philadelphia, PA, 6Division of Rheumatology, University of Pennsylvania, Philadelphia, PA
Abstract Number: 3046
Inflammatory Pathways as Shared Molecular Targets Across ANCA-Associated Vasculitis and Nephrotic Syndrome
Sean Eddy1, Viji Nair1, Hemang Parikh2, Maja Lindenmeyer3, Laura Mariani1, Felix H. Eichinger1, Huateng Huang1, Wenjun Ju2, Casey Greene3, Peter C. Grayson4, Clemens Cohen5, Jeffrey Krischer6, Peter A. Merkel7 and Matthias Kretzler1, 1Division of Nephrology, University of Michigan, Ann Arbor, MI, 2University of South Florida, Tampa, FL, 3University of Munich, Munich, Germany, 4Systems Pharmacology and Translational Therapeutics, University of Pennsylvania, Philadelphia, PA, 5National Institute of Arthritis and Musculoskeletal and Skin Diseases, National Institutes of Health, Bethesda, MD, 6Division of Rheumatology, University of Pennsylvania, Philadelphia, PA

Session: Education
Time: 4:30 - 6:00 PM
Type: ACR Concurrent Abstract Session

Abstract Number: 3061
Future Challenges in Pediatric Rheumatology: The Role of Graduate Medical Education (GME)
Lisa Imundo1, Marcy B. Bolster2, Seetha Monrad3, Daniel Battafarano4, Marisa Klein-Gitelman5, Jonathan S. Hausmann6 and Marcia Ditmyer7, 1Pediatrics, Columbia University, New York, NY, 2Massachusetts General Hospital, Boston, MA, 3Internal Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, 4Medicine, San Antonio Military Medical Center, San Antonio, TX, 5Pediatrics, Northwestern University, Chicago, IL, 6Rheumatology, Beth Israel Deaconess Medical Center, Boston, MA, 7Academy for Academic Research, Las Vegas, NV

Wednesday, November 16

Session: ACR/ARHP Combined Abstract Session: Pediatric Rheumatology
Time: 9:00 - 10:30 AM
Type: ACR Concurrent Abstract Session

Abstract Number: 3115
Reconsidering the Juvenile Idiopathic Arthritis Core Set: How Patients and Caregivers Define Disease Activity
Jennifer R. Horonjeff1, Susan Thornhill2, Daniel B. Horton3, Jennifer N. Stinson4, Anjali Fortna5, Stephanie Luca6, Arlene Vinci7, Laura C. Marrow8, Emily L. Creek9, Meredith Riebschleger10, Alessandro Consolaro11, Jane Munro12, Vivek Bingham III13 and Esi Morgan14, 1Rheumatology, Columbia University Medical Center, New York, NY, 2Thornhill Associates, Hermosa Beach, CA, 3Pediatrics, Division of Pediatric Rheumatology, Rutgers Robert Wood Johnson Medical School, Rutgers Biomedical and Health Sciences, New Brunswick, NJ, 4Anesthesia and Pain Medicine, The Hospital for Sick Children, Toronto, ON, Canada, 5Columbia University Medical Center, New York, NY, 6The Hospital for Sick Children, Toronto, ON, Canada, 7Consumer Health, Arthritis Foundation, Atlanta, GA, 8Pediatric Rheumatology & Health Services Research, University of Michigan, Ann Arbor, MI, 9Pediatrics II - Reumatologia, PRINTO, Istituto Giannina Gaslini, Genoa, Italy, 10Rheumatology, Royal Children's Hospital, Parkville, Australia, 11Stanford University School of Medicine, Palo Alto, CA, 12Divisions of Rheumatology and Allergy, Department of Medicine, Johns Hopkins University, Johns Hopkins University, Baltimore, MD, 13Pediatric Rheumatology, Cincinnati Children's Hospital, Cincinnati, OH

Session: Metabolic and Crystal Arthropathies II: Clinical Practice
Time: 9:00 - 10:30 AM
Type: ACR Concurrent Abstract Session

Abstract Number: 3130
Development and Pilot Testing of an Online Educational Tool for Gout Patients — Mygoutcare®
Puja Khanna1, Aaron Rankin2, Veronica Berrocal3, Larry An4 and Dinesh Khanna5, 1Rheumatology, University of Michigan, Ann Arbor, MI, 2Medicine Rheumatology, University of Michigan, Ann Arbor, MI, 3Biostatistics, University of Michigan, Ann Arbor, MI, 4Medicine, University of Michigan, Ann Arbor, MI, 5University of Michigan, Ann Arbor, MI

Session: Systemic Lupus Erythematosus – Human Etiology and Pathogenesis II
Time: 11:00 AM- 12:30 PM
Type: ACR Concurrent Abstract Session

Abstract Number: 3240
Interferon Kappa Is a Novel Type I IFN That Drives Cutaneous Inflammation in Systemic Lupus
Session: **Systemic Sclerosis, Fibrosing Syndromes, and Raynaud’s – Clinical Aspects and Therapeutics III**

**Time:** 11:00 AM - 12:30 PM  
**Type:** ACR Concurrent Abstract Session

**Abstract Number:** 3245  
**Surfactant Protein D and Krebs Von Den Lungen-6 Predict Severity of Systemic Sclerosis-Related Interstitial Lung Disease in Two Independent Cohorts**

Elizabeth R. Volkman1, Donald P. Tashkin2, Faye N. Hant3, Galina S. Bogatkevich4, Michael Roth5, Kim Hyun6, Jonathan Goldin1, Tanjina Akter4, Holly Wilhalme4, Chi-hong Tseng6, Shervin Assassi8, Dinesh Khanna8, Philip J. Clements3, Daniel E. Furst1, Robert Elashoff10 and Richard Silver11, 1University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 2David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 3Medicine/Rheumatology, University of Michigan, Ann Arbor, MI, 4Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, 5David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 6Radiology, University of California, Los Angeles, Los Angeles, CA, 7Medicine, University of California, Los Angeles, Los Angeles, CA, 8Department of Rheumatology, Medical University of South Carolina, Charleston, SC, 9Department of Internal Medicine - Rheumatology, University of Texas-McGovern Medical School, Houston, TX, 10Biomathematics, University of California, Los Angeles, Los Angeles, CA, 11Division of Rheumatology and Immunology, Medical University of South Carolina, Charleston, SC

**Abstract Number:** 3248  
**Efficacy of Mycophenolate Mofetil and Oral Cyclophosphamide on Skin Thickness: Post-Hoc Analyses from the Scleroderma Lung Study I and II**

Rajaei Namas1,2, Donald P. Tashkin1, Holly Wilhalme4, Daniel E. Furst5, Chi-hong Tseng6, Michael Roth5, Suzanne Kafaja7, Elizabeth R. Volkman8, Philip J. Clements8 and Dinesh Khanna8, 1Division of Rheumatology, University of Michigan, Ann Arbor, MI, 2Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, 3David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 4University of California, Los Angeles, Los Angeles, CA, 5David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 6Radiology, University of California, Los Angeles, Los Angeles, CA, 7Medicine, University of California, Los Angeles, Los Angeles, CA, 8Department of Rheumatology, Medical University of South Carolina, Charleston, SC, 9Biomathematics, University of California, Los Angeles, Los Angeles, CA, 10Biostatistics, University of California, Los Angeles, Los Angeles, CA, 11Division of Rheumatology and Immunology, University of California Los Angeles, Los Angeles, CA, 12Division of Rheumatology, David Geffen School of Medicine, Los Angeles, CA

**Abstract Number:** 3249  
**Improvement in Cough and Cough-Related Quality of Life in Participants Undergoing Treatment for Systemic Sclerosis-Related Interstitial Lung Disease**

Elizabeth R. Volkman1, Dinesh Khanna2, Chi-hong Tseng6, Robert Elashoff6, Bingling Wang5, Michael Roth3, Philip J. Clements3, Daniel E. Furst1, Arthur Theodore and Donald P. Tashkin2, 1University of California, Los Angeles, David Geffen School of Medicine, Los Angeles, CA, 2Medicine, University of California, Los Angeles, Los Angeles, CA, 3Biostatistics, University of California, Los Angeles, Los Angeles, CA, 4Department of Medicine [Division of Rheumatology], University of Michigan, Ann Arbor, MI, 5David Geffen School of Medicine, University of California, Los Angeles, Los Angeles, CA, 6Radiology, University of California, Los Angeles, Los Angeles, CA, 7Medicine, University of California, Los Angeles, Los Angeles, CA, 8Department of Internal Medicine - Rheumatology, University of Texas-McGovern Medical School, Houston, TX, 9Biomathematics, University of California, Los Angeles, Los Angeles, CA, 10Biostatistics, University of California, Los Angeles, Los Angeles, CA, 11Division of Rheumatology and Immunology, University of California Los Angeles, Los Angeles, CA, 12Division of Rheumatology, David Geffen School of Medicine, Los Angeles, CA

Session: **Vasculitis IV: Diagnosis and Assessment of Disease Activity**

**Time:** 9:00 - 10:30 AM  
**Type:** ACR Concurrent Abstract Session

**Abstract Number:** 3181  
**The Utility of Urinalysis in Determining the Risk of Renal Relapse in ANCA-Associated Vasculitis**

Rennie L. Rhee1, John C. Davis2, Linna Ding3, Fernando Fervenza4, Gary S. Hoffman5, Cees G.M. Kallenberg6, Carol A. Langford7, W Joseph McCune1, Paul A. Monach6, Philip Seo10, Robert F. Spiera11, Eugene William St.Clair12, Ulrich Specks8, John H. Stone13 and Rennie L. Rhee, 1Division of Rheumatology, University of Pennsylvania, Perelman School of Med, Philadelphia, PA, 2Baxalta, Cambridge, MA, 3NIH, Bethesda, MD, 4Mayo Clinic, Rochester, MN, 5Rheumatology, Cleveland Clinic, Cleveland, OH, 6Rheumatology and Clinical Immunology, University of Groningen, University Medical Center Groningen, Groningen, Netherlands, 7Rheumatic and Immunologic Diseases, Cleveland Clinic, Cleveland, OH, 8Int Med/ Rheum, University of Michigan, Ann Arbor, MI, 9Rheumatology, Boston University School of Medicine, Boston, MA, 10Medicine, Johns Hopkins University, Baltimore, MD, 11Hospital for Special Surgery, Cornell, New York, NY, 12Rheumatology and Immunology, Duke University, Durham, NC, 13Massachusetts General Hospital Rheumatology Unit, Harvard Medical School, Boston, MA, 14Division of Rheumatology, Univ of Pennsylvania; Perelman School of Med, Philadelphia, PA