Wisconsin Rheumatology Association
2017 ANNUAL MEETING
MARCH 17 – 18, 2017
The American Club Resort | Kohler, Wisconsin

PROGRAM BOOK

To access the WRA presentations, please scan the QR code or go to wi-rheum.org/2017Presentations
Colleagues:

Welcome to the Annual Scientific Meeting of the Wisconsin Rheumatology Association at the American Club in Kohler, Wisconsin. Once again, we have a stellar array of speakers lined up, covering scientific topics that are changing rheumatology practice, and the advocacy sessions will keep you up-to-the-minute on important aspects of State and Federal health care policies. There is sure to be something of interest for everyone at this year’s meeting. Included in this year’s scientific and clinical program will be talks by experts on the amazing new genetic engineering technology known as CRISPR, the very latest on advances in rheumatoid arthritis therapy, an update on biosimilars, topics in pediatric rheumatology, the rapidly emerging and extremely interesting science of the role of the microbiome in autoimmune disorders, and a special lecture by a person who spent 10 years as a provider and then 10 years working for a health insurance payer. She will tell you how to get what you need from insurance payers by simply using the right terminology and phraseology. Every provider needs to hear this lecture.

I encourage all of you to join the Wisconsin Rheumatology Association, which has a one-time life membership fee of $75, without annual dues. Doctors, nurses, trainees, physician assistants, and any other provider who is interested in the delivery of excellent rheumatology care, are encouraged to join the Wisconsin Rheumatology Association. I guarantee that clinic staff and providers at all levels of training will learn something that will help them improve the quality of care they deliver.

I look forward to seeing you at the meeting!

Best Regards,

Daniel G. Malone, MD, RMSK, FACR
President of the Wisconsin Rheumatology Association
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Mission Statement
The Wisconsin Rheumatology Association (WRA) is an association of physicians, health professionals, and scientists who advance the practice of rheumatology through programs of education, research, advocacy and practice support. WRA fosters excellence in the care of people with or at risk for arthritis and rheumatic and musculoskeletal diseases.

Disclaimer Statement
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Filming/Photography Statement
No attendee/visitor at the WRA 2017 Annual Meeting may record, film, tape, photograph, interview, or use any other such media during any presentation, display, or exhibit without the express, advance approval of the WRA Executive Director. This policy applies to all WRA members, non-members, guests, and exhibitors, as well as members of the print, online or broadcast media.
Educational Needs
The scientific program of the 2017 meeting of the Wisconsin Rheumatology Association is intended to educate our members on recent scientific advances in rheumatologic disorders. These scientific lectures include sessions regarding the intestinal microbiome and its relationship to immune activity, the latest basic and clinical science in giant cell arthritis, an update on biosimilar drugs in the U.S., a session dealing with drugs that will be released in the next several years for rheumatoid arthritis, pediatric rheumatology and autoimmune eye disease.

These sessions will cover several areas of ongoing scientific advancement in this field of rheumatology. They are intended to educate our members and give them more updated knowledge so they can deliver state-of-the-art care to their patients. Advances in these areas in rheumatology are moving quickly, and it is difficult for practicing rheumatologists to keep up with the latest science. These sessions will serve to provide the needed updates in these arenas.

Educational Objectives
At the conclusion of the 2017 WRA Annual Meeting attendees should be able to:
1. Differentiate the subtypes and treatments of Juvenile Idiopathic Arthritis.
2. Review some of the new findings of genetic causes of inflammatory disorders.
3. Identify the various ocular inflammation that occurs in many patients with systemic rheumatic disease.
4. Identify the current development of Biosimilars and their use approved by regulatory agencies.
5. Identify legislative and regulatory initiatives currently before Congress and federal agencies, and describe how developments in federal health policy may impact rheumatology practice in 2017.
6. Identify new requirements for Medicare payment under the Medicare Access and CHIP Reauthorization Act (MACRA).
7. Describe tools and best practices that can help rheumatologists achieve maximum payments under the new Medicare payment system.
8. Differentiate the various forms of vasculitis.
9. Distinguish therapeutic options for different types of vasculitis.
10. Express the usefulness of biomarkers in diagnosing and managing vasculitis.
11. Compare abnormal immune functions in different types of vasculitis.
13. Discuss the optimal use of methotrexate in the management of rheumatoid arthritis.
14. Discuss when and how to taper treatment of rheumatoid arthritis when a patient is in remission or low disease activity state.
15. Describe the potential role of microbes in the development of arthritis.
16. Describe the current status of research on the role of the human microbiome in arthritis.
17. Discuss the potential for arthritis treatments that target the microbiome.

Accreditation
This activity has been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the American College of Surgeons and the Wisconsin Rheumatology Association. The American College of Surgeons is accredited by the ACCME to provide continuing medical education for physicians.

AMA PRA Category 1 Credits™
The American College of Surgeons designates this live activity for a maximum of 6.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nurses and other healthcare professionals will receive a Certificate of Attendance. For information on the applicability and acceptance of Certificates of Attendance for educational activities certified for AMA PRA Category 1 Credit™ from organizations accredited by the ACCME, please consult your professional licensing board.

General Disclaimer
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Disclosure Report
The disclosure report for this meeting can be found in the course materials provided to you at registration.

Special Assistance
We encourage participation by all individuals. If you have a disability, advance notification of any special needs will help us better serve you. Call 847-517-7225 if you require special assistance to fully participate in the meeting.
**FRIDAY, MARCH 17, 2017**

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>3:00 p.m. - 7:30 p.m.</td>
<td>Registration/Information Desk Open</td>
<td>Great Lakes Foyer</td>
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<tr>
<td>3:00 p.m. - 4:55 p.m.</td>
<td>Board of Directors Meeting</td>
<td>Georgian Bay</td>
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<tr>
<td>6:00 p.m. - 7:30 p.m.</td>
<td>Exhibit Hall Open</td>
<td>Lake Michigan/Ontario/Erie</td>
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**GENERAL SESSION**

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<tbody>
<tr>
<td>4:55 p.m. - 5:00 p.m.</td>
<td>Opening Remarks</td>
<td>Daniel Malone, MD, RMSK, FACR</td>
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<tr>
<td>5:00 p.m. - 5:45 p.m.</td>
<td>Pediatric Rheumatology</td>
<td>James W. Verbsky, MD, PhD, Children's Hospital of Wisconsin</td>
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<tr>
<td>5:45 p.m. - 6:30 p.m.</td>
<td>Exceptions and Appeals: Influencing Payer Coverage Decisions</td>
<td>Peggy Mellody, RN, Johnson &amp; Johnson Health Care Systems</td>
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<tr>
<td>6:30 p.m. - 7:30 p.m.</td>
<td>Welcome Reception with Exhibitors</td>
<td>Lake Michigan/Ontario/Erie</td>
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<tr>
<td>7:30 p.m. - 9:30 p.m.</td>
<td>WRA Annual Dinner</td>
<td>Wisconsin Room</td>
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**SATURDAY, MARCH 18, 2017**

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<tr>
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<tbody>
<tr>
<td>7:00 a.m. - 3:30 p.m.</td>
<td>Registration/Information Desk Open</td>
<td>Great Lakes Foyer</td>
</tr>
<tr>
<td>8:00 a.m. - 1:30 p.m.</td>
<td>Exhibit Hall Open</td>
<td>Lake Michigan/Ontario/Erie</td>
</tr>
<tr>
<td>7:30 a.m. - 8:30 a.m.</td>
<td>Industry Satellite Symposium Breakfast</td>
<td>Lake Huron</td>
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**GENERAL SESSION**

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<tr>
<td>8:30 a.m. - 8:35 a.m.</td>
<td>Opening Remarks</td>
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<tr>
<td>8:35 a.m. - 9:15 a.m.</td>
<td>Inflammatory Eye Disease: A Rheumatic Perspective</td>
<td>Alvin Wells, MD, PhD, FACR Rheumatology and Immunotherapy Center</td>
</tr>
<tr>
<td>9:15 a.m. - 10:00 a.m.</td>
<td>Biosimilars Scientific Update</td>
<td>Douglas White, MD, PhD Gundersen Health System</td>
</tr>
<tr>
<td>10:00 a.m. - 10:30 a.m.</td>
<td>ACR Advocacy Update</td>
<td>Adam Cooper American College of Rheumatology</td>
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<tr>
<td>10:30 a.m. - 11:15 a.m.</td>
<td>Break &amp; Networking in Exhibit Hall</td>
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<tr>
<td>11:15 a.m. - 12:00 p.m.</td>
<td>Bigger, Faster, Cheaper, CRISPR: The Hope for a New Era of Therapeutics</td>
<td>C. Dustin Rubinstein, PhD University of Wisconsin</td>
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<tr>
<td>12:00 p.m. - 12:30 p.m.</td>
<td>Rheumatology Bundling: A Collaboration Between Wisconsin Rheumatology Association and a Not For Profit Payer</td>
<td>Tim L. Bartholow, MD WEA Trust Insurance Company</td>
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<tr>
<td>12:30 p.m. - 1:30 p.m.</td>
<td>Networking Lunch in Exhibit Hall</td>
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<tr>
<td>1:30 p.m. - 2:15 p.m.</td>
<td>RA Current Treatment Update</td>
<td>Alfonso E. Bello, MD, MHS Illinois Bone &amp; Joint Institute</td>
</tr>
<tr>
<td>2:15 p.m. - 3:00 p.m.</td>
<td>How the Human Microbiome Influences Arthritis</td>
<td>Blake Hanson, PhD The Jackson Laboratory</td>
</tr>
<tr>
<td>3:00 p.m. - 3:15 p.m.</td>
<td>Annual Business Meeting</td>
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<tr>
<td>3:15 p.m.</td>
<td>Adjourn</td>
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Timothy Bartholow, MD
Dr. Bartholow is the VP and first chief medical officer at WEA Trust. Before joining the Trust, Dr. Bartholow served as the Wisconsin Medical Society’s chief medical officer for five years. In this role, he focused on physician and community engagement to promote change in the delivery and payment of health care. Prior to joining the Society staff in November 2008, Dr. Bartholow spent 16 years caring for patients at the Prairie Clinic in Sauk City, Wis., where he was one of 12 clinical owners and on EMR since 2003. He believes that organized and carefully articulated physician feedback is essential for systems to serve the goal of best care. In the late 1990s, he served as medical director for an independent physician association with two-sided risk with more than 400 primary care providers, a precursor to ACOs.

Alfonso E. Bello, MD
Dr. Al Bello is a clinical associate professor of medicine at the University of Illinois College of Medicine at Chicago, board certified in both rheumatology and pain medicine. He is also a consulting associate in the Department of Medicine at Duke University Medical Center, Durham, NC. He is a partner in the Illinois Bone & Joint Institute in Glenview, IL.

Dr. Bello is a graduate of DePauw University with a Bachelor of Arts in Chemistry in 1986. He then attended and graduated from the University of Illinois College of Medicine in 1990. He completed an internal medicine residency at Lutheran General Hospital in Park Ridge, IL in 1993 and an academic fellowship in rheumatology at Duke University Medical Center in Durham, NC in 1996. While at Duke he received a Masters of Health Science in Biostatistics and Clinical Trial Design. He also received the Senior Rheumatology Scholar Award from the American College of Rheumatology in 1996.

Dr. Bello has authored multiple publications in the area of arthritis therapeutics. He has also participated as a member of the American College of Rheumatology Pain Management Task Force and was the sole American member of a select committee that developed osteoarthritis treatment guidelines for Mexico.

Adam Cooper
Mr. Cooper serves as senior director of government affairs for the American College of Rheumatology. In his current role, Mr. Cooper guides the ACR’s legislative and regulatory engagement and its implementation of public policy and advocacy programs. Prior to his work at the ACR, Mr. Cooper served as a vice president at an Atlanta-based public affairs firm, managing the state and federal government relations records of corporate clients, and as manager of government affairs for the Asheville Area Chamber of Commerce in Asheville, North Carolina. Mr. Cooper received his BS in political science from Presbyterian College in Clinton, South Carolina, and his Master’s degree in political science from Emory University in Atlanta, Georgia.

Blake Hanson, PhD
Dr. Hanson received his Doctorate of Philosophy from the University of Iowa College of Public Health in 2013. Currently, he works as a postdoctoral associate at the Jackson Laboratory for Genomic Medicine under the mentorship of Dr. George Weinstock.

Daniel G. Malone, MD, RMSK, FACR
Dr. Malone started his college education at Cornell University in Ithaca, New York, earning a Bachelor of Arts in Physics and later earning his Medical Degree from the University of Illinois, Abraham Lincoln School of Medicine, Chicago, Illinois in 1976. He is currently the clinical associate professor of medicine-rheumatology, Medical College of Wisconsin in Milwaukee, Wisconsin.

In addition to being the president and a member of the Wisconsin Rheumatology Association, he is also a member of the American College of Rheumatology, the American Institute for Ultrasound in Medicine, the International Society for Clinical Densitometry, and the American Registry of Diagnostic Medical Sonographers.

Peggy Mellody, RN
Ms. Mellody has many years of healthcare experience within the provider, payer and biotech sectors. Her areas of expertise include business development, clinical operations and practice management for all sites of care, reimbursement, payer strategy and advocacy.

Prior to joining Johnson & Johnson, her career history included consulting to payers, providers and pharma-biotech companies; chief risk management officer for a national provider organization specializing in oncology and nephrology; vice president, quality and case management for the nation’s first full-risk oncology disease management payer carve-out; and corporate director, clinical services for a national home infusion company.

C. Dustin Rubinstein, PhD
Dr. Rubinstein received his PhD from Cornell University in 2008. He has extensive experience in genetics applied towards a diverse array of research topics, including neuroscience, behavior, reproduction, and bioinformatics. He has always sought to generate tools to best address important research questions. Dr. Rubinstein was most recently a member of a team led by Profs. Melissa Harrison, Kate O’Connor-Giles, and Jill Wildonger. This group was the first to publish the use of CRISPR/Cas9 in Drosophila. In this team, he helped generate a dozen genome-edited flies and built a website to assist CRISPR/Cas9 project design.

Currently, Dr. Rubinstein serves as director for the Translational Genomics Facility in the Biotechnology Center of University of Wisconsin-Madison, serving a diverse array of clients across campus and beyond. While the most vigorous demand is for the generation of genome-edited mice and rats in partnership with the Transgenic Animal Facility, the TGF is also developing swine models, cell line models, bovine models, and zebrafish models. Dr. Rubinstein strives to provide the most cutting-edge and resource-efficient strategies to help his clients meet their research goals.

James W. Verbsky, MD, PhD
Dr. Verbsky received his MD and PhD from Washington University in St. Louis. After graduating he completed a pediatrics internship with the St. Louis Children’s Hospital. His research interests focus on immune regulation, and his research program is based on the premise of taking genetically defined immune deficiencies from humans and modeling these diseases in the laboratory.

Alvin Wells, MD, PhD, FACR
Dr. Wells received his PhD from the University of South Carolina School of Medicine in 1988. Following graduation, Dr. Wells completed his post-doctoral training at Uppsala University Hospital in Uppsala, Sweden. In 1996, he attended the University of South Florida where he received his medical degree. Currently, Dr. Wells serves as the director of the Rheumatology and Immunotherapy Center in Franklin, Wisconsin.

Douglas White, MD, PhD
Dr. White received his MD and PhD (Immunology) degrees at the University of Iowa. He completed residency and fellowship training at UT-Southwestern in Dallas and Washington University in St. Louis. He currently sees patients at Gundersen Health Care in La Crosse, WI and leads the Rheumatology Research Lab where efforts are focused on targeted mutagenesis of herpesviruses and a better understanding of the interactions between latent herpesviruses and the host immune system. He’s been a volunteer at the American College of Rheumatology since 2011.
Wisconsin Rheumatology Association
2017 ANNUAL MEETING

Exhibit Hall Hours
Location: Lake Michigan/Ontario/Erie

Friday, March 17, 2017  6:00 p.m. – 7:30 p.m.
Saturday March 18, 2017  8:00 a.m. – 1:30 p.m.
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SATURDAY, MARCH 18, 2017

7:30 a.m. - 8:30 a.m.    Industry Satellite Symposium Breakfast
                          Location: Lake Huron
                          Sponsored By: Bristol-Myers Squibb
                          “From Prognosis to Pathogenesis: The Role of Autoantibodies in Rheumatoid Arthritis”
                          Robert Schoen, MD
                          Yale School of Medicine

Company Name                Booth #    Company Name                Booth #
AbbVie                        16        Lilly                        21
Alexion Pharmaceuticals        17        Mallinckrodt Pharmaceuticals  14
Amgen                         4, 29      Medac Pharma                 7
Antares Pharma                13        Novartis                    19
Bristol-Myers Squibb          25        Pfizer                      18
Celgene                       9          Prometheus Laboratories     11
Crescendo Bioscience          5          Quest Diagnostics           22
Exagen Diagnostics            24        Sanofi                      28
Genentech                     23        Shire Pharmaceuticals        8
Gilead Sciences               3          Sobi                        6
GlaxoSmithKline               12        SoundRheum Diagnostics      26
Horizon Pharma                15        Takeda Pharmaceuticals       10
Ironwood Pharmaceuticals       27        TSI Healthcare               1
Janssen Biotech               20        UCB, Inc.                   2

Wisconsin Rheumatology Association
Antares Pharma - Antares Pharma is a specialty pharmaceutical company focused on the development and commercialization of self-administered parenteral pharmaceutical products and topical gel-based medicines. Our proprietary self-administration technology platforms include pressure-assisted auto injectors, needle-free injectors, and multi-use pen injectors. For more information, please visit www.antarespharma.com.

Horizon Pharma - Horizon Pharma plc is a biopharmaceutical company focused on improving patients’ lives by identifying, developing, acquiring and commercializing differentiated and accessible medicines that address unmet medical needs. The Company markets 11 medicines through its orphan, rheumatology and primary care business units. For more information, please visit: http://www.horizonpharma.com/

Ironwood Pharmaceuticals - Ironwood Pharmaceuticals is a commercial biotechnology company focused on creating medicines that make a difference for patients. We are commercializing two innovative primary care products, and are advancing a pipeline of innovative product candidates in areas of significant unmet need. For more information, please visit www.ironwoodpharma.com.


Lilly - Lilly unites caring with discovery to make life better for people around the world. We make medicines that help people live longer, healthier, more active lives. We now have a dedicated sales team focused on Rheumatology.

Medac Pharma - Based in Chicago, IL, Medac Pharma is a wholly-owned subsidiary of medac GmbH. Our first product, Rasuvo (methotrexate) injection, is a subcutaneous injectable form of methotrexate (MTX) in an easy-to-use autopen. Our website is www.medacpharma.com.

Novartis - Novartis Pharmaceuticals is dedicated to discovering, developing, manufacturing and marketing prescription drugs that help meet our customers’ medical needs and improve their quality of life.

Prometheus Laboratories - Prometheus is committed to improving lives through the development and commercialization of novel pharmaceutical and diagnostic products that enable physicians to provide greater individualized patient care. We are primarily focused on the detection, diagnosis and treatment of disorders within the fields of gastroenterology and oncology.

Sobi - Sobi is an international specialty healthcare company dedicated to rare diseases. Our mission is to develop and deliver innovative therapies and services to improve the lives of patients. Sobi is a pioneer in biotechnology with world-class capabilities in protein biochemistry and biologics manufacturing.

TSI Healthcare - TSI Healthcare, founded in 1997, is the national leader in the sales and support of Practice Management and Electronic Health Record solutions for almost 500 independent Rheumatologists. TSI Healthcare’s EHR gives you the ability to track patient outcomes by comparing biologics/treatments to disease scores (HAQ, RAPID3, CDAI, etc), labs, and more.

UCB - At UCB, we have a passionate, long-term commitment to discovering and developing innovative medicines that transform the lives of people living with severe immunological diseases and central nervous system disorders. With 8,500 employees in 40 countries, we invest more than 25% of revenue in cutting-edge scientific research to meet unmet patient needs.
wants to thank you all for the incredibly important work you do each day.
Please Visit Our Booth
**RHEUMATOID ARTHRITIS (RA) AND THE ROLE OF INTERLEUKIN-6 (IL-6) DUAL SIGNALING**

Interleukin-6 (IL-6) is a multifunctional cytokine.

Under normal physiologic conditions, IL-6 performs many functions, including vital pro-inflammatory roles in response to infection or injury. Due to the presence of both membrane-bound and soluble receptors, IL-6 affects a wide range of biological activity and interacts with a variety of cells and tissues, such as immune cells, synovial fibroblasts, hematopoietic stem cells, hepatocytes, adipocytes, endothelial cells, and pancreatic islets.

However, persistently elevated IL-6 levels contribute to chronic inflammation. Elevated IL-6 signaling plays a central role in RA and is associated with both articular and systemic manifestations of the disease. In fact, IL-6 is one of the most abundant cytokines in the serum and synovial fluid of the inflamed joints of patients with RA.

**IL-6 signals through 2 distinct mechanisms**

- **IL-6 can signal through membrane-bound receptors (classical or trans-signaling)**
- **IL-6 can also signal through soluble forms of its receptors (trans-signal)**

These 2 distinct signaling mechanisms allow IL-6 to interact with cells that do or do not express the IL-6 membrane-bound receptor (mIL-6R).

**In RA, multiple cytokines, including IL-6, TNF-α, IL-1, and IL-17, signal through membrane-bound receptors**

- **Receptors for tumor necrosis factor-α (TNF-α) or IL-1 are also expressed as membrane-bound and soluble forms**
- **Inflammatory signaling for TNF-α and IL-1 is mediated by the membrane-bound form of the receptor**

References:
When IL-6 levels are persistently elevated, dual signaling may contribute to both articular and systemic manifestations of RA.1,12-15,29-31

In classical or cis-signaling
- IL-6 binds to membrane-bound receptor (mIL-6R)
- The mIL-6R complex then binds to glycoprotein 130 (gp130)
  
In trans-signaling
- IL-6 binds to its soluble receptor (sIL-6R)
- sIL-6R is present in serum and synovial fluid
- When bound to IL-6, sIL-6R can interact and signal in any cell type that expresses gp130
- The sIL-6R complex then binds to gp130

These complexes activate the Janus kinase–signal transducer and activator of transcription (JAK-STAT) pathway and the mitogen-activated protein kinase (MAPK) pathway, which induces the expression of pro-inflammatory genes, such as matrix metalloproteinase (MMP) and receptor activator of nuclear factor kappa-β ligand (RANKL).25,26

IL-6 signaling is a major contributor to induction of C-reactive protein (CRP) and other acute-phase proteins.1,27,28

The acute-phase response changes the concentration of certain plasma proteins, such as CRP, hepcidin, and serum amyloid A (SAA), that are produced in the liver in response to infection, tissue injury, neoplastic growth, or immunological disorder.1,27,28

For more information, please visit www.RAandIL6.com*
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