UPCOMING EVENTS

Rheumatology Update 2012

The CME event will be held April 27-28, 2012, at the Wynfrey Hotel in Hoover, Alabama. This course will focus on rheumatologic diseases including rheumatoid arthritis, osteoarthritis, lupus, osteoporosis, gout, Raynaud's phenomenon, polymyalgia rheumatica, and soft tissue rheumatism.

Learn more about this event and register at www.uab. edu/RheumatologyUpdate or contact Regina Wright at UpdateInRheumatology@ccc.uab.edu.

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Kenneth G. Saag, MD, MSc

Laura B. Hughes, MD, MSPH

Maria I. Danila, MD, MSc

Robert P. Kimberly, MD

S. Louis Bridges Jr, MD, PhD

W. Winn Chatham, MD

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UAB RHEUMATOLOGY RANKED 11TH
BY U.S.NEWS & WORLD REPORT AS
ONE OF THE NATION'S TOP HOSPITALS

ISSUE HIGHLIGHTS

Paving the Path to Personalized Lupus Treatment

TETRAD: A Search for Molecular Signals of Successful RA Treatment

American College of Rheumatology Honors UAB Physicians

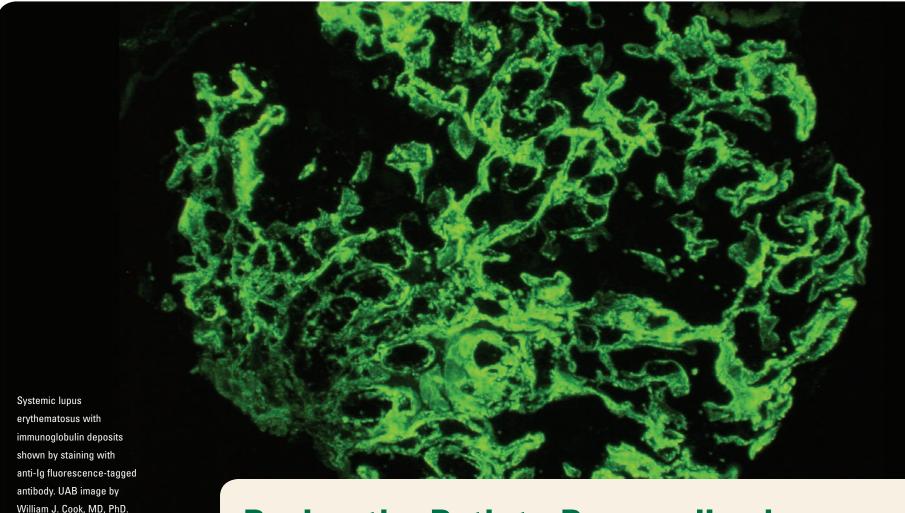
Managing Immunodeficiency Patients with Autoimmune/Rheumatic Disease



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RHEUMATOLOGY INSIGHT

THE UNIVERSITY OF ALABAMA AT BIRMINGHAM



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Paving the Path to Personalized Lupus Treatments

A \$3.35 million Grand Opportunity grant led by UAB Rheumatology's Robert P. Kimberly, MD, resulted in creation of a 10-member national consortium to conduct a genome-wide association study (GWAS) to define biologic factors to identify lupus patients likely to develop severe kidney disease. The End-Stage Renal Disease (ESRD) in Lupus Consortium may pave a path to personalized medical treatment for patients.

The study, now in its genotyping stage, employs the Illumina Human Omni-1Quad BeadChip to overcome previous technical limitations and provide a state-of-the-

art genotyping platform. It surmounts a second barrier, limited study populations, by the assemblage of "an unprecedented team of rheumatologists, nephrologists, and statistical geneticists with active patient cohorts giving us an existing clinical studies infrastructure," says Kimberly. "We have exceeded recruitment goals—by looking only at ethnicity of participants, we can say that end-stage renal disease is more likely to occur in African Americans by at least twofold."

Additionally, the consortium has built an essential resource consistent with NIH specimen- and data-sharing

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TETRAD: A Search for Molecular Signals of Successful RA Treatment

NEW PHYSICIANS

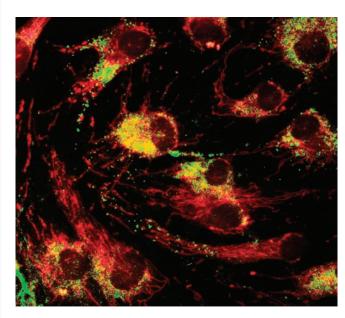
Henry Townsend, MD, joined UAB as assistant professor of medicine. He received his MD from UAB School of Medicine. His postgraduate training consists of a University of Texas Southwestern Medical School internal medicine residency, a UAB rheumatology fellowship, and a Brigham and Women's Hospital/ Harvard University dermatologyrheumatology fellowship.

Marcin Trojanowski, MD, joined UAB as assistant professor of medicine. He received his MD from the Medical University of South Carolina (MUSC) College of Medicine in Charleston. His postgraduate training consists of an internal medicine residency at Georgetown University Hospital and a rheumatology fellowship at MUSC.

The development of a national database and repository initiated by the UAB Division of Clinical Immunology and Rheumatology has brought rheumatoid arthritis (RA) specialists closer to the day they can predict which drugs will work best for individual patients.

"Rheumatologists have an arsenal of potentially effective medications for RA, but we need to have the resources to identify the most efficacious and cost-effective treatment for individuals," says Division Director Louis Bridges Jr, MD, PhD.

Bridges is principal investigator for the \$3.3 million Treatment Efficacy and Toxicity in RA Database and Repository (TETRAD), funded through a National Institute of



Fucosylation on human RA synovial fibroblasts

Arthritis and Musculoskeletal and Skin Diseases grant.

"By unifying the efforts of academic researchers, we can create resources that would not otherwise be available, such as a bank of cryopreserved blood cells to enable sophisticated immunologic research to dissect molecular signals of successful RA treatment. The ultimate goal is to personalize the treatment." He predicts this model will be used to personalize treatments for other diseases as well.

TETRAD's pilot phase involves nine sites. "We envision enrolling thousands of individuals, ideally with thousands on each drug," he says. "These data will help us to look for markers of how a patient responds to a particular drug." The sites gather blood for DNA, RNA, serum, disease activity levels before and after going on their regimen, and side effects.

"The academic community has responded well—we have recruited 165 of our goal of 200 patients," he adds. "We are working with the national Arthritis Foundation and other partners to expand the database into a national resource for investigators worldwide to use to develop RA treatment response predictors.

"The high cost of biologic treatments makes choice of the proper drug critical. We hope to find sources of funds to carry the project beyond our initial phase," he says. "This database will enable well-powered studies to identify predictors of treatment response to particular drugs."

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guidelines to enable follow-up studies in fine-mapping, deep sequencing, SNP identification, pathway analysis, and methods development.

Kimberly, director of the UAB Comprehensive Arthritis, Musculoskeletal, and Autoimmunity Center, says, "This study leverages existing resources to address important questions about the underlying genetic influences on susceptibility to ESRD in lupus. We are confident that this understanding will lead to new strategies for ESRD intervention, reduce ethnic

disparities in health outcome, and enable substantial cost savings in health care."

The study compares lupus patients with ESRD and without nephritis to define genetic factors that would be able to predict the kidney complication.

"Our data show that at least two genetic factors allelic variants of the genes FCGR3A and MYH9 contribute to ESRD risk, but we believe other genetic factors are involved, as well as possible environmental factors."

The consortium also includes Emory University, Johns Hopkins University, Medical University of South Carolina, Northwestern University, Ohio State University, Oklahoma Medical Research Foundation, University of Florida, Wake Forest University, and HudsonAlpha Institute of Biotechnology.

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UAB MEDICINE NEWS

Koopman Receives ACR Honor

Former UAB Rheumatology Division Director William Koopman, MD, received the 2011 Presidential Gold Medal from the American College of Rheumatology (ACR), the highest award that organization bestows. The award is in recognition of outstanding achievements in rheumatology over an entire career. Koopman is a UAB Distinguished Professor and chairman emeritus of the Department of Medicine.

Managing Immunodeficiency Patients with Autoimmune/Rheumatic Disease

UAB Rheumatology has initiated a multispecialty clinic to assist with the evaluation and management of patients with immunodeficiency disorders who present with autoimmune and/or rheumatic complications. The combined expertise of specialists in developmental and clinical immunology and in rheumatology provide care and consultations for pediatric patients transitioning to adult care as well as adult patients with rheumatic and autoimmune disorders with underlying immune deficiency. Specialists are Prescott Atkinson, MD, PhD, Harry Schroeder, MD, PhD, and Winn Chatham, MD.

Kimberly Named ACR Master

Robert Kimberly, MD, was selected as a 2011 Master of the American College of Rheumatology, the fourth consecutive year a UAB faculty member has been selected for this honor. Kimberly joins Graciela Alarcón, MD, MPH, Gene V. Ball, MD, Claude Bennett, MD, Louis Heck, MD, William Koopman, MD, and former fellows Chris Alexander III, MD, and Kenneth Sack, MD, as UAB-associated Masters of the ACR.

Morgan Heads Clinical Densitometry Group

of the International Society for Clinical Densitometry. She joined UAB Rheumatology as professor in 2011 following more than two decades in the UAB Department of Nutrition Sciences. The medical director of the UAB Osteoporosis Prevention and Treatment Clinic and Bone Densitometry Service, she earned her MD and completed an internal a clinical nutrition fellowship and received a master's degree in nutrition from UAB. Her interests include folic acid and and bone densitometry.

Lupus Foundation of America Lauds Alarcón

Graciela Alarcón, MD, MPH, was the recipient of The Lupus Foundation of America's 2011 Evelyn V. Hess, MD, MACP, MACR Award, given annually to a clinical or basic researcher whose body of work has advanced understanding of the pathophysiology, etiology, epidemiology, diagnosis, or treatment of lupus. She has helped lead frontline research on lupus among minority groups in the US. She is advisor to the Lupus Clinical Trial Consortium and cochair of its Data Management and Publications Committee. An emeritus member of the UAB Rheumatology faculty, Alarcón is supervising the work of her former fellows in Argentina,

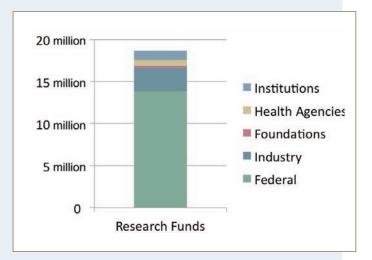
Sarah Morgan, MD, RD, CCD, was elected the 11th president medicine residency at the University of Iowa. She completed methotrexate metabolism in rheumatic diseases, osteoporosis,

Chile, Colombia, and Mexico.

Rheumatology Funding Surpasses \$18 Million

MEASURES OF SUCCESS

As of August 1, 2011, the UAB Division of Clinical Immunology and Rheumatology held 131 grants and contracts totaling \$18.7 million in annual research funding. This figure represents 23.1% of the UAB Department of Medicine's federal support, 16.2% of its industry funding and 20.2% of its total research dollars. In all, the division accounts for almost 9% of the total research funds in the UAB School of Medicine.



Rheumatism. 2011 Aug;63(8): 2531-2539. Timothy Beukelman, et al.

PUBLICATIONS OF NOTE

Jasvinder Singh, MD, MPH, et al. "Hospital Volume and Surgical Outcomes after Elective Hip/Knee Arthroplasty: A Risk

Adjusted Analysis of a Large Regional Database." Arthritis &

"2011 American College of Rheumatology Recommendations for the Treatment of Juvenile Idiopathic Arthritis: Initiation and Safety Monitoring of Therapeutic Agents for the Treatment of Arthritis and Systemic Features." Arthritis Care & Research. 2011 Apr;63(4): 465-482.

FEATURED CLINICAL TRIALS

A Randomized, Double-blind, Controlled, Phase II Multicenter Trial of CTLA4lq (Abatacept) Plus Cyclophosphamide vs **Cyclophosphamide Alone in the Treatment** of Lupus Nephritis. This NIH funded trial coordinated through the Immune Tolerance Network will treat all subjects with cyclophosphamide 500mg IV every 2 weeks for six doses. Subjects will be randomized to receive either Abatacept/placebo at weeks 0, 2, 4 and then every 4 weeks until week 24. All subjects will receive Azathioprine 2mg/kg from week 12 to week 24. Subsequent therapy will depend on the study group and the nature of the response assessed at 24 weeks. Total study duration is 52 weeks. NCT00774852. PI: Winn Chatham, MD. Contact: Angela Kendrach, RN 205-975-8091.

A Partially Blinded, Randomized, Multi-Center, **Phase IV Trial to Evaluate Mechanism of Action of Anti-TNF Agents in Rheumatoid**

Arthritis. ARA06 is an investigator-initiated NIH funded clinical trial designed to evaluate the mechanistic effects of TNF- α inhibition on clinical and mechanistic measures in RA patients. Subjects will be randomized to one of two active treatment arms, etanercept or adalimumab, and will receive treatment using standard dosing regimens for 24 weeks. Subjects will be randomized in a 2:1 ratio until 40 and 20 subjects are treated with etanercept and adalimumab, respectively. The primary objective is to explore the differential impact of these two TNF inhibitors on memory B lymphocytes in the peripheral blood of patients with RA. NCT00837434. PI: Jeffrey Curtis, MD. Contact: Laticia Woodruff 205-934-9843.

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