

DR. PETER GOREVIC is examining the pathogenesis of the various forms of amyloid disease, with emphasis on those that are concomitant with the aging process.

DIVISION OF RHEUMATOLOGY

According to Division Chief Peter D. Gorevic, MD, Lillian and Henry M. Stratton Professor of Medicine (Rheumatology), the incidence and severity of musculoskeletal and autoimmune diseases rise along with each passing birthday. As the US population ages, there has been a considerable upswing in these conditions. One indicator of this trend is a 30 percent increase in new and established patient visits to the Rheumatology faculty practice at Mount Sinai over the past three years.

In addition, the Division's case mix index, a measure of case complexity, has risen fairly steadily over the past five years. The inpatient consultation service remains among the busiest within the Department of Medicine in terms of patient caseload and opportunities for physician education and training.

Leadership Past and Present

“MOUNT SINAI HAS BEEN A LEADER IN RHEUMATOLOGY RESEARCH SINCE THE 1920S, WHEN DRs. LIBMAN & SACKS FIRST DESCRIBED THE HEART LESIONS WE OFTEN SEE IN LUPUS PATIENTS” NOTES DR. GOREVIC.

In the 1940s Paul Klemperer, MD, was the first to establish the relationship between connective tissue and autoimmune disorders, and to coin the still widely used term “collagen-vascular disease.”

In the 1950s one of the first gout clinics in the United States was founded at Mount Sinai by Alexander Gutman, MD, the first full-time Chairman of Medicine, and Tsai-Fan Yu, MD. Later in the decade, one of the first standardized laboratory tests for diagnosing rheumatoid arthritis was developed at The Mount Sinai Hospital.

Medical education and training in the specialty also advanced significantly at Mount Sinai in the 1970s, when Harry Spiera, MD, Clinical Professor of Medicine, established the Rheumatology Training Program.

Also under Dr. Spiera's direction, Mount Sinai became one of the first major referral centers for difficult-to-treat autoimmune disorders. Today, he continues to maintain a busy practice and is part of a national consortium funded by the NIH that is developing new therapeutic strategies for Wegener's granulomatosis and other vasculitides.

Center of Excellence

Mount Sinai is one of only four major referral centers for amyloid diseases in the United States. It is a Center of Excellence for the diagnosis and treatment of amyloid diseases, autoinflammatory syndromes, and cryopathies.

Dr. Gorevic is currently examining the pathogenesis of various forms of amyloid disease, with emphasis on those that accompany the aging process. Mount Sinai is one of four amyloid centers in the United States to participate in a clinical trial that has established efficacy for a novel therapeutic agent for secondary amyloidosis, which is currently being evaluated for release by the FDA.

Diverse Expertise

HCV

While most commonly perceived as only affecting the liver, infection with the hepatitis C virus (HCV) often leads to other serious conditions. One of the most common is cryoglobulinemia, a condition in which the presence of abnormal proteins in the bloodstream thicken or gel upon exposure to cold.

Clinical and Mechanism of Action studies are currently underway at Mount Sinai to establish efficacy of B cell depletion for the treatment of mixed cryoglobulinemia, which has a 60-80 percent association with chronic HCV infection.



IN MEMORIAM: TSAI-FAN YU
A GIANT OF MOUNT SINAI RHEUMATOLOGY PASSES
IN 2007 AT AGE 95

She was born in Shanghai, China in 1911, received her medical degree with highest honors, and became chief resident in Internal Medicine at Peking Union Medical College in 1939, an unprecedented feat for a female physician during that era. However, that was only the beginning of a long and an illustrious career of research and patient care, most of it performed at Mount Sinai.

Dr. Yu came to Mount Sinai as an associate professor of internal medicine in 1957. Her research was continuously funded by the NIH for an astounding 26 years. In the 1950s, Dr. Yu helped to found one of the first gout clinics at Mount

Sinai. Working with long time colleague and collaborator Alexander B. Gutman, MD, then Chair of the Department of Medicine, she helped establish a metabolic connection between elevated levels of uric acid and the pain experienced by gout patients.

Drs. Yu and Gutman conducted seminal studies that established the value of drugs such as probenecid and allopurinol for this often debilitating disease, as well as the safety and efficacy of prophylactic colchicine, which remains in use today as an effective gout treatment.

The clinical studies are examining the overlapping syndromes of arthropathy, vasculopathy, neuropathy, and glomerulonephropathy. Concomitant studies are targeted to examining B cell subsets in peripheral blood and tissue lesions, and the role of the B cell in chronic HCV infection. Therapy for extrahepatic diseases associated with HCV is also being explored in a study investigating combination therapy with pegylated interferon (IFN).

Collaborative studies with the laboratory of Dr. Gerard Nuovo, Professor of Pathology at Ohio State Medical School, are using *in situ* techniques to define the presence of viral RNA and specific host messaging in tissue samples from patients with HTLV1 and HCV-associated rheumatic disease.

Gout

Mount Sinai has been a major referral center for gout for more than 50 years. Today, the disorder has grown in prevalence and complexity with an increasing population of elderly people affected by metabolic syndrome, and of patients with renal insufficiency or who have undergone organ transplantation.

For patients with refractory tophaceous gout intolerant of standard therapeutics, a phase III, international multi-center trial of a novel therapeutic agent, uricase, is currently in progress.

Sjogren's Syndrome

The Lowenstein Foundation's Sjogren's Disease Center at Mount Sinai is one of the few regional centers for this syndrome in the country. The Center seeks to provide multidisciplinary consultations and care for persons affected by this disorder.

Geriatric Rheumatology

Leslie Kerr, MD, Associate Professor, has particular expertise in geriatric rheumatology. A number of years ago, she established an interdisciplinary clinic with Mount Sinai's renowned Coffey Geriatric Practice to address the needs of elderly patients presenting with a wide array of disorders.

Outreach

Division faculty members act as an important resource for the National Amyloidosis Support Group, which meets regularly at Mount Sinai, as well as for the South Harlem Lupus Support Group. In addition, the Division is active with other patient groups through its participation in the New York chapter of the National Arthritis Foundation.

Two Division faculty members—Dr. Kerr and Michael Naarendorp, MD, Clinical Instructor of Medicine—provide community-based services at East Harlem's North General Hospital. The two rheumatology clinics there, staffed by these physicians and Rheumatology fellows, bring qualified subspecialty care to the local community.

Training the next generation of specialists is essential to ensuring continued care for patients. For the 2006/07 academic year, the Division received more than 100 applications for one open fellowship slot. Division faculty also support the Rheumatology fellowship at Mount Sinai's affiliate hospitals with elective rotations.

Dr. Kerr developed the Annenberg Connective Tissue Disease Clinic, a major training venue for fellows and a significant component of the rotation in this specialty for residents and medical students.