



SHERMAN PRIZE

Inspiring Excellence
in Crohn's and Colitis

The Bruce and Cynthia Sherman Charitable Foundation Announces Recipients of 2018 Sherman Prizes, Rewarding Outstanding Achievements in Crohn's Disease and Ulcerative Colitis

- Honorees Recognized for Pioneering Novel IBD Management Strategies and Surgical Approaches that Have Become Established Care Guidelines -

NAPLES, Florida, September 12, 2018 – The Bruce and Cynthia Sherman Charitable Foundation today announced the recipients of the 2018 Sherman Prizes, recognizing outstanding contributions in the fight to overcome Crohn's disease and ulcerative colitis, also known as inflammatory bowel diseases (IBD). This year's Sherman Prize honorees are David G. Binion, MD, of the University of Pittsburgh School of Medicine, and Jean-Frederic Colombel, MD, of the Icahn School of Medicine at Mount Sinai in New York City, who are recognized for their paradigm-shifting research that has led to some of today's best practices in IBD care. Amy L. Lightner, MD, of the Mayo Clinic College of Medicine in Rochester, Minnesota, is recognized with the Sherman Emerging Leader Prize for her achievements in improving surgical outcomes for patients.

Highlights of Sherman Prize recipients' achievements:

- **Dr. David G. Binion** is internationally recognized for the novelty and creativity of his research on the immunologic, cellular and physiologic alterations associated with Crohn's disease and ulcerative colitis, applying his insights to improving care for those most severely impacted by these diseases.
- **Dr. Jean-Frederic Colombel** is a world leader in building collaborative research teams, bringing together experts from inside and outside the field of IBD to identify genetic causes of IBD, factors that impact disease progression and effective treatment strategies that represent today's best practices in care.
- **Dr. Amy L. Lightner** is a colorectal surgeon who is building a reputation for pushing the boundaries of minimally invasive surgery and exploring regenerative cellular and acellular therapies to help manage some of the most difficult complications of Crohn's disease.

"We founded the Sherman Prize with a vision of driving innovation in the field of IBD," said Bruce Sherman. "This year's Sherman Prize honorees, Drs. Binion, Colombel and Lightner,

have helped to transform treatment and surgical approaches so people with IBD are able to achieve better disease management and experience fewer complications than was thought possible even a decade ago. I look forward to seeing what these outstanding physician scientists continue to accomplish in their own careers, as well as in those they mentor, in their pursuit of solving some of the most intractable problems of IBD.”

Millions of people worldwide suffer from Crohn’s disease and ulcerative colitis, which are chronic, inflammatory diseases that damage the gastrointestinal tract. While there are effective treatments, there is no cure and available medicines do not work for everyone.

The Sherman Prize is the first of its kind to recognize talented, dedicated individuals for their pioneering achievements in improving outcomes for people with Crohn’s disease and ulcerative colitis. Every year, two \$100,000 Sherman Prizes are awarded to individuals with extraordinary track records of achievement, transforming IBD care and inspiring tomorrow’s innovators. A \$25,000 Sherman Emerging Leader Prize is awarded to an individual making impressive contributions early in his or her career and demonstrating strong potential to make an even greater impact in the future. Sherman Prize honorees are selected by the Sherman Prize Board of Directors, with guidance from nationally renowned IBD researchers, clinicians and healthcare providers who comprise the Sherman Prize Selection Committee.

“Advancing the care and treatment of people with IBD requires collaboration among a diverse group of experts – no one physician or researcher will be able to conquer all of the complexities of IBD,” said Dr. David Rubin, the Sherman Prize Selection Committee Chair and Chief of the Section of Gastroenterology, Hepatology and Nutrition at The University of Chicago Medicine. “One of the most important attributes that this year’s Sherman Prize recipients share is their leadership in building bridges with colleagues across the fields of medicine, biology, technology and information systems to foster scientific breakthroughs that lead to more effective treatment and a better quality of life for people with IBD.”

The Sherman Prizes will be presented on December 13, for the first time at the Advances in Inflammatory Bowel Diseases conference in Orlando, Florida. To learn more about the Sherman Prize and sign up for notification of the 2019 nomination period, please visit www.ShermanPrize.org.

About the 2018 Sherman Prize Recipients

DR. DAVID BINION: A physician scientist, living with Crohn’s disease, who has pioneered the collection and analysis of ‘Big Data’ to make precision medicine possible in IBD.

Dr. David Binion is a Professor of Medicine, Clinical and Translational Science; Co-Director of the IBD Center; and Director of Translational IBD Research at the University of Pittsburgh School of Medicine where he continues a career focused on analyzing ‘Big Data’ to better understand IBD and optimize treatment, especially for those with more severe disease.

Through his novel and creative approach to data collection and analysis, Dr. Binion has made important discoveries that dramatically improved the prognosis of people with IBD. Perhaps one of his most significant research findings is his identification in the early 2000s of higher rates of *Clostridium difficile* (*C. diff*) in his ulcerative colitis patients, and in patients across the country. Because the infection often mimicked an IBD flare, patients were treated with corticosteroids and immunosuppressive agents which sometimes led to catastrophic outcomes and death. By identifying the underlying *C. diff* infection, Dr. Binion helped change the treatment paradigm for these patients.

At the University of Pittsburgh Medical Center (UPMC), Dr. Binion continues to aggregate IBD patient data, building a registry from the ground up, which has led to new discoveries of ways to identify patients at risk for severe disease and to improve outcomes and reduce complications after common IBD surgeries.

“The opportunity to collect information to practice evidence-based medicine occurs in every clinic visit,” said Dr. Binion. “At UPMC, we’ve developed a structure that enables real-time quality improvement because we are constantly assessing our performance and patient outcomes in a systematic way. By using this data and asking the right questions, we can see what is and isn’t working so we can improve our patients’ quality of life.”

What drives Dr. Binion’s research is the desire to heal his patients. He’s known for taking on the most severe cases of IBD and has been described as a “brilliant, Yoda-type with a penchant for thinking outside the box.” What perhaps gives him important insight is that he approaches patient care and research from the perspectives of both physician *and* patient. Diagnosed with Crohn’s disease as a teen and having coped with severe illness, Dr. Binion says, “I’m a walking support group when I go to clinic. Patients know I’m speaking from experience when I say, ‘do this, you’ll feel better.’”

Dr. Binion continues to explore new ways to help people with IBD return to better health. He focuses his research today on trying to identify the factors that contribute to different clinical trajectories, treatment responses and long-term outcomes so that he can identify opportunities to improve treatment at critical junctures in the disease pathway.

DR. JEAN-FREDERIC COLOMBEL: Internationally recognized for leading breakthroughs in understanding IBD genetics and risk factors, and establishing optimal treatment approaches.

Dr. Jean-Frederic Colombel conducts research and cares for patients at the Icahn School of Medicine at Mount Sinai in New York City where he is a Professor of Medicine, Director of the Leona M. and Harry B. Helmsley Charitable Trust IBD Center and Director of the Susan and Leonard Feinstein IBD Center. Prior to coming to New York in 2013, Dr. Colombel was the

Head of the Department of Hepatogastroenterology at CHU de Lille, France. He is the first Sherman Prize recipient to train and practice outside of the U.S.

While in Lille, Dr. Colombel conducted research that led to some of the most seminal discoveries in IBD, including ASCA as a seromarker for Crohn's disease; the first gene for IBD – NOD2 – which remains the most important genetic risk factor for Crohn's disease; and a new strain of E. coli (adherent invasive E. coli, or AIEC) that is associated with ileal Crohn's disease. Dr. Colombel is also lauded for establishing evidence to support therapeutic strategies widely in use today, including combination therapy, treating to target and de-escalating immunosuppressive medicines.

Dr. Colombel's research findings were made possible, in part, by his leadership in establishing multidisciplinary research teams. He is widely recognized as one of the most effective collaborators in the field of IBD, bringing together geneticists, microbiologists, epidemiologists, systems engineers and IBD clinicians to study new concepts in the causes, prognosis, diagnosis and treatment of IBD. Through this work he has mentored and motivated the next generation of IBD physician scientists, supporting them in pursuing their own novel research ideas.

Today, Dr. Colombel is focused on the potential to predict Crohn's disease with the ultimate goal of prevention. "My dream is to catch the process leading to disease even before the first symptom," he says. "It's a long and difficult road ahead, and will require great collaboration among the world's top scientists and researchers, but I think we will be able to predict the onset of Crohn's disease five years before the first symptom appears – which creates the possibility for one of medicine's primary aims – preventing disease."

DR. AMY LIGHTNER: An expert in pouch reconstruction, minimally invasive surgery and investigational, non-surgical approaches to healing IBD-related fistula.

In college, Dr. Lightner thought she had a career ahead as a writer. Volunteering in a reading program at a local children's hospital, she met a cardiac surgeon who got her interested in medicine and changed her life's trajectory toward one of dedication to medicine and science. Today, Dr. Lightner is an Assistant Professor of Surgery at the Mayo Clinic College of Medicine and Medical Director of the Translation Into Practice Platforms at Mayo Clinic's Center for Regenerative Medicine in Rochester, Minnesota. She specializes in colon and rectal surgery and advancing research on regenerative cellular and acellular based therapeutic approaches for IBD.

Dr. Lightner applies her surgical skills to some of the most complex surgical cases in IBD -- reconstructive pouches. Surgical removal of the colon and rectum and the creation of an internal pouch, called proctocolectomy with ileal pouch-anal anastomosis, is the most commonly performed restorative surgery in ulcerative colitis, allowing individuals to avoid a permanent ostomy bag. However, about ten to fifteen percent of patients will have pouch failure – which typically means they will receive a permanent ostomy. Dr. Lightner offers these patients an

alternative. She is among a small group of surgeons across the country who are skilled at pouch reconstruction - giving patients a chance at an ostomy-free life.

While pushing the boundaries of reconstructive pouch surgery, as well as minimally invasive surgical techniques, Dr. Lightner is a surgeon who actually wants to see fewer IBD surgeries. She's currently pursuing research in innovative stem cell and acellular therapies to try to offer her patients non-surgical alternatives.

"Medicine as a whole is moving in the direction of regenerative medicine and I'm doing research to find the next paradigm-shifting treatment derived from our own cells," said Dr. Lightner. After seeing early success in treating IBD fistulas with stem cells derived from donor bone marrow or adipose tissue, Dr. Lightner plans to initiate a Phase 1 trial to explore a novel regenerative acellular therapy. This trial would be the first of its kind in perianal fistula, which affects approximately twenty-five percent of people with Crohn's disease. These fistulas cause inflammation, pain and stool incontinence and are difficult to treat. Up to a fifth of patients will end up having their rectum removed and getting an ostomy. "If we are successful in injecting this novel acellular regenerative therapy around the tract of the fistula, enabling it to heal, it could change the landscape of Crohn's disease," said Dr. Lightner.

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