

M.I.R.I.A.D. Biobank

Material and Information Resources for Inflammatory And Digestive Diseases

A Newsletter about Research at Cedars-Sinai IBD

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A CURE FOR IBD: Why it is so elusive.

You may wonder, why is it so hard to find a cure for IBD? The disease processes of IBD are highly complex, involving genetics, the immune response and the microbes found in the intestinal tract. Unlike some diseases that are caused by a variation in only one gene, researchers have found more than a hundred genetic associations with IBD, and in any one person, several genes may come together to influence the development of IBD and the severity of the disease course.

Similarly, the human gut contains millions of microbes that are essential for normal intestinal function, but that also participate in the development and perpetuation of inflammation. With so many genetic and microbial variables there are virtually an endless number of combinations with the potential to manifest as IBD.

Cedars-Sinai has spearheaded the effort to understand IBD by identifying subsets of patients within the standard classifications, defined not only by similar symptoms and complications, but also by underlying genetics and other markers of specific biologic processes.

Using this approach, we are making a lot of progress in understanding what drives disease severity, response to certain medications and much more.

Our patients, and the MIRIAD Biobank, enable Cedars-Sinai IBD to move faster toward the goal of a cure and ultimately toward prevention of IBD.

Meet Cedars-Sinai IBD Physician/Researcher:

Stephan R. Targan, MD.

Director, F. Widjaja Foundation Inflammatory Bowel and Immunobiology Research Institute.

Dr. Targan has been caring for patients and doing research in IBD for more than three decades. His work spans clinical, basic and translational research and is primarily focused on translation of basic science and genetic findings for use in diagnosis, prognosis and finding new ways to treat IBD. Dr. Targan has helped to teach an entire generation of physicians about best practices in patient care and research. Dr. Targan is known worldwide as a leader in the field of IBD.



“When I tell patients who participate in our MIRIAD Biobank that they are truly helping everyone with IBD, I’m just beginning to scratch the surface of how important they are to the process.”

How MIRIAD Biobank Participation helps advance research in IBD?

It can be difficult to understand how MIRIAD Biobank participation helps researchers whose work is aimed at improving the lives of patients and developing better diagnostic tools and medicines. Usually when people think about participation in medical research the first thing that comes to mind is what is called an Intervention Trial, in which the patient is helping to test a new treatment or to compare a new drug to a placebo. Intervention Trials are very important and Cedars-Sinai IBD is leading or involved in many such trials; however, it could be said that they represent the “grand finale” of a research process that probably started in a laboratory 5, 10, 15 or more years earlier.

**A little time, an extra
tablespoon or two of blood ...**

The MIRIAD Biobank provides essential information and specimens for the type of research done mostly in laboratories. The MIRIAD Biobank has been in existence for nearly 25 years, collecting, storing, evaluating and disbursing specimens donated by our patients. These materials have been the foundation of hundreds of discoveries, which together have helped us learn more about what causes IBD and find better ways to treat it. Thousands of individuals have participated in the MIRIAD Biobank for IBD research, sometimes by no more than spending a little extra time to complete a questionnaire or by allowing an extra tablespoon or two of blood to be taken for research.

We couldn't have done it without you! Read here about how MIRIAD Biobank participants made a difference.

Biologic treatments such as Remicade™, Humira™, Cimzia™, and Simponi™



Remicade™, Humira™ and others are in a relatively new class of medications that alter the production or function of a protein known as TNF. These new medications have been very effective in helping patients with Crohn's disease experience remission in their disease. MIRIAD Biobank participants donated blood samples and allowed their discarded surgical tissue to be used for laboratory research leading to the discovery that patients with Crohn's disease over-produce TNF. Within a few years, Cedars-Sinai IBD Center physicians led a trial to test CA2, which later was named Remicade™.

Blood tests to aid in the diagnosis of Crohn's disease and Ulcerative Colitis.

Because the signs and symptoms of Crohn's and ulcerative colitis can be very similar to each other and also easy to confuse with the symptoms of many other digestive diseases, finding the right diagnosis can be very challenging. Yet it is critically important for determining the best type of treatment. Specimens from the MIRIAD Biobank were used to discover blood tests that detect the presence of specific markers in the blood serum. We discovered that these markers, alone and in combination are associated with either Crohn's or ulcerative colitis. If you have IBD and are a patient at Cedars-Sinai IBD, you most likely had a blood test that only could have been discovered with the help of the MIRIAD Biobank.

Interestingly, these blood tests are now being used to perfect the use of biologic treatments. Cedars-Sinai IBD researchers have discovered that blood tests can be used to help predict response to TNF altering drugs. Patients with high levels of a certain serum marker are much less likely to benefit from these drugs. This information helps physicians and patients make decisions about which treatments to try and better gauge their effectiveness.

Meet Debbie Dutridge!

MIRIAD Biobank Coordinator

Chances are you have met Debbie Dutridge. She has been a research coordinator at Cedars-Sinai IBD since 2001. Before joining the IBD Group, Deb worked at the Medical Genetics Institute at Cedars, serving as the point person linking the Inflammatory Bowel Disease and Immunobiology Research Institute and Medical Genetics Institute. Deb received her M.A. in Occupational Therapy from University of Southern California, and she is also a proficient phlebotomist. She has worked on many studies involving multiple centers, and has extensive experience in coordinating genetic research projects in the IBD population. At Cedars-Sinai IBD, Debbie is there to help you understand MIRIAD participation, fill out questionnaires, and to take that precious blood sample.



MIRIAD BIOBANK



Featured MIRIAD Research Project:

SINAI HELMSLEY ALLIANCE FOR RESEARCH EXCELLENCE S.H.A.R.E

*The MIRIAD Biobank supports more than 70 research projects. When you participate your data or sample may be used in one or more projects, all focused on finding ways to understand, improve treatments or prevent IBD. One such project is known as **SHARE**.*

SHARE is a systems biology-based multicenter program for integrated studies in IBD, led at Cedars-Sinai IBD by Physician-Scientist, **Dr. Dermot McGovern**. This collaboration of top IBD research centers facilitates the correlation of patient information, scientific data with genetic findings. Because of the high degree of complexity of IBD patients, it is essential to conduct studies in well defined, focused and characterized patient groups. This collaboration enables investigators to better understand the causes and develop new treatments for IBD through sharing of resources, specialized technology, patient samples, patient information, and data integration using bioinformatics technology.

Like us on Facebook: www.facebook.com/CedarsSinaiIBD

Follow us on Twitter: @CedarsSinaiIBD

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Cedars-Sinai IBD Research Web group: <http://www.cedars-sinai.edu/Research/Departments-and-Institutes/IBD/index.aspx>