



CROHN'S AND COLITIS CANADA
**RESEARCH
REPOORT**

**17
18**

Make it stop. For life.

2017/18 fiscal year: July 1, 2017 to June 30, 2018 | Pictured: Susan Foulds, Patient in PACE Telemedicine Program



Crohn's and
Colitis Canada
Crohn et
Colite Canada



ADVANCING RESEARCH

Since our founding in 1974, Canadians remain united with Crohn's and Colitis Canada in our relentless journey towards discovering the cures for Crohn's disease and ulcerative colitis, and improving the quality of life for people affected by these chronic and often invisible diseases. With so many people affected by these diseases in Canada, chances are that you, a loved one, or a friend, is living with Crohn's or colitis. Chances are that you know, first-hand, how devastating these diseases are. That's why what we do is so critical: investing in research to identify the causes and triggers of Crohn's and colitis, seeking to discover the cures, advancing treatments, improving patient care, and supporting learning opportunities for scientists.

It is through the ongoing support of our volunteers, patients, donors, partners, and sponsors that we are able to support Canadian scientists conducting world-class research. Last year, we invested \$6.7 million in ground-breaking research bringing our total research investment to nearly \$122 million. As one of the top two health charity funders of Crohn's and colitis research in the world, we are eager to see the outcomes of the 48

research projects and initiatives that we supported in 2017/18. We sincerely thank the scientific community for their steadfast commitment to driving this research.

Along with providing a summary of our investments, our report features stories which highlight some of the pioneering work currently underway along with the latest advancements in the Genetic, Microbial, Environmental (GEM) Project, the world's largest prospective clinical study on Crohn's disease, and what is on the horizon. With another exciting year ahead, we are proud to announce that we will release our updated Impact of IBD in Canada report in November of 2018.

Moving ahead, we remain committed to investing in priority areas identified by the patient and research communities. As we continue on the journey to discovering cures and improving lives, we sincerely thank you for your unwavering support. Your voice helps us advocate for change, and your efforts enable us to move even closer to fulfilling our promise to find the cures. We hope you enjoy learning about all of the research you have made possible.

CROHN'S AND COLITIS CANADA

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2020 VISION

Crohn's and Colitis Canada is a global force advancing transformational research and activating our community to improve the lives of people affected by Crohn's and colitis in Canada.




LEGEND

 Generate new science, knowledge and treatments for Crohn's and colitis through a diverse research portfolio

 Create an open conversation about Crohn's and colitis and grow our profile as leaders

 Diversify and grow our fundraising

 Improve the quality of life and day-to-day experience of people living with or affected by Crohn's or colitis

 Support high performance and strategic action across the organization

FUELING RESEARCH BY

ADVANCING DISCOVERY

Powering the research discovery process that is driving new treatments and cures.



RECRUITING HIGHLY QUALIFIED PERSONNEL

Supporting the careers of the best and brightest Crohn's and colitis researchers across Canada.

- STUDENTSHIPS
- FELLOWSHIPS
- NEW INVESTIGATOR AWARDS
- CHAIRSHIPS



FINDING CAUSES AND TRIGGERS

Uncovering the multiple triggers that predict or lead to the onset of the disease.

- DISCOVERING ENVIRONMENTAL TRIGGERS
- DISCOVERING GENETIC MARKERS



DISCOVERING NOVEL TREATMENTS

Discovering new ways to block inflammation, treat complications, improve therapy, and create a healthy gut.

- BLOCKING INFLAMMATION
- CREATING HEALTHY GUT ECOSYSTEMS

IMPROVING LIVES

Getting the best care and symptom management in the hands of Crohn's and colitis patients.



HELPING MANAGE SYMPTOMS

Finding the best ways to get novel treatments in the hands of patients.

- TREATING COMPLICATIONS
- PREDICTING DISEASE COURSE



GETTING THE BEST CARE

Exploring new ways to provide the best treatments and multidisciplinary care model to patients.

- CREATING HEALTH SERVICE MODELS
- PROMOTING EVIDENCE-BASED PRACTICE



EDUCATING PROFESSIONALS

Ensuring that healthcare professionals have access to the very latest and best information.

- HOSTING MEDICAL CONFERENCES
- SUPPORTING IBD NURSES

CROHN'S AND COLITIS CANADA'S **GEM PROJECT**



Laura Shaver and Christopher Wood
Siblings in the GEM Project

Led by Dr. Ken Croitoru at Toronto's Mount Sinai Hospital, the Genetic, Environmental, Microbial (GEM) Project is a global research study that is bringing us closer to understanding the causes of Crohn's disease. The more we know about the possible causes, the closer we get to not only discovering a cure, but also to the ability to prevent the disease from taking hold in the first place.

The GEM Project is the world's largest prospective clinical study on Crohn's disease with the participation of 107 GEM recruitment sites located in Canada, Australia, Israel, New Zealand, Sweden, United Kingdom, and the United States. The study surpassed its goal of recruiting 5,000 healthy first-degree relatives of Crohn's patients. Researchers are closely monitoring the diet, immune function, intestinal barrier, genetics, microbiome, and environment of the study's 5,085 participants. Examining this data will help researchers identify possible triggers of the disease in participants that develop Crohn's. So far, 70 participants have been diagnosed with Crohn's, and researchers anticipate five more participants will

develop the disease by the end of 2018. Researchers are beginning to see biomarkers – changes in blood and tissue – that appear more frequently in participants who developed Crohn's.

Following an investment of nearly \$16 million in phases one and two, Crohn's and Colitis Canada and The Leona M. and Harry B. Helmsley Charitable Trust have invested \$6.4 million in the project's third phase. Known as the impact phase, this phase involves the continued monitoring of participants, further data analysis, verifying biomarkers, and the development of a predictive tool to identify people who will develop Crohn's even before symptoms appear. This will lead to early and more targeted therapies that can better treat the disease. While the GEM Project focuses on Crohn's, the research gained from this study will also feed into our understanding of ulcerative colitis. Crohn's and Colitis Canada and The Leona M. and Harry B. Helmsley Charitable Trust remain committed to continuing to support the GEM Project.

FUNDED RESEARCH



FINDING CAUSES AND TRIGGERS

What causes Crohn's and colitis? What are the triggers that worsen symptoms? These questions drive our researchers as they examine environmental triggers and genetic markers responsible for IBD.

IDENTIFYING IMMUNO-REACTIVE BACTERIAL SPECIES

Dr. Humberto Jijon | University of Calgary

\$50,000

■ (Year 1 of 1)

Dr. Jijon is using 16S bacterial sequencing technology to identify immuno-reactive bacterial species that may be perpetuating colitis.

INTESTINAL FIBROSIS

Dr. Simon Hirota | University of Calgary

\$125,000

■■■ (Year 1 of 3)

Dr. Hirota is researching how the pregnane X receptor (PXR), a sensor for chemicals of bacterial and environmental origin, regulates key pathways and/or mechanisms thought to contribute to intestinal fibrosis.

RISK FACTORS IMPACTING AIEC

Dr. Brian Coombes | McMaster University

\$125,000

■■■ (Year 1 of 3)

Dr. Coombes is studying how adherent-invasive Escherichia coli (AIEC) persists in the inflamed gut, and is making novel connections between Crohn's disease risk factors that impact how AIEC behaves in the host.

ROLE OF GUT MICROBES

Dr. Yasmin Nasser | University of Calgary

\$50,000

■ (Year 1 of 1)

Dr. Nasser is studying the role of gut microbes in the development of chronic pain in IBD and the interaction between gut microbes and TRPV1 on pain-sensing nerves.

MICROBE EFFECTS

Dr. Elena Verdu | McMaster University

\$125,000

■■■ (Year 2 of 3)

Dr. Verdu is studying the microbes in the gut (microbiota) to see how alterations in the microbiota affect inflammation specifically in UC.

ENVIRONMENTAL EFFECTS

Dr. Claude Asselin | Université de Sherbrooke

\$125,000

■■■ (Year 2 of 3)

Dr. Asselin is examining the effect of the environment on genes by altering proteins: two of which are HDAC.

REGULATING INFLAMMATION

Dr. Mark Silverberg | Mount Sinai Hospital

\$125,000

■■■ (Year 2 of 3)

Dr. Silverberg is studying patients who have undergone pouch surgery to look at changes in intestinal microbiome to determine the role they play in inflammation.

GENETIC MUTATIONS

Dr. Stephen Girardin | University of Toronto

\$125,000

■■■ (Year 3 of 3)

Dr. Girardin is studying the impact of the most common genetic mutation in IBD, NOD2, on the function of the small intestine.

FUNDED RESEARCH



GETTING THE BEST CARE

People living with Crohn's or colitis need access to the best treatments. These projects are looking to create evidence-based health service models to ensure patients receive the best care.

THE PATIENT PERSPECTIVE

Dr. Geoffrey Nguyen | Mount Sinai Hospital

\$125,000

■■■ (Year 1 of 3)

Dr. Nguyen is researching the aspects of health care that IBD patients find most important in order to improve patient-physician communication and aid policymakers in prioritizing IBD-related health initiatives.

ONLINE PEER MENTORING

Dr. Sara Ahola Kohut | The Hospital for Sick Children

\$125,000

■■■ (Year 1 of 3)

Dr. Ahola Kohut is researching the impact of the iPeer2Peer program, an online peer mentoring program for teens living with IBD.

OUTCOME MEASURES

Dr. Reena Khanna | Western University

\$67,000

■■■ (Year 1 of 3)

Dr. Khanna's research focuses on developing and validating outcome measures. Her project is directed towards developing a novel index for endoscopic assessment of disease activity in Crohn's disease using statistical methods, assessing alternative methods to score ulcers, comparing the reliability of the current endoscopic indices (SES-CD and CDEIS) and the novel index, and assessing their ability to detect changes in disease activity following treatment.

SAFER PREGNANCIES

Dr. Geoffrey Nguyen | Mount Sinai Hospital

\$125,000

■■■ (Year 2 of 3)

Dr. Nguyen is studying interventions that affect compliance with medication during pregnancy to improve overall outcomes.

DRUG EFFECTIVENESS

Dr. Laura Targownik | University of Manitoba

\$123,000

■■■ (Year 2 of 3)

Dr. Targownik is studying the effectiveness of the drugs currently prescribed to patients to look for connections between the use of specific drugs and whether their use is linked to reduced IBD-related hospitalizations, operations, and corticosteroid use.



2,134 articles and book chapters published by our researchers



16 hospitals and universities supported



48 research projects and initiatives funded

THE PACE NETWORK

The Promoting Access and Care through Centres of Excellence (PACE) network is a signature initiative by Crohn's and Colitis Canada. Through an investment of \$2.5 million over four years, we have created a network of IBD Centres of Excellence across the country. The five centres focus on addressing four existing gaps in how people living with Crohn's or colitis access care. The goal is for the best practices developed at the centres to be rolled out nationally, leading to transformative improvements to Canada's IBD healthcare system.

SERVICING REMOTE COMMUNITIES THROUGH TELEMEDICINE

Dr. Geoff Nguyen and his team at Mount Sinai Hospital are extending specialized Crohn's and colitis care to underserved rural and remote communities by using existing provincial telemedicine infrastructure to see patients remotely with the support of local healthcare providers.

MONITORING PATIENT HEALTH BETWEEN VISITS

Dr. John Marshall and Dr. Neeraj Narula at McMaster University are helping patients take a more active role in their health care by implementing an electronic self-reporting tool that allows patients and healthcare teams to better monitor the patients' disease between planned visits.

REDUCING CHRONIC STEROID USE

Dr. Richard Fedorak from the University of Alberta and Drs. Remo Panaccione and Cynthia Seow from the University of Calgary are working together to create and implement a clinical care pathway that offers healthcare providers guidelines on how to limit or avoid prescribing steroids to patients with IBD.

MEASURING HEALTH CARE ADVANCES

Dr. Alain Bitton and Dr. Waqqas Afif at McGill University are establishing quality indicators to measure the effectiveness of PACE initiatives, and are developing standardized guidelines and measures that all IBD clinics can use to assess their quality of IBD care.

Pictured from Left to Right:
Shelley Bouchard, RN;
Geoffrey C. Nguyen, MD, PhD, FRCPC, AGAF;
Peter Habashi, RN



I needed specialized care because of my complex disease. My family and I now have peace of mind because I have access to specialists who understand complex cases, without having to travel the long distance to the city.

Susan Foulds – Nipigon, Ontario





CONNECTING PATIENTS WITH SPECIALISTS IN RURAL AND REMOTE COMMUNITIES

In 2016, Crohn's and Colitis Canada launched the Promoting Access and Care through Centres of Excellence (PACE) program. This exciting new network was the first pan-Canadian network of its kind, with five centres of excellence tackling four gaps in IBD patient care. PACE aims to elevate and standardize the quality of care for all Canadians living with Crohn's or colitis.

The Telemedicine Program is one of the PACE projects making strides in improving IBD patient outcomes. Spearheaded at Mount Sinai Hospital by Dr. Geoffrey Nguyen with the support of Shelley Bouchard, PACE's IBD Telemedicine Coordinator, the program provides health care to underserved IBD patients living in rural and remote communities.

Since the program's launch, the telemedicine team has connected patients with specialists in over 70 host sites across Ontario. Whether it is providing a student away from home with access to their medication, or helping a senior with limited mobility in a rural community, the program ensures patients receive care that they might not otherwise be able to access. Through Ontario Telemedicine Network centres, these patients meet with specialty care teams including gastroenterologists, colorectal

surgeons, nurses, and dietitians. In some cases, patients have been able to receive specialty care within a week which is considerably less than the two-to-three month wait period many patients face.

The success of the Telemedicine Program over the past two years has been remarkable. And it is growing. The program has recently begun facilitating easy, at-home video conferencing. Led by Dr. Vivian Huang, and designed particularly for high-risk pregnancies, it is a novel and welcome approach to providing specialty services. The adoption of a digital self-monitoring app in IBD care within the Telemedicine Program is also an exciting new development. The app allows patients to regularly track their symptoms and communicate them back to their IBD team.

No matter where a patient lives, it is essential that they can access their healthcare team. Early disease detection and timely care can improve overall quality of life, and reduce the need for invasive and expensive surgeries. Given the tremendous success of the Telemedicine Program, Dr. Nguyen and Ms. Bouchard are now working with other PACE Centres of Excellence to make similar programs available to IBD patients across the country.

FUNDED RESEARCH



DISCOVERING NOVEL TREATMENTS

These grants discover new ways to block inflammation, treat complications, improve therapy, and create a healthy gut.

NANOMEDICINES

Dr. Pere Santamaria | University of Calgary

\$125,000
■■■ (Year 1 of 3)

Dr. Santamaria is researching the efficacy of nanomedicines, a new type of drug composed of very tiny particles, for the treatment of IBD in mice, by expanding disease-specific 'regulatory' white blood cells.

LEAKY GUT

Dr. Bruce Vallance | University of British Columbia

\$125,000
■■■ (Year 2 of 3)

Dr. Vallance is studying inflammasomes, which are proteins that are important in preventing leaky gut and defending against invading bacteria.

NANOPARTICLES

Dr. Stuart Turvey | British Columbia Children's Hospital

\$125,000
■■■ (Year 2 of 3)

Dr. Turvey is studying a new treatment by developing a nanoparticle that will reduce gut inflammation.

CONTROLLING INFLAMMATION

Dr. Theodore Steiner | University of British Columbia

\$125,000
■■■ (Year 2 of 3)

Dr. Steiner is studying the difference between types of inflammatory responses to bacteria in the gut. The goal is to harness the power of certain regulatory white blood cells (Tregs) to control inflammation.

REGULATING INFLAMMATION

Dr. Jean-Eric Ghia | University of Manitoba

\$125,000
■■■ (Year 3 of 3)

Dr. Ghia is studying the role of semaphorin, proteins involved in communications between cells in the nervous system, in regulating intestinal inflammation.

BACTERIA TRAP

Dr. Eytan Wine | University of Alberta

\$15,000
■■■ (Year 3 of 3)

Dr. Wine is using new technologies to locate and 'trap' bacteria that are recognized by the patient's own immune system.

FECAL TRANSPLANT

Michael Surette | McMaster University

\$110,000
■■■ (Year 3 of 3)


Dr. Surette is trying to determine the mechanisms by which fecal transplantation works.



96% of grants featured collaborations among leading scientists and partners across Canada



\$6.7 million invested in research



Pictured from Bottom to Top: Professor Deanna L. Gibson, Ph.D.; Candice Quin, PhD Candidate; Blake Birnie, MD Student; Natasha Haskey, PhD Student; Sandeep Gill, MSc Student; April Mahovlic, BSc Honors Student; Jacqueline Barnett, MSc Student; Mehrbod Estaki, PhD Candidate; and Anton Callaway, Ph.D. Research Associate

Many people living with Crohn's or colitis believe that their diet impacts their symptoms, but evidence-based nutrition guidelines are lacking. To this end, Crohn's and Colitis Canada has long supported the work of Dr. Deanna Gibson. The researcher and Associate Professor of Biology at the University of British Columbia is on a relentless search to uncover how different diets impact the symptoms of IBD.

While few research studies have found a single dietary factor as being protective or harmful for IBD, Dr. Gibson has uncovered specific types of fats that might be at play. Through her research, Dr. Gibson has identified harmful fats that contribute to inflammation in the gut, which cause flare-ups. Her research has pinpointed typical Western diets high in omega-6's as a key culprit.

With this knowledge, Dr. Gibson has begun recommending a Mediterranean diet for people living with ulcerative colitis. While the Mediterranean diet is notorious for being high in fat, Dr. Gibson explains that the types of fats in this particular diet support protective inflammation, meaning they do not contribute to flare-ups.

Understanding the effects of fat in IBD is important since fat restriction in a patient with IBD could be harmful to their health and nutritional status. This is why Dr. Gibson's work is so important. Crohn's and Colitis Canada believes dietary approaches for the prevention and management of IBD are urgently needed so that health professionals can provide sound nutritional guidance. We are proud to continue to support Dr. Gibson's clinical studies as she generates evidence to support dietary recommendations.

CAN A MEDITERRANEAN DIET REDUCE COLITIS?

FUNDED RESEARCH



HELPING MANAGE SYMPTOMS

These grants focus on treating complications and predicting the disease course of IBD.

EFFECT OF DIETARY FATS

Dr. Deanna Gibson | University of British Columbia

\$125,000

■■■ (Year 1 of 3)

Dr. Gibson is researching the effects of dietary fats on colitis both in isolation from each other and in combination as seen in the Mediterranean diet pattern.

STRESS+OPIOIDS = PAIN?

Dr. Stephen Vanner | Queen's University

\$125,000

■■■ (Year 2 of 3)

Dr. Vanner is investigating how stress and prescribed opioids can increase pain in the IBD patient.



EDUCATING PROFESSIONALS

We host medical conferences and support IBD nurses because we believe that true expertise requires continuously sharing the latest best practices and evidence-based information with healthcare professionals.

MEETING OF THE MINDS

In November 2017, Crohn's and Colitis Canada hosted its 7th annual Canadian Future Directions in IBD Conference together with Mentoring in IBD, which trains healthcare professionals and holds symposiums on the latest IBD research.

CANADIAN IBD NURSING COMMUNITY OF PRACTICE (CANIBD)

Supported by Crohn's and Colitis Canada, CANIBD is working to ensure people of all ages living with Crohn's or colitis in Canada receive high-quality clinical nursing care within a multidisciplinary team. As a community of practice of the Canadian Association of Gastroenterology Nurses and Associates (CSGNA), CANIBD supports nurses across Canada working in the field of IBD through awareness and education.

This year, CANIBD hosted a number of educational events including its annual conference held in conjunction with Meeting of the Minds in Toronto. The group also developed standards of practice for nurses treating IBD patients aimed at improving and standardizing patient care.

RESEARCH TOPICS IN GASTROINTESTINAL DISEASE MEETING

During Canadian Digestive Diseases Week, we supported the next generation of highly qualified IBD scientists by giving them an opportunity to present their research findings and engage in career development.



For every **\$1** we invested, **\$4** were leveraged from government and industry

THE NEXT GENERATION OF IBD RESEARCHERS

Simon Hirota, PhD

Strengthening IBD research in Canada requires supporting scientists at key stages in their careers. Part of our investment strategy is building the next generation of IBD scientists and clinicians. In collaboration with partners, Crohn's and Colitis Canada awards scholarships and fellowships to graduate students and early career scientists. This support ensures young investigators can continue pursuing careers in Crohn's and colitis research, leading to better treatments and cures for these diseases.

Dr. Simon Hirota, a researcher and professor at the University of Calgary, is one of the talented researchers Crohn's and Colitis Canada has supported since early in his career. Dr. Hirota began his career in gastrointestinal research in 2007 through a fellowship supported by Crohn's and Colitis Canada. He says that the support provided by Crohn's and Colitis Canada for over a decade has made a significant and positive impact on his career. In turn, his novel work is leading the way to new discoveries.

Since receiving a postdoctoral fellowship, Dr. Hirota has been the successful recipient of two major grants from Crohn's and Colitis Canada. As Dr. Hirota explains, this funding has helped focus his team's research on the understudied area of intestinal fibrosis. Up to 50 per cent of people living with Crohn's disease experience thickening of the connective tissue in their intestine, known as fibrosis. For many patients, it can lead to an obstruction requiring invasive surgery. The surgery itself is not a cure, and up to 50 per cent of patients require additional surgery down the road.

With this financial support from Crohn's and Colitis Canada, Dr. Hirota and his team have been unmasking the offenders in intestinal fibrosis in IBD. They have uncovered the mechanism that controls the process, and are taking their work a step further by figuring out why it occurs. They believe the microbiome may play a part, and are developing tools that will allow clinicians to predict whether or not a person with Crohn's is susceptible.

Dr. Hirota hopes his research will help patients with intestinal fibrosis avoid evasive surgery in the future. Crohn's and Colitis Canada looks forward to learning more from Dr. Hirota and continuing to support his important research.



FUNDED RESEARCH



RECRUITING HIGHLY QUALIFIED PERSONNEL

Crohn's and Colitis Canada finances researchers through all stages of their careers. We support the entire spectrum of IBD scholarship from undergraduate students all the way through to seasoned investigators.

CROHN'S AND COLITIS CANADA/ CANADIAN ASSOCIATION OF GASTROENTEROLOGY SUMMER STUDENTSHIP AWARDS

| | | |
|--|---|---------|
| Jessica Leung University of British Columbia | Crohn's and Colitis Canada Contribution | \$6,000 |
| Martin Danielov Pasev University of Alberta | Crohn's and Colitis Canada Contribution | \$6,000 |
| Jeremy Jerasi University of Alberta | Crohn's and Colitis Canada Contribution | \$6,000 |
| Eugene Mech McMaster University | Crohn's and Colitis Canada Contribution | \$6,000 |
| Andrea Nunez University of Calgary | Crohn's and Colitis Canada Contribution | \$6,000 |

CROHN'S AND COLITIS CANADA/ CANADIAN INSTITUTES OF HEALTH RESEARCH/ CANADIAN ASSOCIATION OF GASTROENTEROLOGY FELLOWSHIPS

| | | | | |
|---|--|----------|----------------------------|----------|
| Dr. Gabriella Leung The Hospital for Sick Children | Crohn's and Colitis Canada Contribution in 2017/2018 | \$22,500 | Total Funding in 2017/2018 | \$45,000 |
| Dr. Christopher Ma Western University & University of Calgary | Crohn's and Colitis Canada Contribution in 2017/2018 | \$27,500 | Total Funding in 2017/2018 | \$55,000 |
| Dr. Joannie Allaire University of British Columbia | Crohn's and Colitis Canada Contribution in 2017/2018 | \$45,000 | Total Funding in 2017/2018 | \$45,000 |

CROHN'S AND COLITIS CANADA/ CANADIAN INSTITUTES OF HEALTH RESEARCH/ CANADIAN ASSOCIATION OF GASTROENTEROLOGY NEW INVESTIGATOR AWARDS

| | | | | |
|---|--|----------|----------------------------|----------|
| Dr. Amy Metcalfe University of Calgary | Crohn's and Colitis Canada Contribution in 2017/2018 | \$35,000 | Total Funding in 2017/2018 | \$60,000 |
| Dr. Eric Benchimol Children's Hospital of Eastern Ontario | Crohn's and Colitis Canada Contribution in 2017/2018 | \$30,000 | Total Funding in 2017/2018 | \$60,000 |
| Dr. Johan Van Limbergen Dalhousie University | Crohn's and Colitis Canada Contribution in 2017/2018 | \$31,500 | Total Funding in 2017/2018 | \$60,000 |



GOVERNMENT PARTNERSHIPS

Crohn's and Colitis Canada works with the Canadian Institutes of Health Research (CIHR) to support multi-year team grants related to critical IBD issues. Our contribution to these grants demonstrates our confidence in this research and these talented teams of researchers.

CIHR PROGRAMMATIC GRANTS IN ENVIRONMENTS, GENES, AND CHRONIC DISEASE

Dr. Alain Stintzi | University of Ottawa

The diet-microbiome-gut axis in pediatric IBD

\$10,000

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. Ken Croitoru & Dr. Jennifer Gommerman | University of Toronto

Elucidating the gene-environment interactions that drive autoimmune disease among South Asian Canadians (The GEMINI Program)

\$10,000

Crohn's and Colitis Canada Contribution in 2017/2018

CIHR INFLAMMATION IN CHRONIC DISEASE TEAM GRANT

Dr. Bertus Eksteen | University of Calgary

Targeting chronic inflammation of the gut, liver, and joints

\$2,800

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. Ruth Ann Marrie | University of Manitoba

Critical illness in IBD, multiple sclerosis, and rheumatoid arthritis

\$2,800

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. John Esdaile | University of British Columbia

Preventing complications from inflammatory skin, joint, and bowel conditions

\$2,900

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. David Park | University of Ottawa

Insights into Parkinson's disease, Crohn's disease, and leprosy

\$2,800

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. Mark Swain | University of Calgary

Brain dysfunction in chronic inflammatory disease

\$2,900

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. John Brumell | The Hospital for Sick Children

NADPH oxidase function in the pathogenesis of pediatric IBD and Juvenile Idiopathic Arthritis

\$2,900

Crohn's and Colitis Canada Contribution in 2017/2018

Dr. Dana Philpott | University of Toronto

Linking innate immunity and inflammation to chronic disease

\$2,900

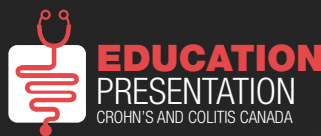
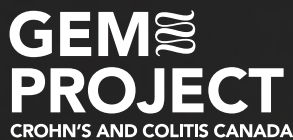
Crohn's and Colitis Canada Contribution in 2017/2018

CROHN'S AND COLITIS CANADA

The only national, volunteer-based charity focused on finding the cures for Crohn's disease and ulcerative colitis and improving the lives of children and adults affected by these diseases. We are one of the top two health charity funders of Crohn's and colitis research in the world, investing nearly \$122 million in research since 1974, leading to important breakthroughs in genetics, gut microbes, inflammation and cell repair research as well as laying the groundwork for new and better treatments. We are transforming the lives of people affected by Crohn's and colitis (the two main forms of

inflammatory bowel disease) through research, patient programs, advocacy, and awareness. Our Crohn's & Colitis – Make it stop. For life. campaign has achieved \$70 million (or 70%) at year five of the seven year campaign and funds raised are already advancing our mission. Visit crohnsandcolitis.ca for more information.

Crohn's and Colitis Canada funds research projects and patient programs that fight Crohn's and colitis today, while working towards a future free of these diseases. Your donations fuel our efforts.



Crohn's and Colitis Canada
Crohn et Colite Canada

To donate now please call 1-800-387-1479 or visit crohnsandcolitis.ca

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