GUT CELL ATLAS A Crohn's Disease Consortium

FUNDED BY THE HELMSLEY CHARITABLE TRUST

Annual Convening 2024 September 12–13, 2024

Hosted by The Leona M. and Harry B. Helmsley Charitable Trust

Convene 237 Park Ave, New York, NY 10017

Thursday, September 12, 2024

8:00 AM	Breakfast	
9:00 AM	Welcome Remarks	The Forum
9:30 AM	Insights from Single-Cell Biology (Immune Focus)	The Forum
9:30 AM	Human Cell Atlas Immune Bionetwork update on atlas assembly and roadmap Alexandra-Chloé Villani, PhD, Broad Institute	
10:00 AM	Towards a single-cell atlas of intestinal immune inductive and effector sites in health and Crohn's disease Urs Mörbe, PhD, Lund University	
10:15 AM	Understanding hematopoietic stem cells in Crohn's disease Louis Cohen, MD, Icahn School of Medicine at Mount Sinai	
10:30 AM	A multi-tissue perspective of the immune system's dysregulation in Crohn's disease Lucia Ramirez Navarro, Wellcome Sanger Institute	
10:45 AM	Panel Q&A	
11:00 AM	Coffee Break	
11:30 AM	Annotation & Integration	The Forum
11:30 AM	Lessons learned from gut integration José Ordovas-Montañes, PhD, Boston Children's Hospital	
11:50 AM	Overview of HCA data ecosystem & Cell Annotation Platform Alexandra-Chloé Villani, PhD, Broad Institute	
12:10 PM	Atlasing survey Group activity	
12:30 PM	Lunch	
1:30 PM	Insights from Spatial Biology	The Forum
1:30 PM 1:30 PM	Insights from Spatial Biology Developing spatial multi-omics technologies for tracking disease progression Sanja Vickovic, PhD, Columbia University	The Forum
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Friday, September 13, 2024

8:00 AM	Breakfast	
9:00 AM	Welcome Remarks	The Forum
9:15 AM	Single-Cell Potpourri	The Forum
9:15 AM	Computational Genomics Martin Hemberg, PhD, Brigham and Women's Hospital	
9:45 AM	Development of deep learning based computational models for mapping single-cell spatial atlases of Crohn's diseas Yuankai Huo, PhD, Vanderbilt University	se
10:00 AM	Comparative transcriptomics of 27 treatment-naïve Crohn's disease patients across three tissue compartments Savannah Washburn, Georgia Institute of Technology	
10:15 AM	Distinct cellular and fibrotic changes in fibrostenosing Crohn's disease Shahida Din, MBChB, FRCP, PhD, Western General Hospital Edinburgh	
10:30 AM	TL1A-activated T cells as an upstream regulator of perianal fistulizing disease-associated changes in the rectum of Crohn Victoria Gudiño, PhD, IDIBAPS	's disease patients
10:45 AM	Panel Q&A	
11:00 AM	Coffee Break	
11:30 AM	Atlasing Survey Discussion Groups The Forum, The Library, The Ini	novation Space
11:30 AM 12:30 PM		novation Space
	Lunch	novation Space The Forum
12:30 PM	Lunch Insights from Single-Cell Biology (Epithelial Focus)	
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About the Gut Cell Atlas Crohn's Disease Consortium

This consortium of Helmsley grantees aims to catalogue the many cell types in the small and large intestines of Crohn's disease patients. It is part of the pathbreaking global Human Cell Atlas effort, which is transforming what we know about cells and their function in human health. The Helmsley Charitable Trust is focused on finding a cure for Crohn's disease. This is a long-term pursuit, so in parallel we are dedicated to improving patients' lives today. The creation of a Crohn's Disease Gut Cell Atlas offers tremendous potential to achieve both goals. It will enable better understanding of the disease and spur new, more personalized treatments on the path to prevention and a cure — not just for Crohn's disease, but for improving gut health overall.

THE LEONA M. AND HARRY B. HELMSLEY CHARITABLE TRUST

About Helmsley

The Leona M. and Harry B. Helmsley Charitable Trust aspires to improve lives by supporting exceptional efforts in the United States and around the world in health and select place-based initiatives. Since beginning active grantmaking in 2008, Helmsley has committed more than \$4.5 billion for a wide range of charitable purposes. Helmsley's Crohn's Disease Program supports impactful ideas and mobilizes a global community committed to improving the lives of Crohn's disease patients while pursuing a cure. For more information, visit helmsleytrust.org.

Thank You

We truly appreciate all you have accomplished to advance our collective knowledge of Crohn's disease and move the world closer to a cure. The path to a cure is complex and the work that you and your teams are advancing is critical to achieving this goal and to improving the lives of patients along the way.

On behalf of the Helmsley Charitable Trust and the patients we support, we sincerely **thank you!**

Connect with us!

- Learn more about the Crohn's Disease Program: helmsleytrust.org/crohns-disease/
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