


## Curriculum vitae

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**Name:** Ezra Burstein, M.D., Ph.D.

**Office Address:** 5323 Harry Hines Blvd.  
Room J5.136A  
Dallas, TX 75390-9151

**Work Phone:** +1-214-648-2008 (Office), +1-214-648-8005 (Laboratory)

**Work E-Mail:** ezra.burstein@utsouthwestern.edu

**Work Fax:** 214-648-2022

**Place of Birth:** Lima, Peru

**Overall career profile:** I am a physician-scientist with training and expertise in the area of molecular immunology. I am clinically active and see patients with IBD in my practice, while in the laboratory my work is focused on basic mechanisms that control inflammatory responses in human disease, particularly inflammatory bowel disease. In addition to these activities, I have served in a number of leadership positions at my institution, currently as Division Chief of Digestive and Liver Diseases, and at several professional and national organizations as noted elsewhere in this CV.

**Research Interest:** My earliest work was focused on the regulation of the transcription factor NF- $\kappa$ B, which plays a central role in the inflammatory cascade. In particular, we investigated pathways that mediate the termination of NF- $\kappa$ B activity, leading to the identification of COMMD1 (formerly Murr1) as a negative regulator of the NF- $\kappa$ B pathway (*Nature*, 2003). This led us to identify that it plays a key role in terminating NF- $\kappa$ B dependent transcription through ubiquitination (*EMBO J*, 2007). Furthermore, we identified that these steps are regulated by phosphorylation and acetylation of the NF- $\kappa$ B subunits (*Genes & Dev*, 2008; *Oncogene*, 2012). Altogether, these studies uncovered key aspects of this critical pathway which are now recognized as canonical components of NF- $\kappa$ B regulation.

This work also led to the discovery of the COMMD protein family, which is defined by a unique domain (*JBC*, 2005). Nearly at the same time as our work implicated COMMD1 in immune regulation, genetic studies identified this factor as playing a central role in copper metabolism, through unclear mechanisms. We discovered that COMMD1 regulates cellular copper through a previously unknown protein complex that controls recycling of proteins from the endosomal compartment – we identified and reported the existence of this complex known as the CCC protein assembly (*MBoC*, 2015). Thereafter, we identified that CCC regulates a novel cargo recognition system that we named Retriever (*Nat Cell Bio*, 2017) and most recently we described that CCC works through the regulation of endosomal levels of phosphoinositide-3-phosphate (*Nat Comm*, 2019). Building on these discoveries, we were able to produce a high-resolution structure of Retriever, and an AlphaFold Multimer molecular model for its interaction with CCC (*Nat Struct Mol Bio*, 2024).

In addition to molecular events involved in NF- $\kappa$ B regulation, the lab investigates the genetic and molecular basis of human disorders of immune dysfunction. We demonstrated that CCDC22 is required for optimal I $\kappa$ B protein degradation and that mutations in this gene result in altered immune activation in humans (*JCI*, 2013). We also found that X-linked reticulate pigmentary disorder, an immunodeficiency and autoinflammatory syndrome that results in infantile ulcerative colitis, is due to mutations in the

catalytic subunit of DNA polymerase- $\alpha$ , and in the process, we identified a surprising role for this polymerase in the interferon pathway (*Nat Immunol*, 2016) and in NK cell regulation (*JCI Insight*, 2019). Through similar efforts we identified a new mutation that results in a Mendelian form of ulcerative colitis through effects in neuroendocrine function in the GI tract (*eLife*, 2019).

### **Education**

Year	Degree	Field of Study	Institution
4/1986-3/1994	M.D.	Medicine	Cayetano Heredia University, Lima, Peru
4/1988-3/1992		Science and Philosophy	Cayetano Heredia University, Lima, Peru
1/2012-5/2013	Ph.D.	Medical Sciences - <i>Molecular Genetics</i>	University of Groningen, Groningen, The Netherlands

### **Postdoctoral and Other Training**

Years	Titles	Specialty/Discipline	Institution
7/1995-6/1998	Residency	Internal Medicine	UT Southwestern Medical Center
7/1998-7/2001	Fellowship	Gastroenterology	University of Michigan Medical School
3/2000-7/2001	Research Fellowship	Immunology <i>Mentor: Gary Nabel</i>	Vaccine Research Center, NIH
5/2002-9/2004	Research Fellowship	Immunology <i>Mentor: Colin Duckett</i>	University of Michigan Medical School

### **Professional Development Training**

Year(s)	Course or Program, Degree if applicable	Institution
12/2012-12/2013	LEAD program (Leadership course)	UT Southwestern Medical Center

### **Faculty Academic Appointments**

Year(s)	Academic Title	Department	Academic Institution
2002-2004	Lecturer	Internal Medicine	University of Michigan Medical School
2004-2008	Assistant Professor	Internal Medicine	University of Michigan Medical School
2008-2010	Assistant Professor	Internal Medicine, and Molecular Biology	UT Southwestern Medical Center
2010-2017	Associate Professor with Tenure	Internal Medicine, and Molecular Biology	UT Southwestern Medical Center
2017-	Professor with Tenure	Internal Medicine, and Molecular Biology	UT Southwestern Medical Center

### **Appointments at Hospitals/Affiliated Institutions**

<u>Past</u>			
Year(s)	Position Title	Department/Division	Institution
2002-2008	Staff Physician	Internal Medicine / Gastroenterology	University of Michigan Medical Center  Ann Arbor VA Medical Center
<u>Current</u>			
2008-	Staff Physician	Internal Medicine / Digestive & Liver Diseases	UTSW / Clements University Hospital  Parkland Health and Hospital System

### **Other Professional Positions**

Year(s)	Position Title	Institution
2021-	Member, Data Safety Monitoring Board. <i>Seeded Cells on Matrix Plug Treating Crohn's Perianal Fistulas (STOMP-II)</i> ClinicalTrials.gov Identifier: NCT04847739	Abovis Bio, LLC

### **Current Licensure and Certification**

#### Licensure

Year(s)	State
2002-2008	State of Michigan Medical License
2008-	State of Texas Medical License

#### Board and Other Certification

Year(s)	Specialty	Certifying Organization
1994	Steps 1 and 2	US Medical Licensing Examination (USMLE)
1995	ECFMG Accreditation	Educational Committee for Foreign Medical Graduates (ECFMG), 0-521-098-4
1998	Step 3	USMLE
1999 and 2011	Internal Medicine	American Board of Internal Medicine (ABIM), Candidate No. 187747
2002, 2011, 2021	Gastroenterology	ABIM, Candidate No. 187747

### **Honors and Awards**

Year	Name of Honor/Award	Awarding Organization
1994	Valedictorian of Medical School Class	Cayetano Heredia University

1998	John S. Miller Award for Outstanding Performance as a House Officer	UT Southwestern Medical Center, Department of Internal Medicine
2003	AGA Research Scholar Award	Foundation for Digestive Health and Nutrition, American Gastroenterological Association (AGA)
2005	Research Excellence in GI and Liver (REGAL) Award	University of Kansas Medical Center
2008	Disease Oriented Research Scholar (DOCS) Award	UT Southwestern Medical Center
2010	Helmsley Scholar	Crohn's and Colitis Foundation (CCF)
2012	Elected Member	American Society for Clinical Investigation (ASCI)
2017	Physician of the Year	CCF, North Texas Chapter
2019	Berta M. and Cecil O. Patterson Chair in Gastroenterology	UT Southwestern Medical Center
2021	Annual Honoree ("Doctors Who Have Made an Extraordinary Impact in the Lives of Their Patients")	Chabad of Frisco, Texas
2021	Physician Champion of the Year	CCF, North Texas Chapter
2022-2024	Best Doctors in Dallas	D Magazine
2024	Elected Member	Association of American Physicians (AAP)

**Major Administrative/Leadership Positions**

Year(s)	Position Title	Institution
2016-	Chief, Division of Digestive and Liver Diseases	UT Southwestern Medical Center
2024-	Director, The Jean Wilson Society – Physician Scientists in Internal Medicine	UT Southwestern Medical Center
2024-	Director, Center for the Study of Inflammation and Digestive Diseases	UT Southwestern Medical Center
2025-	Director, MD Scientist Training Program <i>University-wide program in the Dean's office</i>	UT Southwestern Medical Center

**Committee Service** (*Member, unless noted otherwise*)

Year(s)	Name of Committee	Institution/Organization
<u>UT Southwestern</u>		
2008-2012	GI Fellowship Research Committee	Division of Digestive & Liver Diseases
2011-2012	Institutional Biosafety Committee and Biological and Chemical Safety Advisory Committee	Environmental Health and Safety
2012-2014	<i>Chair</i> , Faculty Mentorship Committee for Vincent Aguirre (Assistant Professor)	Department of Internal Medicine

2014-2015	Search Committee for Chief of Nephrology <u>Outcome</u> – Appointment of Dr. Orson Moe (Internal)	Department of Internal Medicine
2012-2016	GI Fellowship Curriculum Committee	Division of Digestive & Liver Diseases
2012-2015	<i>Chair</i> , Faculty Mentorship Committee for Yonas Getachew	Department of Internal Medicine
2014-2016	<i>Chair</i> , Faculty Mentorship Committee for Luke Engelking	Department of Internal Medicine
2015-2016	<i>Chair</i> , Faculty Mentorship Committee for Emre Turer	Department of Internal Medicine
2018-2019	Search Committee for Chief of Pediatric Gastroenterology <u>Outcome</u> – Appointment of Dr. Bradley Barth (Internal)	Department of Pediatrics
2018	Physician-Scientist Incentive Compensation Plan Committee	Department of Internal Medicine
2019-2020	UT Southwestern Clinical Strategic Planning - Enterprise Provider Platform Workgroup	UT Southwestern Medical School
2019-	University and Professional Billing Compliance Committee	UT Southwestern Standing Committee and a UT Southwestern Medical Group Board Committee
2019-	Post-Tenure Review Committee	UT Southwestern Medical School
2020-2021	<i>Chair</i> , Search Committee for Chief of Nephrology <u>Outcome</u> – Appointment of Dr. Samir Parikh (BIDMC – HMS)	Department of Internal Medicine
2020-2021	Search Committee for Chair of Obstetrics and Gynecology <u>Outcome</u> – Appointment of Dr. Catherine Spong (Internal)	UT Southwestern Medical School
2020-2021	Clinical Scholar Incentive Compensation Plan, Committee Member	Department of Internal Medicine
2020-2023	Promotion & Tenure Committee	UT Southwestern Medical School
2020-	Institutional Award Nomination Committee	UT Southwestern Medical School
2021-	Faculty Tribunal	UT Southwestern Medical School
2023-	Search Committee for Chair of Radiology <u>Outcome</u> – Appointment of Dr. Martin Pomper (Johns Hopkins)	UT Southwestern Medical School

Hospital

2011-2013	<i>Chair</i> , Pharmacy & Therapeutics GI Subcommittee	Parkland Memorial Hospital
2014-2015	Pharmacy & Therapeutics GI Subcommittee	Parkland Memorial Hospital

State/Regional

2013- Medical Advisory Committee

CCF, North Texas Chapter

National/International

*None other than professional societies*

**Professional Societies**

Dates	Society membership
1998-2005	American Society of Gastrointestinal Endoscopy (ASGE)
1999-2005	American Society of Internal Medicine (ASIM)
1999-2014	American College of Gastroenterology (ACG)
2006-2016	Gastroenterology Research Group (GRG)
1999-	American Gastroenterological Association (AGA)
2012-	American Society for Clinical Investigation (ASCI)
2014-	American Society for Cell Biology (ASCB)
2014-	American Association for the Study of Liver Diseases (AASLD)
2024-	Association of American Physicians (AAP)

Dates	Committee service ( <i>Member, unless noted otherwise</i> )
2012-2015	Diversity Committee, AGA
2014-2016	Future Leaders Program AGA, <i>Advisory Board Member</i>
2015-2018	Research Policy Committee, AGA
2018-2019	Society for Target and Drug Discovery, <i>Board Member</i>
2022	Future Leaders Program AGA, <i>Selected mentor</i>

Dates	Fellowships
2016-	AGA Fellow (AGAF)

**Community Engagement**

Year(s)	Role	Organization or institution
2007	Co-chair, Annual Campaign Event	Maimonides Society
	<i>Philanthropic group of local physicians in Washtenaw County, Michigan</i>	
2013-2014	Member of the Board	Congregation Shaare Tefilla
	<i>A local synagogue in Dallas</i>	
2010-2016	Member, Board of Trustees	Akiba Academy of Dallas
	Chair, Head Support and Evaluation Committee	
	<i>Private school in Dallas providing services from pre-K to middle school</i>	
2021-2023	Member of the Board	Bikur Cholim of Dallas

*Non-profit organization in Dallas providing support to patients and their families in the greater DFW area.*

- 2010- Member of the Board Autistic Care  
*A private foundation supporting care and research to benefit patients with Autism*
- 2020- Medical Advisory Committee Mayberry Memorial  
*Private foundation dedicated to education and awareness of Lynch syndrome*
- 2022- Parents Council Yeshiva University, New York  
*An initiative that brings the parents of current undergraduate students into conversation with YU's senior administration, Deans, and staff.*

**Educational Activities**

**1. Direct Teaching**

Date	Course Name, Rotation or Session Topic	Role	Number of Instruction hours	Primary Learner Audience (number)	Department or Organization
<u>Medical and Graduate School (UME) Course Instruction, Small Group Instruction, Clinical Supervision</u>					
2005, 2008	<u>Gastroenterology Sequence</u>  <i>Case-based learning</i>	Instructor	2 hr/yr	Small Group teaching sessions for second year medical students, ~ 10 students.	University of Michigan Medical School
2015-	<u>Integrated Medicine Course on Gastrointestinal System and Nutrition</u>  <i>Colon cancer, Polyposis syndromes, Dysphagia, Gastroesophageal reflux, Neuropathies and Myopathies in the GI tract, Maldigestion and Malabsorption, Defects in digestion – mouth and stomach.</i>	Course Co-director (2015-2016) Lecturer (2015-present)	4-12 hr/yr	Second year medical students, ~ 160 students.	UT Southwestern Medical School
<u>Graduate Medical Education (GME) Course Instruction, Small Group Instruction, Clinical Supervision</u>					

2006-2008	Quantitative Physiology 419/519  <i>Lectures in GI Physiology and Energy Metabolism</i>	Lecturer	8 hr/yr	Graduate level Biomedical Engineering course, ~ 120 students	University of Michigan School of Engineering.
2010-2016	Clinical Immunology <i>Lectures on Mucosal Immune Disorders</i>	Lecturer	4 hr/yr	Immunology Graduate Program, ~10 students	Graduate School of Biomedical Sciences, UT Southwestern
2013-	Responsible Conduct of Research  <i>Small group discussions on research ethics</i>	Lecturer	1-2 hr/yr	Graduate students and post-doctoral fellows, small group session, ~ 10 students.	Graduate School of Biomedical Sciences, UT Southwestern
2002-2008	Inpatient teaching of Internal Medicine	Supervisor	100 hr/yr	Third and Fourth year Medical students, Internal Medicine Interns and Residents, ~6 learners.	Ann Arbor VA Medical Center, Ann Arbor, Michigan / University of Michigan Medical School
2002-2008	IM Residency Noon conference series  <i>Core topics in gastroenterology</i>	Lecturer	2 hr/yr	Third and Fourth year Medical students, Internal Medicine Interns and Residents, ~30 learners.	University of Michigan Medical School
2002-	Inpatient teaching of Gastroenterology  <i>Rounding in the Gastroenterology Consult Services</i>	Supervisor	100 hr/yr	Medical Students, Internal Medicine Residents and GI Fellows, ~4-8 learners	- Ann Arbor VA Medical Center (2002-2008) - Parkland Memorial Hospital (2008-present) - Clements University Hospital (2015-present)
2002-	Outpatient teaching of Gastroenterology  <i>Staffing clinic-based care in GI clinics at various locations</i>	Supervisor	80 hr/yr	Medical Students, Internal Medicine Residents and GI Fellows, ~1-6 learners	- University of Michigan Medical Center (2002 & 2008) - Ann Arbor VA Medical



					Center (2002-2008) - Parkland Memorial Hospital (2008-present) - UT Digestive and Liver Diseases Clinic (2015-present)
2002-	Endoscopy Training  <i>Precepting endoscopy procedures, including hands-on training</i>	Supervisor	80 hr/yr	GI fellows and surgery residents, ~ 1-2 learners	- University of Michigan Medical Center (2002) - Ann Arbor VA Medical Center (2002-2008) - Parkland Memorial Hospital (2008-present) - Clements University Hospital (2015-present)
2012-	Clinical GI Fellowship Core Curriculum Program  <i>Lectures on IBD pathogenesis, gut immunology, basics of molecular biology, GI cancer syndromes, and others</i>	Lecturer	1-3 hr/yr	GI fellows and faculty, ~40-60 attendees	UT Southwestern Medical Center.
<u>Instructor in Continuing Medical Education (CME), Faculty Development, National Educational Symposia</u>					
2009	Advances in IBD: Inflammation and IBD: How does it all start?	Lecturer	1h	80 attendees	UT Southwestern Medical Center

## 2. Curriculum Development

Date	Course Name or Curriculum Product	Role	Purpose	Primary Learner Audience	Organization or Institution
2015-2016	Integrated Medicine Course on Gastrointestinal System and Nutrition	Course Co-director, Co-led the curriculum restructure of this course.	This was part of a medical school-wide curricular reform to integrate clinical and basic science teaching by organ system.	Second year medical students, ~ 160 students.	UT Southwestern Medical School

### 3. Mentoring and Advising

Date	Mentee Name	Mentee Level/ Program and Institution	Role	Mentee Outcomes, Current Position
<i>Undergraduate Students</i>				
2006	Victoria Sultani	Undergraduate student, Wellesley College, Wellesley, MA.	Summer research internship	Graduated college, current position unknown
2007	Mark Fogel	Undergraduate student, University of Michigan	Summer research internship	Graduated college, current position unknown
2008	Alisa Sumkin	Undergraduate student, University of Michigan	Summer research internship	Graduated college, Completed DO and Radiology training
2009-2011	Mohammad Yousef	Undergraduate student, UT Arlington, Arlington, TX.	Summer research internship	Graduated college, Completed MD at Texas Tech and Gastroenterology training at Texas Tech
2010	Reid Weisberg	High school student, St. Marks High School, Dallas, TX.	Summer research internships	Graduated college, Completed MD at Baylor College of Medicine and is currently in Rheumatology training at Columbia
2014		Undergraduate student, UT Austin, Austin, TX.		

2010	Mary Lovelace	Undergraduate student, UT Dallas, Richardson, TX.	Summer research internship	Graduated college, current position unknown
2012	Nick Norris	Undergraduate student, Baylor University, Waco, TX.	Summer research internships	Graduated college, Completed MD at UT Southwestern and is currently in Pediatric Gastroenterology training at UT Southwestern
2015		Medical Student at UT Southwestern Medical Center		
2013	Margaret Koenecke	Undergraduate student, Kenyon College, Gambier, OH	Summer research internship	Graduated college, Completed PhD at Princeton, is currently Senior Associate at Research Bridge Partners
2013	Kevin Chow	High school student, Coppell High School, Copper, TX	Summer research internship	Attended Rice University, current position unknown
<i>PhD students</i>				
2006-2009	Graham Brady	MD/PhD student, Program in Molecular and Cellular Pathology, University of Michigan	Ph.D. Dissertation Committee member	Graduated MD/PhD, Assistant Professor of Medicine, University of Michigan
2006-2008	Nathan Gluck, M.D.	PhD student, Program in Biochemistry, Hebrew University in Jerusalem – Israel.	Ph.D. Co-mentor (Saul Yedgar and Ezra Burstein)	Graduated PhD, <i>Current position:</i> Staff Physician. Sourasky Tel Aviv Medical Center. Senior Lecturer, Tel Aviv University School of Medicine – Israel.
2006-2008	Rebecca Csomos	PhD student, Program in Molecular and Cellular Pathology, University of Michigan	Ph.D. Dissertation Committee member	Graduated PhD, Subsequent DVM. Currently in veterinary private practice
2014	Barrett Updegraff	PhD candidate, Program in Genetics and Development, UT Southwestern Medical Center.	Chair of the Qualifying Exam Committee.	
2014-2017	Elise Burger	MD/PhD student, Program in Immunology, UT	Ph.D. Dissertation Committee member	Graduated MD/PhD, Residency training in Dermatology at UCSD

		Southwestern Medical Center		
2015-2018	William McAlpine	MD/PhD student, Program in Immunology, UT Southwestern Medical Center	Ph.D. Dissertation Committee member	Graduated MD/PhD, Residency training in Internal Medicine at Duke
2016-2019	Caroline Gillis	PhD student, Program in Molecular Microbiology, UT Southwestern Medical Center	Ph.D. Dissertation Committee member	Graduated PhD, Scientist at Novome Biotechnologies
2016-2019	Xintao Tu	PhD student, Program in Molecular Microbiology, UT Southwestern Medical Center	Ph.D. Dissertation Committee member	Graduated PhD, Senior Scientist at Merck
2017	Sushobhna Batra.	PhD candidate, Immunology Graduate Program, UT Southwestern Medical Center.	Member the Qualifying Exam Committee.	
2018	Virginia Ann Ray	PhD student, Program in Molecular Microbiology, UT Southwestern Medical Center	Rotation Student	Joined Dr. Sebastian Winter's lab, Dept of Microbiology, UT Southwestern. Did not graduate – changed career to clinical research
2018	Andrew Chung	PhD candidate, Program in Genetics and Development, UT Southwestern Medical Center.	Member the Qualifying Exam Committee.	
2018-2021	Qi Liu	PhD student, Program in Molecular Biology, Sichuan University, Chengdu – China	Ph.D. Co-mentor (Da Jia and Ezra Burstein)	Graduated PhD, <i>Current position:</i> Post-doctoral fellow with E. Burstein at UT Southwestern
2019-2022	Savannah Taylor	MD/PhD student, Program in Molecular Microbiology, UT Southwestern Medical Center	Ph.D. Dissertation Committee member	Defended successfully her PhD, still in medical school
2020 -	Hannes Buck	PhD student, Program in Cellular and Molecular Biology,	Rotation Student (2020)	Joined Dr. Ezra Burstein and Dr. Jen Liou's labs (jointly mentored), Dept of

		UT Southwestern Medical Center	Ph.D. Co-mentor (Jen Liou and Ezra Burstein)	Internal Medicine and Dept of Physiology, UT Southwestern. Currently in training
2020-2024	Yubo He	PhD student, Program in Immunology, UT Southwestern Medical Center	Ph.D. Dissertation Committee member	Still in training with Dr. Alec Zhang, Dept of Physiology, UT Southwestern
2021	Mridula Annaswamy Srinivas	PhD candidate, Immunology Graduate Program, UT Southwestern Medical Center.	Member the Qualifying Exam Committee.	
2022	Zhen Tang	PhD student, Program in Immunology, UT Southwestern Medical Center	Rotation Student	Joined Dr. Nan Yan's lab, Dept of Immunology, UT Southwestern. Currently in training
2022	Animesh Paul	PhD candidate, Immunology Graduate Program, UT Southwestern Medical Center.	Member the Qualifying Exam Committee.	
2023	Gabby Quinn	PhD candidate, Immunology Graduate Program, UT Southwestern Medical Center.	Member the Qualifying Exam Committee.	Joined Lora Hooper's lab, Streilein Award for Best Performance on the IGP Qualifying Exam. Currently in training.
<u>Medical Students</u>				
2008	Javier Villafuerte	Visiting student to University of Michigan from Cayetano Heredia University, Lima - Peru	Summer research internship	Completed MD at Cayetano Heredia University and is currently Assistant Professor of Medicine at BIDMC / Harvard
2013, 2016	Ernesto Llano	Medical Student at UT Southwestern Medical Center	Summer research internships	Completed MD at UT Southwestern and is currently a Instructor in Internal Medicine / Digestive & Liver Diseases at UT Southwestern
2017	Meera Iyengar	Medical Student at UT Southwestern Medical Center	Summer research internship	Completed MD at UT Southwestern and is currently a Resident in IM/Peds at Indiana University

2018	Jacob Welch	Medical Student at UT Southwestern Medical Center	Summer research internship	Completed MD at UT Southwestern and is currently an Internist in Private Practice in Colorado
2019	Rafael De Souza	Medical Student at UT Southwestern Medical Center	Summer research internship	Completed MD at UT Southwestern and is currently a resident in Anesthesiology at UT Southwestern
<i>Postdoctoral scholars</i>				
2005-2007	Gabriel Maine, Ph.D.	Fellow at University of Michigan	Post-doctoral fellowship	Associate Professor, Department of Pathology. Oakland University School of Medicine. Rochester, Michigan. Director, Immunophenotyping Laboratory. Department of Clinical Pathology. Beaumont Hospital. Royal Oak, Michigan.
2005-2013	Xicheng Mao, Ph.D.	Fellow at University of Michigan and at UT Southwestern Medical Center	Post-doctoral fellowship	Bank Business Intelligence Analyst at USAA. Dallas, Texas.
2006	Gopakumar Iyer, M.D.	Internal Medicine Resident at University of Michigan	Research Rotation	Completed IM and Heme-Onc training, Currently Associate Professor at Weill Cornell and Attending at Memorial Sloan Kettering Cancer Center. New York, NY.
2006-2007	Aparna Repaka, M.D.	Fellow at University of Michigan	Post-doctoral fellowship	Clinical Associate Professor, Boston University and Gastroenterology Section at VA Boston Healthcare System, Boston, Massachusetts.
2008-2009	Iram Zaidi, Ph.D.	Fellow at University of Michigan and at UT	Post-doctoral fellowship	Current position unknown.

		Southwestern Medical Center		
2007-2013	Haiying Li, Ph.D.	Fellow at University of Michigan and at UT Southwestern Medical Center	Post-doctoral fellowship	Alliance Manager, Office of Technology Development. UT Southwestern Medical Center. Dallas, Texas.
2010	Nathalie Urrunaga, M.D.	Internal Medicine Resident at UT Southwestern Medical Center	Research Rotation	Completed IM training at UT Southwestern. Currently is Assistant Professor, Department of Medicine, Division of Gastroenterology and Hepatology, University of Maryland, Baltimore, Maryland.
2010-2012	Lillienne Chan, M.D.	Pediatric Gastroenterology Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Private practice (GI Alliance). Dallas, Texas.
2010-2014	Peter Starokadomskyy, Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Senior Scientist, Kyverna. San Francisco, California.
2011-2012	Avegail Flores, M.D.	Gastroenterology fellow at UT Southwestern Medical Center	Research project	Completed Gastroenterology training at UT Southwestern, currently Assistant Professor, Department of Medicine, Division of Gastroenterology, Baylor College of Medicine, Houston, TX.
2011-2012	Fiona McDonald, Ph.D.	Visiting Professor	Sabbatical year	Professor and Chair, Department of Physiology. University of Otago, New Zealand.
2012-2015	Amika Singla, Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Instructor, Department of Internal Medicine, Division of Digestive & Liver Diseases. UT Southwestern Medical Center. Dallas, Texas.

2013	Anh Nguyen, M.D.	Internal Medicine Resident at UT Southwestern Medical Center	Research project	Completed IM and Gastroenterology training at UT Southwestern, currently Staff Physician. Baylor University Medical Center. Dallas, TX
2013-2015	Luis Sifuentes-Dominguez, M.D.	Pediatric Gastroenterology Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Assistant Professor, Department of Pediatrics, Division of Gastroenterology. UT Southwestern Medical Center. Dallas, Texas.
2014-2015	Linda Geng, M.D., Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Clinical Associate Professor, Department of Medicine, Division of Primary Care and Population Health, Stanford University, Palo Alto, California
2014-2016	Rebecca Faulkner, Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Post-doctoral fellow, Dept of Molecular Genetics, UT Southwestern Medical Center. Dallas, Texas.
2015-2016	Kayci Huff-Hardy, M.D., Ph.D.	Physician-Scientist training program / IM-Gastroenterology training	Post-doctoral fellowship	Private Practice. St. Louis, Missouri.
2013-2016	Naoteru Miyata, M.D., Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Private practice. Tokyo, Japan
2016	Da Jia, Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Professor, Department of Pharmacology and Therapeutics, Sichuan University. Chengdu, China.
2014-2019	Lindsey Morris, Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Assistant Professor of Biology, Oklahoma City University, Oklahoma City, Oklahoma.
2016-2019	Qing Chen, M.D.	Visiting Scholar at UT Southwestern Medical Center	Post-doctoral fellowship	Staff Surgeon, Tongji University Medical School. Shanghai, China.



2018-2020	Shuai Tan, Ph.D.	Visiting Scholar at UT Southwestern Medical Center	Post-doctoral fellowship	Assistant Professor, Chongqing University. Chongqing, China.
2019-2020	Noor Neema, M.D.	Pediatric resident at UT Southwestern Medical Center	Post-doctoral fellowship supported by the TARDIS / BWF program	Pediatric GI fellow, University of Pennsylvania and Children's Hospital of Philadelphia. Philadelphia, Pennsylvania.
2020-2022	Jacobo Santolaya, M.D.	Pediatric Gastroenterology Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Assistant Professor, Department of Pediatrics, Division of Gastroenterology. UT Southwestern Medical Center. Dallas, Texas.
2020-2021	Colin Bergstrom, M.D.	Internal Medicine resident at UT Southwestern Medical Center	Post-doctoral fellowship supported by the TARDIS / BWF program	Hematology / Oncology fellow, Stanford University. Palo Alto, California
2021-2023	David Willcutts, M.D.	Pediatric Gastroenterology Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	Pediatric Hepatology fellowship, University of Colorado, Aurora, Colorado
2022-2024	Tiffany Freeny Wright, M.D.	Pediatric Gastroenterology Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	In training
2022-2025	Jianyi Yin, M.D., Ph.D.	Physician-Scientist training program / IM-Gastroenterology training	Post-doctoral fellowship	Instructor, Department of Internal Medicine, Digestive and Liver Diseases, UT Southwestern Medical Center, Dallas, Texas
2021-	Qi Liu, Ph.D.	Fellow at UT Southwestern Medical Center	Post-doctoral fellowship	In training

4. Learner Assessment Activities or Tool Development: *None.*

5. Educational Administration and Leadership

Date	Title	Responsibilities	Time (FTE or hours)	Organization and Program Scope	Outcomes
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2011-	Program Director, UT Gastroenterology / Hepatology Research Training Program	Program oversight, recruitment of trainees	10% effort	NIH supported program at UT Southwestern, supported through a T32 grant since 1962	3 successful renewals of the grant, over 30 trainees during this period.
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### **Grant Review Activities**

Year(s)	Name of Review Committee	Organization
2006-2008	Michigan Gut Peptide Research Center, review panel member	University of Michigan
2007-2008	Michigan Comprehensive Cancer Center, review panel member	University of Michigan
2007	The Marsden Fund, Ad Hoc reviewer	The Royal Society of New Zealand
2009	RC1 Challenge grants, Ad Hoc reviewer	NIH
2010	Investigator Awards, Ad Hoc reviewer	The Wellcome Trust, United Kingdom
2013-2017	Research Fellowship and Career Development Awards Panel, review panel member	CCF
2014	Investigator Awards, Ad Hoc reviewer	Medical Research Council (MRC), United Kingdom
2015-2018	Research Awards Panel, review panel member and Vice Chair of the Panel (2018)	AGA
2016	Special Emphasis Panel, Program Project evaluation, ZDK1 GRB-8 (M1), Ad Hoc reviewer	NIH
2017	Special Emphasis Panel, Fellowships in Digestive Diseases and Nutrition, ZDK1 GRB-7 (O2), Ad Hoc reviewer	NIH
2018	Integrative Nutrition and Metabolic Processes (INMP) Study Section, Ad Hoc reviewer	NIH
2019	Immunology Fellowship Panel ZRG1 F07-U20, Ad Hoc reviewer	NIH
2019	ZDK1 GRB-S (M4) 1 Special Emphasis Panel, Ad Hoc reviewer	NIH
2020	ZKD1 GRB-T(J1) NIDDK T32/T35 in Digestive Diseases and Nutrition, Ad Hoc reviewer	NIH
2021	Nutrition and Metabolism in Health and Disease (NMHD) study section, Ad Hoc reviewer	NIH

2021	Digestive System Host Defense, Microbial Interactions and Immune and Inflammatory Diseases (DHMI) study section, Ad Hoc reviewer	NIH
2021	NIAID R13 Support for Conferences and Scientific Meetings, Ad Hoc reviewer	NIH
2022-	Member, Digestive System Host Defense, Microbial Interactions and Immune and Inflammatory Diseases (DHMI) study section	NIH
2024-	Chair, Digestive System Host Defense, Microbial Interactions and Immune and Inflammatory Diseases (DHMI) study section	NIH

### **Editorial Activities**

Year(s)	Journal Name
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#### Editor/Associate Editor

*None*

#### Editorial Board

2023 - *Revista Medica Herediana*, Cayetano Heredia University, Lima - Peru

#### Ad Hoc Reviewer

Cancer Discovery, Cell Chemical Biology, Cell Death and Differentiation, Developmental Cell, eLife, EMBO Journal, EMBO Reports, EMBO Molecular Medicine, Gastroenterology, Journal of Clinical Investigation, Molecular Biology of the Cell, Nature Protocols, Nature Communications, Nature Immunology, Nature Metabolism, PNAS, Science Immunology, Science Advances, etc.

### **Grant Support**

#### Present

- 1) NIH / NIDDK - R01 DK107733  
Regulation of nutrient homeostasis by COMMD proteins  
Role: Principal Investigator (Contact MPI)  
08/01/2016 – 02/28/2025 Total direct costs/yr: \$347,131
- 2) NIH / NIDDK - R01 DK130957  
Role of colonic enteroendocrine cells in metabolic control  
Role: Principal Investigator  
08/01/2022-06/30/2027 Total direct costs/yr: \$359,683
- 3) NIH / NIDDK - T32 DK007745  
UT Gastroenterology/Hepatology Research Training Program  
Role: Program Director  
06/01/2022 – 05/31/2027 Total direct costs/yr: \$235,231
- 4) NIH / NIAID - R01 AI155786  
Regulation of Zbtb44-eomes complex in CD8+ T cells and anti-tumor immunity

- Role: Co-Investigator (PI: V. Poojary)  
3/24/2021 – 2/28/2026 Total direct costs/yr: \$257,583
- 5) NIH / NCI - R01 CA242558  
Early life exposures and risk of young-onset colorectal cancer  
Role: Collaborator (PI: C. Murphy, Baylor College of Medicine)  
9/1/2019 – 8/31/2024 Total direct costs/yr: \$243,778
- 6) NIH / NIDDK - R01 DK125396  
Investigating imitation SWI chromatin remodeling complexes in mammalian tissue regeneration  
Role: Collaborator (PI: H. Zhu)  
7/1/2020 – 6/30/2024 Total direct costs/yr: \$225,000
- 7) NIH / NCI - R01 CA266072  
Regulation of CD8+T cells by Zbtb42  
Role: Co-Investigator (PI: V. Poojary)  
9/1/2022 – 8/31/2027 Total direct costs/yr: \$262,902
- 8) NIH / NIDDK - R01 DK128031  
Novel Function of Native Low-Density Lipoprotein in Inflammation  
Role: Other significant contributor (PI: H. Zaki)  
9/21/2021 – 7/31/2025 Total direct costs/yr: \$332,861
- 9) NIH / NIAID - R01 CA282143  
Znf740 in the regulation of CD8+T cell exhaustion  
Role: Co-Investigator (PI: V. Poojary)  
9/1/2023 – 8/31/2028 Total direct costs/yr: \$284,636
- 10) NIH / NIDDK - U01DK062431  
IBD Gene Mapping by Clinical and Population Subset  
Role: Subaward PI (Overall PI: S. Brandt, Rutgers)  
8/1/2022 – 6/30/2027 Total direct costs/yr: \$2,500

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Past

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- 11) NIH / NIDDK - R01DK073639  
Role of the CCC complex in immune function  
Role: Principal Investigator  
04/01/17 - 02/28/22 Total direct costs \$900,000
- 12) NIH / NIDDK - K01DK106346  
Altered endosomal protein sorting in the pathogenesis of hepatocellular carcinoma  
Role: Mentor (PI: A. Singla)  
07/01/15 - 06/30/20 Total direct costs \$349,056
- 13) American Cancer Society (ACS) - RSG-17-048-01  
Manipulation of the Gut Microbiota to Prevent Colitis-Associated Cancer  
Role: Co-Investigator (PI: S. Winter)  
07/01/17 - 06/31/21 Total direct costs \$792,000
- 14) NIH / NIDDK - R01DK073639

- Control of NF- $\kappa$ B and inflammation by COMMD proteins  
 Role: Principal Investigator  
 03/01/12 - 02/28/17 Total direct costs \$868,000
- 15) CPRIT (Cancer Prevention & Research Institute of Texas) - RP130409  
 COMMD1 and the Control of Tumor Invasion  
 Role: Principal Investigator  
 06/01/13 - 11/30/16 Total direct costs \$771,686
- 16) NIH / NIAID - R56AI113274  
 NF- $\kappa$ B Signaling Insights from a Rare X-linked Immunodeficiency Syndrome  
 Role: Co-Principal Investigator - Contact (A. Zinn, Co-PI)  
 09/01/14 - 8/31/16 Total direct costs \$250,000
- 17) CCFA (Crohn's & Colitis Found. America) - Senior Research Award # 2737  
 COMMD Proteins and the Regulation of Inflammation in IBD  
 Role: Principal Investigator  
 07/01/10 - 06/30/13 Total direct costs \$351,000
- 18) BSF (Bi-national Science Foundation) - Start-up grant  
 Decreased COMMD Gene Expression in Inflammatory Bowel Disease  
 Role: Co-Investigator (PI: Gluck)  
 09/01/10 - 08/31/12 Total direct costs \$100,000
- 19) NIH / NIDDK - R01 DK073639  
 Control of NF- $\kappa$ B and inflammation by COMMD proteins  
 Role: Principal Investigator  
 02/01/07 - 01/31/12 Total direct costs \$557,406
- 20) UTSW - Disease Oriented Clinical Scholar's Program  
 COMMD proteins and the inflammatory response in IBD  
 Role: Principal Investigator  
 09/01/08 - 08/30/11 Total direct costs \$900,000
- 21) VERAM / VA (Veterans Affairs) - Pilot project  
 Role of JM1 in the regulation of the NF- $\kappa$ B transcription factor  
 Role: Principal Investigator  
 02/01/08 - 01/31/09 Total direct costs \$25,000
- 22) CCFA (Crohn's & Colitis Foundation of America) - Research Fellowship Award  
 Role of COMMD proteins in Inflammatory Bowel Disease  
 Role: Mentor. (PI: Maine)  
 07/01/07 - 12/31/10 Total direct costs \$162,000
- 23) CCFA (Crohn's & Colitis Foundation of America) - Senior Research Award  
 Role of COMMD proteins in Inflammatory Bowel Disease  
 Role: Principal Investigator  
 07/01/06 - 06/30/07 Total direct costs \$130,000

- 24) Veterans Affairs - Merit Review Entry Program  
 Regulation of Cell Function by the Copper Metabolism Gene COMMD1/MURR1  
 Role: Principal Investigator  
 10/01/04 - 09/30/07 Total direct costs \$165,000
- 25) VERAM / VA (Veterans Affairs) - Pilot project  
 Characterization of the inhibitory properties of MURR1 on the NF-κB pathway  
 Role: Principal Investigator  
 05/01/04 - 04/30/05 Total direct costs \$25,000
- 26) Foundation for Digestive Health and Nutrition - AGA Research Scholar Award  
 The roles of XIAP and its interacting partner MURR1 in copper homeostasis  
 Role: Principal Investigator  
 07/01/03 - 06/30/06 Total direct costs \$195,000
- 27) Michigan Gut Peptide Research Center - Pilot Feasibility Project  
 Characterization of a novel partner of XIAP  
 Role: Principal Investigator  
 09/01/01 - 06/30/02 Total direct costs \$20,000

**Clinical Studies / Other Research Protocols**

Present

- UTSW IRB ID: STU-112014-036 Inborn Errors of Immunity (PI: Burstein, Sponsor: Investigator-initiated)
- UTSW IRB ID: STU-112010-130 Registry and Biorepository for the study of Gastrointestinal Inflammatory Diseases (PI: Burstein, Sponsor: Investigator-initiated)
- UTSW IRB ID: STU-082015-016 Histopathologic Features of Gastrointestinal Diseases and their Association with Patient Outcomes (PI: Gopal, Co-investigator: Burstein, Sponsor: Investigator-initiated)
- UTSW IRB ID: STU-2018-0082 A longitudinal observational study of patients undergoing therapy for inflammatory bowel disease (PI: Burstein, Sponsor: TARGET RWE).
- UTSW IRB: STU-2023-0286  
 BRANY study ID: 21-10-240-555 The Genetics of Inflammatory Bowel Disease in Diverse Populations: an IBD Biobank Study (PI: Burstein, Sponsor: NIH/NIDDK)
- UTSW IACUC APN 2017-10211 Dissecting genetic pathways involved in immune defense and mucosal inflammation (PI: Burstein, Last approval date: 5/22/2023, Expiration date 3/17/2026)

Past

- UTSW IRB ID: STU-062010-020 Nuclei Acid, Serum and Tissue Repository for the Study of Gastrointestinal Diseases (PI: Burstein)

UTSW IRB ID: STU-012013-048	Are there significant racial differences in response to therapies in inflammatory bowel disease (PI: Ahmed, Co-Investigator: Burstein)
UTSW IRB ID: STU-112010-130	DNA Repository for Growth Disorders (PI: Zinn, Co-Investigator: Burstein)
UTSW IRB ID: STU-122011-002	The Effect of Obesity on Disease Outcomes in IBD (PI: Flores, Co-Investigator / Mentor: Burstein)

### **Invited Lectures**

Year	Title	Location
<b>International</b>		
2003	XIAP regulates MURR1, a factor involved in copper homeostasis	CSHL Meeting, Cold Spring Harbor, New York – USA
2004	COMMD proteins: a novel family of NF- $\kappa$ B inhibitors	3 <sup>rd</sup> Japan GRG/AGA Symposium, Hakone – Japan
2005	Apoptosis en el tracto intestinal: muerte celular como mecanismo homeostatico	Cayetano Heredia University, Lima – Peru
2006	COMMD Proteins Inhibit $\kappa$ B-Mediated Transcription by Promoting the Ubiquitination of NF- $\kappa$ B Subunits through a Cullin E3 Ligase	Keystone Symposium, Banff – Canada
2006	Regulation of NF- $\kappa$ B by COMMD proteins	University of Utrecht, Utrecht – The Netherlands
2009	Novel architecture of Cullin-Ring ligases: lessons from studying NF- $\kappa$ B ubiquitination	University of Magdeburg, Magdeburg – Germany
2009	Novel architecture of Cullin-Ring ligases: lessons from studying NF- $\kappa$ B ubiquitination	Hebrew University, Jerusalem – Israel
2010	COMMD proteins: regulators of NF- $\kappa$ B and beyond	University of Groningen, Groningen – The Netherlands
2012	COMMD proteins and hypoxic stress	Keystone Symposium, Banff – Canada
2012	Termination of NF- $\kappa$ B responses by ubiquitin-mediated degradation - Role of novel genes in IBD pathogenesis	GI Research Academy Meeting, Tokyo – Japan
2012	Novel developments in IBD pathogenesis and treatment	23 <sup>rd</sup> Peruvian Congress of Digestive Diseases, Lima – Peru
2012	Role of COMMD1 in IBD pathogenesis	Tel Aviv Sourasky Medical Center, Tel Aviv – Israel
2013	CCDC22 and Immune regulation	University of Giessen, Giessen – Germany
2016	An inborn error in a DNA polymerase reveals a role for RNA:DNA hybrids in interferon signaling	University of Giessen, Giessen – Germany

2016	COMMD1 and the regulation of endosomal protein trafficking: copper transporters and other targets	10 <sup>th</sup> International Copper Research Meeting, Sorrento – Italy
2017	RNA:DNA Hybrids and the Regulation of Anti-Viral Immunity	FASEB meeting: Signal Transduction in the Immune System, Snowmass, Colorado – USA
2018	RNA:DNA Hybrids and Antiviral Immunity	Annual meeting of the Society for Target and Drug Discovery, Chengdu – China
2021	The CCC complex as a regulator of copper transporter trafficking	Gordon Conference “Metals in Cell Biology”, Mount Snow, VT
2022	New insights on endosomal transport and its role in copper regulation	12th International Copper Meeting, Sorrento – Italy
2022	Recycling in the endosomal compartment and its implications on lipid homeostasis	Kern Lipid Conference, Vail Colorado – USA
2023	Enteroendocrine cells and regulation of microbial and host metabolism	Bar Ilan University School of Medicine, Safed – Israel
2024	New Insights Underlying Inflammation and Regulation of ATP7B	Digestive Disease Week (DDW), Washington, DC – USA

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National

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2004	MURR1: a regulator of copper metabolism and NF-κB	University of Illinois at Chicago, Chicago, IL
2004	MURR1: a regulator of copper metabolism and NF-κB	UT Southwestern Medical Center, Dallas, TX
2004	MURR1: a regulator of copper metabolism and NF-κB	Washington University in Saint Louis, St. Louis, MO
2004	COMMD proteins: a novel family of NF-κB inhibitors	Stanford University, Palo Alto, CA
2005	COMMD proteins: novel regulators of NF-κB	University of Massachusetts, Worcester, MA
2005	COMMD proteins: novel regulators of NF-κB	Vanderbilt University, Nashville, TN
2005	COMMD proteins: novel regulators of NF-κB	UCSD, La Jolla, CA
2005	COMMD proteins: novel regulators of NF-κB	University of Chicago, Chicago, IL
2005	Apoptotic pathways relevant to the GI tract	Digestive Disease Week, Chicago, IL
2005	Regulation of NF-κB by COMMD proteins	University of Chicago, Chicago, IL
2005	Regulation of NF-κB by COMMD proteins	Columbia University, New York, NY
2006	Regulation of NF-κB by COMMD proteins	Tufts University, Boston, MA
2006	<i>Annual Gregory Gurtner Memorial Lecture: Regulation of NF-κB by COMMD proteins</i>	Washington University in Saint Louis, St. Louis, MO
2007	COMMD proteins: COMMMing to the Scene	University of Miami Miller School of Medicine, Miami, FL



2007	COMMD proteins: COMMing to the Scene	UT Southwestern Medical Center, Dallas, TX
2007	Tales of ubiquitination: NF- $\kappa$ B inhibition by COMMD family members	Mount Sinai School of Medicine, New York, NY
2007	COMMD Proteins and the Ubiquitination Pathway	Johns Hopkins School of Medicine, Baltimore, MD
2008	The nuclear option: NF- $\kappa$ B regulation through ubiquitination	Mayo Clinic, Rochester, MN
2009	Regulating NF- $\kappa$ B through ubiquitination: new steps and new players	University of Texas at Austin, Austin, TX
2009	COMMD1: Regulation of NF- $\kappa$ B and Inflammatory Responses	Wake Forest University School of Medicine, Winston-Salem, NC
2011	Putting out the fire: Signaling cascades to terminate NF- $\kappa$ B and Inflammation	MetroHealth - Case Western Reserve University, Cleveland, OH
2012	Role of COMMD1 in IBD susceptibility through NF- $\kappa$ B regulation	University of Colorado, Denver, CO
2016	Academic gastroenterology in the 21 <sup>st</sup> century: reflections of a physician-scientist	University of Alabama at Birmingham, Birmingham, AL
2016	Understanding pathologic inflammation and IBD in the genomic era	University of Michigan, Ann Arbor, MI
2016	Cytosolic RNA:DNA hybrids and the antiviral immune response	Mayo Clinic, Rochester, MN
2018	Contributions to the tumor microenvironment in the intestinal tract	University of Pennsylvania, Philadelphia, PA
2018	Understanding the genetics of inflammatory bowel disease	University of Pennsylvania, Philadelphia, PA
2019	Internal Medicine Grand Rounds: Inflammatory Bowel Disease for the Internist	University of Iowa, Iowa City, IA
2019	Miller Memorial Lecture: Understanding the Genetics of Inflammatory Bowel Disease	University of Iowa, Iowa City, IA
2021	Harrison Society Panel Discussion: What division chiefs look for when hiring junior faculty.	Vanderbilt University, Nashville, TN
2022	Endosomal protein sorting – adding new pieces to a complex machinery (studies on the CCC and Retriever complexes)	University of Pennsylvania, Philadelphia, PA
2022	Featured speaker – Dept of Medicine Annual Celebration of Research: New pathways in interferon regulation, learning biological insights from rare diseases	University of Florida, Gainesville, FL
2023	CCC and Retriever: molecular machines for receptor recycling in the endosomal compartment	Digestive Disease Research Center at Vanderbilt University, Nashville, TN

2023	Dean's Research Seminar Series – Endosomal protein sorting and its regulation by the CCC and Retriever complexes	Georgetown University School of Medicine, Washington, DC
2024	An enteroendocrine-microbial axis in the large intestine regulates host metabolism	The Charles Bronfman Institute for Personalized Medicine, Icahn School of Medicine at Mount Sinai, New York City, NY
2025	Enteroendocrine-microbial interactions in the colon regulate host metabolism and body weight	Molecular and Cellular Biology Graduate Program, SUNY Downstate Health Sciences University

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Regional/Local

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*None*

### **Technological and Other Scientific Innovations**

Patents

*None*

### **Bibliography**

Complete List of Published Work: <https://www.ncbi.nlm.nih.gov/sites/myncbi/ezra.burstein.1/collections/59159772/public/>

#### **Peer-Reviewed Publications**

1. De Michelena MI, **Burstein E**, Lama JR, Vasquez JC. Paternal age as a risk factor for Down syndrome. *American Journal of Medical Genetics*, 45: 679-682 (1993). PMID: 8456845.
2. Bandres MP, **Burstein E**, Casas J, and Verona R. Tuberculous abscess of the liver: Case report and review of literature. *Revista Gastroenterologica del Peru*, 14: 233-237 (1994). PMID: 8000027.
3. Ganesh L, **Burstein E**, Guha-Niyogi A, Louder M, Mascola J, Klomp LWJ, Wijmenga C, Duckett CS, Nabel GJ. The gene product Murr1 restricts HIV-1 replication in resting CD4<sup>+</sup> lymphocytes. *Nature*, 426: 853-857 (2003). PMID: 14685242.  
\*\*Featured article, News & Views summary.
4. **Burstein E** and Duckett CS. Dying for NF-κB? Control of cell death by transcriptional regulation of the apoptotic machinery. *Review. Current Opinion in Cell Biology*, 15: 732-737 (2003). PMID: 14644198.
5. **Burstein E**, Ganesh L, Dick RD, Brewer GJ, van De Sluis B, Wilkinson J, Lewis J, Klomp LWJ, Wijmenga C, Nabel GJ, Duckett CS. A novel role for XIAP in copper homeostasis through regulation of MURR1. *EMBO Journal*, 23: 244-254 (2004). PMC1271669.
6. Steinman HA, **Burstein E**, Gosselin J, Pihan G, Duckett CS, Jones SN. An alternative splice form of Mdm2 induces p53-independent cell growth and tumorigenesis. *Journal of Biological Chemistry*, 279: 4877-4886 (2004). PMID: 14612455.

7. Lewis J, **Burstein E**, Birkey-Reffey S, Bratton SB, Roberts AB, Cohen GM, Duckett CS. Uncoupling of the signaling and caspase-inhibitory properties of XIAP. *Journal of Biological Chemistry*, 279: 9023-9029 (2004). PMID: 14701799.
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9. Rudd BD, **Burstein E**, Duckett CS, Li X, Lukacs NW. Differential role for TLR3 in Respiratory Syncytial Virus-induced chemokine expression. *Journal of Virology*, 79: 3350-3357 (2005). PMID: 15731229.
10. **Burstein E**, Hoberg JE, Wilkinson AS, Rumble JM, Csomos RA, Komarck CM, Maine GN, Wilkinson JC, Mayo MW, Duckett CS. COMMD Proteins: a novel family of structural and functional homologs of MURR1. *Journal of Biological Chemistry*, 280: 22222-22232 (2005). PMID: 15799966.
11. Mufti AR<sup>§</sup>, **Burstein E**<sup>§</sup>, Csomos RA, Graf TCF, Wilkinson JC, Dick RD, Challa M, Son JK, Bratton SB, Su GL, Brewer GJ, Jakob U, Duckett CS. XIAP is copper binding protein deregulated in Wilson's disease and other copper toxicosis disorders. <sup>§</sup>Equal contributors. *Molecular Cell*, 21: 775-785 (2006). PMID: 16543147.
12. de Bie P, van de Sluis B, **Burstein E**, Duran K, Berger R, Duckett CS, Wijmenga C, Klomp LWJ. Characterization of COMMD protein-protein interactions in NF- $\kappa$ B signalling. *Biochemical Journal*, 398: 63-71 (2006). PMC1525016.
13. Maine GN, Mao X, Komarck CM, **Burstein E**. COMMD1 promotes the ubiquitination of NF- $\kappa$ B subunits through a Cullin containing ubiquitin ligase. *EMBO Journal*, 26: 459-467 (2007). PMC1783443.  

\*\*Featured article.
14. de Bie P, van de Sluis B, **Burstein E**, van de Berghe PVE, Muller P, Berger R, Gitlin JD, Wijmenga C, Klomp L. Distinct Wilson-disease mutations in ATP7B are associated with enhanced binding to COMMD1 and reduced stability of ATP7B. *Gastroenterology*, 133: 1316-1326 (2007). PMC2857755.
15. Maine GN and **Burstein E**. COMMD proteins and the control of the NF- $\kappa$ B pathway. *Review. Cell Cycle*, 6: 672-676 (2007). PMC2910620.
16. Mufti AR<sup>§</sup>, **Burstein E**<sup>§</sup>, Duckett CS. XIAP: cell death regulation meets copper homeostasis. <sup>§</sup>Equal contributors. *Review. Archives of Biochemistry and Biophysics*, 463: 168-174 (2007). PMC1986780.
17. Maine GN and **Burstein E**. COMMD proteins: COMMMing to the scene. *Review. Cellular and Molecular Life Science*, 64: 1997-2005 (2007). PMC2938186.
18. Dai Y, Liu M, Tang W, DeSano J, **Burstein E**, Davis M, Pienta K, Lawrence T, Xu L. Molecularly targeted radiosensitization of human prostate cancer by modulating inhibitor of apoptosis. *Clinical Cancer Research*, 14: 7701-7710 (2008). PMC2605643.

19. **Burstein E**<sup>§</sup> and Fearon ER<sup>§</sup>. Colitis and cancer: a tale of inflammatory cells and their cytokines. <sup>§</sup>Corresponding Authors. *Commentary. Journal of Clinical Investigation*, 118: 464-467 (2008). PMC2213379.
20. Maine GN, Mao X, Muller PAJ, Komarck CK, Klomp LW, **Burstein E**. COMMD1 expression is controlled by critical residues that determine XIAP binding. *Biochemical Journal*, 417: 601-609 (2009). PMC2606926.
21. Mao X, Gluck N, Maine GN, Li H, Zaidi IW, Li D, Repaka A, Mayo MW, **Burstein E**. GCN5 is a required co-factor for a ubiquitin ligase that targets NF- $\kappa$ B/RelA. *Genes & Development*, 23: 849-861 (2009). PMC2666342.
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23. Maine GN, Gluck N, Zaidi IW, **Burstein E**. Bimolecular Affinity Purification (BAP): Tandem affinity purification using two protein baits. *Cold Spring Harbor Protocols*, DOI: 10.1101/pdb.prot5318 (2009). PMC2923643.
24. van de Sluis B, Mao X, Zhai Y, Groot AJ, Vermeulen JF, van der Wall E, van Diest PJ, Hofker MH, Wijmenga C, Klomp LW, Cho KR, Fearon ER, Vooijs M, **Burstein E**. COMMD1 disrupts HIF-1 $\alpha$ / $\beta$  dimerization and inhibits human tumor cell invasion. *Journal of Clinical Investigation*, 120: 2119-2130 (2010). PMC2877941.  
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25. Maine GN, Li H, Zaidi IW, Basrur V, Elenitoba-Johnson K, **Burstein E**. A bimolecular affinity purification method under denaturing conditions for rapid isolation of a ubiquitinated protein for mass spectrometry analysis. *Nature Protocols*, 5: 1447-1459 (2010). PMID: 20671728.
26. Dai Y, DeSano J, Tang W, Meng X, Meng Y, **Burstein E**, Lawrence TS, Xu L. Natural proteasome inhibitor Celastrol suppresses androgen-independent prostate cancer progression by modulating apoptotic proteins and NF-kappaB. *PLoS One*, 5: e14153 (2010). PMC3000808.
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