***Curriculum vitae***

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| **Date Prepared/signed:** | May 27, 2024  |
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| **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-kB, which plays a central role in the inflammatory cascade. In particular, we investigated pathways that mediate the termination of NF-kB activity, leading to the identification of COMMD1 (formerly Murr1) as a negative regulator of the NF-kB pathway (*Nature, 2003*). This led us to identify that it plays a key role in terminating NF-kB dependent transcription through ubiquitination (*EMBO J, 2007*). Furthermore, we identified that these steps are regulated by phosphorylation and acetylation of the NF-kB 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-kB 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-phoshate (*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 (under review, *Nat Struct Mol Bio, 2023*).

In addition to molecular events involved in NF-κB regulation, the lab investigates the genetic and molecular basis of human disorders of immune dysfunction. We demonstrated that CCDC22 is required for optimal IκB 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-α, 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**

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| 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 - *Molecular Genetics* | University of Groningen, Groningen, The Netherlands |

**Postdoctoral and Other Training**

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| --- | --- | --- | --- |
| 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*Mentor:* Gary Nabel  | Vaccine Research Center, NIH |
| 5/2002-9/2004 | Research Fellowship | Immunology*Mentor:* Colin Duckett  | University of Michigan Medical School |

**Professional Development Training**

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

**Faculty Academic Appointments**

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| 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**

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

**Other Professional Positions**

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

**Current Licensure and Certification**

Licensure

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

Board and Other Certification

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| 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**

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| 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 |
| 20222023 | Best Doctors in Dallas | D Magazine |
| 2024 | Elected Member | Association of American Physicians (AAP) |

**Major Administrative/Leadership Positions**

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| --- | --- | --- |
| Year(s) | Position Title | Institution |
| 2016- | Chief, Division of Digestive and Liver Diseases | UT Southwestern Medical Center |
| 2016- | Director, Pollock Family Center for Research in Inflammatory Bowel Disease | UT Southwestern Medical Center |

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

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| --- | --- | --- |
| Year(s) | Name of Committee | Institution/Organization |
| UT Southwestern |
| 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 | *Chair,* Faculty Mentorship Committee for Vincent Aguirre (Assistant Professor) | Department of Internal Medicine |
| 2014-2015 | Search Committee for Chief of NephrologyOutcome – Appointment of Dr. Orson Moe (Internal)  | Department of Internal Medicine |
| 2012-2016 | GI Fellowship Curriculum Committee | Division of Digestive & Liver Diseases |
| 2012-2015 | *Chair,* Faculty Mentorship Committee for Yonas Getachew | Department of Internal Medicine |
| 2014-2016 | *Chair,* Faculty Mentorship Committee for Luke Engelking | Department of Internal Medicine |
| 2015-2016 | *Chair,* Faculty Mentorship Committee for Emre Turer  | Department of Internal Medicine |
| 2018-2019 | Search Committee for Chief of Pediatric GastroenterologyOutcome – 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 | *Chair,* Search Committee for Chief of NephrologyOutcome – Appointment of Dr. Samir Parikh (BIDMC – HMS) | Department of Internal Medicine  |
| 2020-2021 | Search Committee for Chair of Obstetrics and GynecologyOutcome – 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 RadiologyOutcome – Appointment of Dr. Martin Pomper (Johns Hopkins) | UT Southwestern Medical School |
| Hospital |
| 2011-2013 | *Chair,* 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**

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| --- | --- |
| 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 *(Member, unless noted otherwise)* |
| 2012-2015 | Diversity Committee, AGA |
| 2014-2016 | Future Leaders Program AGA, *Advisory Board Member* |
| 2015-2018 | Research Policy Committee, AGA |
| 2018-2019 | Society for Target and Drug Discovery, *Board Member* |
| 2022 | Future Leaders Program AGA, *Selected mentor* |
| Dates | Fellowships |
| 2016 | AGA Fellow (AGAF) |

**Community Engagement**

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

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| --- | --- | --- | --- | --- | --- |
| Date | Course Name, Rotation or Session Topic | Role | Number of Instruction hours | Primary Learner Audience (number) | Department or Organization |
| *Medical and Graduate School (UME) Course Instruction, Small Group Instruction, Clinical Supervision*  |
| 2005, 2008 | Gastroenterology Sequence*Case-based learning* | Instructor | 2 hr/yr | Small Group teaching sessions for second year medical students, ~ 10 students. | University of Michigan Medical School |
| 2015- | Integrated Medicine Course on Gastrointestinal System and Nutrition *Colon cancer, Polyposis syndromes, Dysphagia, Gastroesophageal reflux, Neuropathies and Myopathies in the GI tract, Maldigestion and Malabsorption, Defects in digestion – mouth and stomach.* | Course Co-director (2015-2016) Lecturer (2015-present) | 4-12 hr/yr | Second year medical students, ~ 160 students. | UT Southwestern Medical School |
| *Graduate Medical Education (GME) Course Instruction, Small Group Instruction, Clinical Supervision* |
| 2006-2008 | Quantitative Physiology 419/519*Lectures in GI Physiology and Energy Metabolism* | Lecturer | 8 hr/yr | Graduate level Biomedical Engineering course, ~ 120 students | University of Michigan School of Engineering. |
| 2010-2016 | Clinical Immunology*Lectures on Mucosal Immune Disorders*  | Lecturer | 4 hr/yr  | Immunology Graduate Program, ~10 students | Graduate School of Biomedical Sciences, UT Southwestern |
| 2013- | Responsible Conduct of Research*Small group discussions on research ethics* | 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 *Core topics in gastroenterology* | 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 *Rounding in the Gastroenterology Consult Services*  | 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*Staffing clinic-based care in GI clinics at various locations* | 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*Precepting endoscopy procedures, including hands-on training*  | 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*Lectures on IBD pathogenesis, gut immunology, basics of molecular biology, GI cancer syndromes, and others* | Lecturer | 1-3 hr/yr | GI fellows and faculty, ~40-60 attendees | UT Southwestern Medical Center. |
| *Instructor in Continuing Medical Education (CME), Faculty Development, National Educational Symposia* |
| 2009 | Advances in IBD: *Inflammation and IBD: How does it all start?* | Lecturer | 1h | 80 attendees | UT Southwestern Medical Center  |

2. Curriculum Development

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| --- | --- | --- | --- | --- | --- |
| 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

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| --- | --- | --- | --- | --- |
| Date | Mentee Name | Mentee Level/ Program and Institution | Role | Mentee Outcomes, Current Position |
| *Undergraduate Students* |
| 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 2014 | Reid Weisberg  | High school student, St. Marks High School, Dallas, TX.Undergraduate student, UT Austin, Austin, TX. | Summer research internships | Graduated college, Completed MD at Baylor College f Medicine and is currently in Rheumatology training at Columbia |
| 2010 | Mary Lovelace | Undergraduate student, UT Dallas, Richardson, TX. | Summer research internship | Graduated college, current position unknown |
| 20122015 | Nick Norris  | Undergraduate student, Baylor University, Waco, TX.Medical Student at UT Southwestern Medical Center | Summer research internships | Graduated college, Completed MD at UT Southwestern and is currently in Pediatric Gastroenterology training at UT Southwestern |
| 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 |
| *PhD students* |
| 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, *Current position:* 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 Southwestern Medical Center | Ph.D. Dissertation Committee member | Graduated MD/PhD,Residency training in Dermatology at UCSD |
| 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, *Current position:* 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, UT Southwestern Medical Center | Rotation Student (2020)Ph.D. Co-mentor (Jen Liou and Ezra Burstein)  | Joined Dr. Ezra Burstein and Dr. Jen Liou’s labs (jointly mentored), Dept of Internal Medicine and Dept of Physiology, UT Southwestern. Currently in training |
| 2020- | 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. |
| *Medical Students* |
| 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 |
| *Postdoctoral scholars* |
| 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 Southwestern Medical Center | Post-doctoral fellowship | Current position unknown. |
| 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- | Tiffany Freeny Wright, M.D.  | Pediatric Gastroenterology Fellow at UT Southwestern Medical Center | Post-doctoral fellowship | In training |
| 2021- | Qi Liu, Ph.D.  | Fellow at UT Southwestern Medical Center | Post-doctoral fellowship | In training |
| 2022- | Jianyi Yin, M.D., Ph.D.  | Physician-Scientist training program / IM-Gastroenterology training | Post-doctoral fellowship | In training |

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

5. Educational Administration and Leadership

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| --- | --- | --- | --- | --- | --- |
| Date | Title | Responsibilities  | Time (FTE or hours) | Organization and Program Scope | Outcomes |
| 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. |

**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 |
| Editor/Associate Editor |
|  | *None* |
| Editorial Board |
| 2023 - | *Revista Medica Herediana*, Cayetano Heredia University, Lima - Peru |
| Ad Hoc Reviewer  |
| American Journal of Pathology, Blood, BMC Cancer, Cancer Discovery, Cell Chemical Biology, Cell Death and Differentiation, Cell Cycle, Cellular and Molecular Life Sciences, Developmental Cell, Disease Models & Mechanisms, eLife, EMBO Journal, EMBO Reports, EMBO Molecular Medicine, Gastroenterology, Hepatology, Journal of the American Society of Nephrology, Journal of Cellular Physiology, Journal of Clinical Investigation, Journal of Molecular Cell Biology, Journal of Molecular Cancer Research, Molecular and Cellular Biology, Molecular and Cellular Proteomics, Molecular Biology of the Cell, Molecular Medicine, Nature Protocols, Nucleic Acids Research, Oncogene, Obesity, Plos One, PNAS, Science Immunology, Signal Transduction and Targeted Therapy, Trends in Biochemical Sciences, etc. |

**Grant Support**

|  |
| --- |
| Present |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | 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 |
| Past |
|  | 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 |
|  | 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 |
|  | 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 |
|  | NIH / NIDDK - R01DK073639 |
| Control of NF-B and inflammation by COMMD proteins |
| Role: Principal Investigator |
| 03/01/12 - 02/28/17 Total direct costs $868,000 |
|  | 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 |
|  | NIH / NIAID - R56AI113274  |
| NF-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  |
|  | 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 |
|  | 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 |
|  | NIH / NIDDK - R01 DK073639 |
| Control of NF-B and inflammation by COMMD proteins |
| Role: Principal Investigator |
| 02/01/07 - 01/31/12 Total direct costs $557,406 |
|  | 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 |
|  | VERAM / VA (Veterans Affairs) - Pilot project |
| Role of JM1 in the regulation of the NF-B transcription factor |
| Role: Principal Investigator |
| 02/01/08 - 01/31/09 Total direct costs $25,000 |
|  | 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 |
|  | 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 |
|  | 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 |
|  | VERAM / VA (Veterans Affairs) - Pilot project |
| Characterization of the inhibitory properties of MURR1 on the NF-B pathway |
| Role: Principal Investigator |
| 05/01/04 - 04/30/05 Total direct costs $25,000 |
|  | 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 |
|  | 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-2023-0286BRANY 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 |
| International |
| 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-B inhibitors | 3rd 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 B-Mediated Transcription by Promoting the Ubiquitination of NF-B Subunits through a Cullin E3 Ligase | Keystone Symposium, Banff – Canada |
| 2006 | Regulation of NF-B by COMMD proteins | University of Utrecht, Utrecht – The Netherlands |
| 2009 | Novel architecture of Cullin-Ring ligases: lessons from studying NF-B ubiquitination | University of Magdeburg, Magdeburg – Germany |
| 2009 | Novel architecture of Cullin-Ring ligases: lessons from studying NF-B ubiquitination | Hebrew University, Jerusalem – Israel |
| 2010 | COMMD proteins: regulators of NF-B and beyond | University of Groningen, Groningen – The Netherlands |
| 2012 | COMMD proteins and hypoxic stress | Keystone Symposium, Banff – Canada |
| 2012 | Termination of NF-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 | 23rd 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 | 10th 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  |
| National |
| 2004 | MURR1: a regulator of copper metabolism and NF-B | University of Illinois at Chicago, Chicago, IL |
| 2004 | MURR1: a regulator of copper metabolism and NF-B | UT Southwestern Medical Center, Dallas, TX |
| 2004 | MURR1: a regulator of copper metabolism and NF-B | Washington University in Saint Louis, St. Louis, MO |
| 2004 | COMMD proteins: a novel family of NF-B inhibitors  | Stanford University, Palo Alto, CA |
| 2005 | COMMD proteins: novel regulators of NF-B  | University of Massachusetts, Worcester, MA |
| 2005 | COMMD proteins: novel regulators of NF-B  | Vanderbilt University, Nashville, TN |
| 2005 | COMMD proteins: novel regulators of NF-B  | UCSD, La Jolla, CA |
| 2005 | COMMD proteins: novel regulators of NF-B  | University of Chicago, Chicago, IL |
| 2005 | Apoptotic pathways relevant to the GI tract  | Digestive Disease Week, Chicago, IL |
| 2005 | Regulation of NF-B by COMMD proteins | University of Chicago, Chicago, IL |
| 2005 | Regulation of NF-B by COMMD proteins | Columbia University, New York, NY |
| 2006 | Regulation of NF-B by COMMD proteins | Tufts University, Boston, MA |
| 2006 | *Annual Gregory Gurtner Memorial Lecture:* Regulation of NF-B by COMMD proteins | Washington University in Saint Louis, St. Louis, MO |
| 2007 | COMMD proteins: COMMing 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-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-B regulation through ubiquitination | Mayo Clinic, Rochester, MN |
| 2009 | Regulating NF-B through ubiquitination: new steps and new players | University of Texas at Austin, Austin, TX |
| 2009 | COMMD1: Regulation of NF-B and Inflammatory Responses | Wake Forest University School of Medicine, Winston-Salem, NC |
| 2011 | Putting out the fire: Signaling cascades to terminate NF-B and Inflammation | MetroHealth - Case Western Reserve University, Cleveland, OH |
| 2012 | Role of COMMD1 in IBD susceptibility through NF-B regulation | University of Colorado, Denver, CO |
| 2016 | Academic gastroenterology in the 21st 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 |
| Regional/Local |
|  | *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**

|  |  |
| --- | --- |
|  | 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. |
|  | Bandres MP, **Burstein E**, Casas J, and Verona R. Turberculous abscess of the liver: Case report and review of literature. *Revista Gastroenterologica del Peru*, 14: 233-237 (1994). PMID: 8000027. |
|  | 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+ lymphocytes. *Nature*,426: 853-857 (2003). PMID: 14685242.  *\*\*Featured article, News & Views summary.* |
|  | **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. |
|  | **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. |
|  | 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. |
|  | 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.  |
|  | Wilkinson JC, Richter BW, Wilkinson AS, **Burstein E**, Rumble JM, Balliu B, Duckett CS. VIAF: a conserved IAP interacting factor that modulates caspase activation. *Journal of Biological Chemistry*, 279: 51091-51099 (2004). PMID: 15371430. |
|  | 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. |
|  | **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. |
|  | Mufti AR**§**, **Burstein E§**, 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. **§**Equal contributors. *Molecular Cell*, 21: 775-785 (2006). PMID: 16543147. |
|  | de Bie P, van de Sluis B, **Burstein E**, Duran K, Berger R, Ducket CS, Wijmenga C, Klomp LWJ. Characterization of COMMD protein-protein interactions in NF-B signalling. *Biochemical Journal*, 398: 63-71 (2006). PMC1525016. |
|  | Maine GN, Mao X, Komarck CM, **Burstein E**. COMMD1 promotes the ubiquitination of NF-κB subunits through a Cullin containing ubiquitin ligase. *EMBO Journal*, 26: 459-467 (2007). PMC1783443.  *\*\*Featured article.*  |
|  | 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. |
|  | Maine GN and **Burstein E**. COMMD proteins and the control of the NF-κB pathway. *Review. Cell Cycle*, 6: 672-676 (2007). PMC2910620. |
|  | Mufti AR**§**, **Burstein E§**, Duckett CS. XIAP: cell death regulation meets copper homeostasis. **§**Equal contributors. *Review*. *Archives of Biochemistry and Biophysics*, 463: 168-174 (2007). PMC1986780. |
|  | Maine GN and **Burstein E**. COMMD proteins: COMMing to the scene. *Review.*  *Cellular and Molecular Life Science*, 64: 1997-2005 (2007). PMC2938186. |
|  | 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. |
|  | **Burstein E§** and Fearon ER**§**. Colitis and cancer: a tale of inflammatory cells and their cytokines. **§**Corresponding Authors. *Commentary*. *Journal of Clinical Investigation*, 118: 464-467 (2008). PMC2213379. |
| 1.
 | 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. |
|  | 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-B/RelA. *Genes & Development,* 23: 849-861 (2009)*.* PMC2666342. |
|  | Muller PAJ, van de Sluis B, Groot A, Verbeek D, Vonk WIM, **Burstein E**, Wijmenga C, Vooijs M, Reits E, Klomp LW. Nuclear-cytosolic transport of COMMD1 regulates NF-κB and HIF-1 activity. *Traffic,* 10: 514-527 (2009)*.* PMID: 19220812. |
|  | Maine GN, Gluck N, Zaidi IW, **Burstein E**. Bimolecular Affinity Purification (BAP): Tandem affinity purification using two protein baits. *Cold Sping Harbor Protocols*, DOI: 10.1101/pdb. prot5318 (2009). PMC2923643. |
|  | 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 dimerization and inhibits human tumor cell invasion. *Journal of Clinical Investigation*, 120: 2119-2130 (2010). PMC2877941.  *\*\*Featured article.* |
|  | 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. |
|  | Dai Y, DeSano J, Tang W, Meng X, Meng Y, **Burstein E**, Lawrence TS, Xu L. Natural proteasome inhibitor Celastrol duppresses androgen-independent prostate cancer progression by modulating apoptotic proteins and NF-kappaB. *PLoS One,* 5: e14153 (2010). PMC3000808. |
|  | Mao X, Gluck N, Chen B, Starokadomskyy P, Li H, Maine GN, **Burstein E.** COMMD1 (Copper metabolism MURR1 domain containing 1) regulates Cullin-RING ligases by preventing CAND1 (Cullin-associated NEDD8-dissociated) binding. *Journal of Biological Chemistry*, 286: 32355-32365(2011)*.* PMC3173175.  *\*\*Most viewed article of the month.* |
|  | Li H, Wittwer T, Weber A, Schneider H, Moreno R, Maine GN, Kracht M, Schmitz ML, **Burstein E**. Regulation of NF-B activity by competition between RelA acetylation and ubiquitination. *Oncogene,* 31: 611-623(2012). PMC3183278. |
|  | Ziesche E, Kettner-Buhrow D, Weber A, Wittwer T, Jurida L, Soelch J, Mueller H, Newel D, Kronich P, Schneider H, Dittrich-Breiholz O, Bhaskara S, Hiebert S, Hottiger M, Li H, **Burstein E**, Schmitz L, Kracht M. The coactivator role of histone deacetylase 3 in IL-1-signaling involves deacetylation of p65 NF-κB. *Nucleic Acids Research,* 41: 90-109 (2013). PMC3592411. |
|  | Colleran A, Collins P, O'Carroll C, Ahmed A, Mao X, McManus B, Kiely PA, **Burstein E**, Carmody RJ. Deubiquitination of NF-κB by Ubiquitin-Specific Protease-7 promotes transcription. *Proceedings of the National Academy of Sciences U.S.A.,* 110: 618-623 (2013). PMC3545798.  |
|  | Starokadomskyy P, Gluck N, Li H, Chen B, Wallis M, Maine GN, Mao X, Zaidi IW, Hein MY, McDonald FJ, Lenzner S, Zecha A, Ropers HH, Kuss AW, McGaughran J, Gecz J, **Burstein E**. CCDC22 deficiency in humans blunts activation of pro-inflammatory NF-B signaling. *Journal of Clinical Investigation*, 123: 2244–2256 (2013). PMC3635737. |
|  | Raetz M, Kibardin AK, Sturge C, Pifer R, Li H, **Burstein E**, Ozatoe K, Larin S, Yarovinsky F. Cooperation of TLR12 and TLR11 in the IRF8-dependent IL-12 response to *Toxoplasma gondii* Profilin. *Journal of Immunology*, 191: 4818-4827 (2013).PMC3805684. |
|  | Nguyen AD, Valasek MA, and **Burstein E**. Paraneoplastic diarrhea in a patient with lung adenocarcinoma. *Clinical Journal of Gastroenterology*, 6: 357-360 (2013). PMID: 23563313. |
|  | Li H, Chan L, Bartuzi P, Melton SD, Weber A, Ben-Shlomo S, Raetz M, Mao X, Starokadomskyy P, Sharvit E, van Sommeren S, Mokadem M, Schneider H, Weisberg R, Westra HJ, Esko T, Metspalu A, Faubion W, Yarovinsky F, Hofker M, Wijmenga C, Kracht M, Franke L, Aguirre V, Weersma RK, Gluck N, van de Sluis B, **Burstein E**. Copper Metabolism Domain-containing 1 (COMMD1) represses genes that promote inflammation and protects mice from colitis and colitis-associated cancer. *Gastroenterology*, 147: 184-195 (2014). PMC4086320. |
|  | Bartuzi P, Wijshake T, Dekker DC, Fedoseienko A, Kloosterhuis NJ, Youssef SA, Li H, Li H, Shiri-Sverdlov R, Kuivenhoven JA, de Bruin A, **Burstein E**, Hofker MH, van de Sluis B A cell-type specific role for murine Commd1 in liver inflammation. *Biochimica et Biophysica Acta*, 1842: 2257-2265(2014). PMC4188638. |
|  | Starokadomskyy P and **Burstein E**. Bimolecular affinity purification - a variation of TAP with multiple applications. *Review. Methods in Molecular Biology*, 1177: 193-209 (2014). PMID: 24943324. |
|  | Li H and **Burstein E**. COMMD1 regulates inflammation and colitis-associated cancer progression*. Review. OncoImmunology,* 3: e947891(2014). PMC4292209. |
|  | Phillips-Krawczak CA‡, Singla A‡, Starokadomskyy P, Deng Z, Osborne DG, Li H, Dick CJ, Gomez TS, Koenecke M, Zhang J-S, Dai H, Kaufmann SH, Hein MY, Wallis M, McGaughran J, Gecz J, van de Sluis B, Billadeau DD**§**, **Burstein E§**. COMMD1 is linked to the WASH complex and regulates endosomal trafficking of the copper transporter ATP7A. ‡,**§**Equal contributors. *Molecular Biology of the Cell*,26: 91-103 (2015). PMC4279232. |
|  | Flores A, **Burstein E**, Cipher DJ, Feagins LA. Obesity in Inflammatory Bowel Disease: A Marker of Less Severe Disease. *Digestive Disease Science*, 60: 2436-2445 (2015). PMID: 25799938. |
|  | Li H, Koo Y, Mao X, Sifuentes-Dominguez L, Morris LL, Jia D, Miyata N, Faulkner RA, van Deursen J, Vooijs M, Billadeau DD, van de Sluis B, Cleaver O, **Burstein E**. Endosomal sorting of Notch receptors through COMMD9-dependent pathways modulates Notch signaling. *Journal of Cell Biology*, 211: 605-617 (2015). PMC4639872.  *\*\*Featured article.* |
|  | Starokadomskyy P and **Burstein E**. Detection of IB degradation dynamics and IB- ubiquitination *in vivo*. *Review. Methods in Molecular Biology*, 1280: 15-24 (2015). PMID: 25736741. |
|  | Starokadomskyy P, Li H, **Burstein E**. Methodology to study NF-B/RelA ubiquitination *in vivo. Review. Methods in Molecular Biology*, 280: 371-381 (2015). PMID: 25736761. |
|  | Bartuzi P, Billadeau DD, Favier R, Rong X, Dekker D, Fedoseienko A, Fieten H, Wijers M, Levels JH, Huijkman N, Kloosterhuis N, van der Molen H, Brufau G, Groen AK, Elliott AM, Kuivenhoven JA, Plecko B, Grangl B, McGaughran J, Horton JD, **Burstein E**, Hofker MH, van de Sluis B. CCC- and WASH-mediated endosomal sorting of LDLR is required for normal clearance of circulating LDL. *Nature Communications*, 7: 10961 (2016). PMC4792963. |
|  | Starokadomskyy P, Gemelli T, Rios JJ, Xing C, Wang RC, Li H, Pokatayev V, Dozmorov I, Khan S, Miyata N, Fraile G, Raj P, Xu Z, Xu Z, Ma L, Lin Z, Wang H, Yang Y, Ben Amitai D, Orenstein N, Mussaffi H, Baselga E, Tadini G, Grunebaum E, Sarajlija A, Krzweski K, Wakeland EK, Yan N, de la Morena MT, Zinn AR**§**, **Burstein E§**. DNA polymerase-α regulates type I interferon activation through cytosolic RNA:DNA synthesis. **§**Equal contributors. *Nature Immunology*, 17: 495–504 (2016). PMC4836962.  *\*\*Featured article, News & Views summary. F1000 selected article.*  |
|  | Okwara CJ, Petrasek J, Gibson M, and **Burstein E**. Secondary aortoesophageal fistula associated with aneurysmal graft infection by *Coxiella Burnetii*. *ACG Case Reports*, 3: 169-171 (2016). PMC4843146. |
| 1.
 | Jia D, Zhang JS, Li F, Wang J, Deng Z, White MA, Osborne DG, Phillips-Krawczak C, Gomez TS, Li H, Singla A, **Burstein E**, Billadeau DD, Rosen MK. Structural and mechanistic insights into regulation of the retromer coat by TBC1d5. *Nature Communications*, 7: 13305(2016). PMC5105194.  |
|  | Jia D, Chen X, Zhou Q, **Burstein E**, Yang S, Sun Q. Inhibiting cancer cell hallmark features through nuclear export inhibition*. Review. Signal Transduction and Targeted Therapy*, 1: 16010 (2016). PMC5661660. |
|  | Starokadomskyy P, Sifuentes-Dominguez L, Gemelli T, Zinn AR, Dossi MT, Mellado C, Bertrand P, Borzutzky A, **Burstein E**. Evolution of the skin manifestations in X-linked pigmentary reticulate disorder. *British Journal of Dermatology*, 177: e200-e201 (2017). PMC5640471.  |
|  | McNally KE**¥**, Faulkner R**¥**, Steinberg F, Gallon M, Ghai R, Pim D, Langton P, Pearson N, Danson CM, Nägele H, Morris LM, Singla A, Overlee BL, Heesom KJ, Sessions R, Banks L, Collins BM, Berger I, Billadeau DD, **Burstein E§**, Cullen PJ**§**. Retriever, a multiprotein complex for retromer-independent endosomal cargo recycling. **¥, §**Equal contributors. *Nature Cell Biology,* 19: 1214-1225 (2017). PMC5790113.  *\*\*Featured article, News & Views summary.* |
|  | Alekhina O, **Burstein E**, Billadeau DD. Cellular functions of WASP family proteins at a glance. *Review. Journal of Cell Science*,130: 2235-2241 (2017). PMC5536917. |
|  | Huff-Hardy K, Bedair M, Vazquez R, **Burstein E**. Efficacy of combination Vedolizumab and Ustekinumab for refractory Crohn’s Disease. *Inflammatory Bowel Diseases*, 23: E49(2017). PMID: 28858074. |
|  | Zhu W, Winter MG, Byndloss MX, Spiga L, Duerkop BA, Hughes ER, Büttner L, de Lima Romão E, Behrendt CL, Lopez CA, Sifuentes-Dominguez L, Huff-Hardy K, Wilson RP, Gillis CC, Tükel Ç, Koh AY, **Burstein E**, Hooper LV, Bäumler AJ, Winter SE. Precision editing of the gut microbiota ameliorates colitis. *Nature,* 553: 208-211 (2018). PMC5804340. |
|  | Burger E, López-Yglesias A, Rajala MW, Geng L, Levine B, Hooper LV, **Burstein E**, Yarovinsky F. Loss of Paneth cell autophagy causes acute susceptibility to Toxoplasma gondii-mediated inflammation. *Cell Host & Microbe,* 23: 177-190(2018). PMC6179445. |
|  | Fedoseienko A, Wijers M, Wolters JC, Dekker D, Smit M, Huijkman N, Kloosterhuis N, Klug H, Schepers A, Willems van Dijk K, Levels JH, Billadeau DD, Hofker MH, van Deursen J, Westerterp M, **Burstein E**, Kuivenhoven JA, van de Sluis B. The COMMD Family Regulates Plasma LDL Levels and Attenuates Atherosclerosis Through Stabilizing the CCC complex in Endosomal LDLR Trafficking. *Circulation Research*, 122: 1648-1660 (2018). PMID: 29545368 |
|  | Ware A, Cheung T, Rasulov S, **Burstein E**, McDonald F. Epithelial Na+ channel: reciprocal control by COMMD10 and Nedd4-2. *Frontiers in Physiology*, 9: 793 (2018). PMC6028986. |
| 1.
 | Yong X, Hu W, Zhou X, Wang J, **Burstein E**, Jia D. Expression and purification of the SNX1/SNX6 complex. *Protein Expression and Purification*, 151: 93-98 (2018). PMID: 29908913. |
|  | Miyata N**¥**, Morris LL**¥**, Chen Q, Thorne C, Singla A, Zhu W, Winter M, Melton SD, Li H, Sifuentes-Dominguez L, Llano E, Huff-Hardy K, Starokadomskyy P, Lopez A, Reese TA, Turer E, Billadeau DD, Winter SE, **Burstein E**. Microbial sensing by intestinal myeloid cells controls carcinogenesis and epithelial differentiation. *Cell Reports*, 24: 2342-2355 (2018). **¥**Equal contributors. PMC6177233. |
|  | Mouhadeb O, Ben Shlomo S, Cohen K, Farkash I, Gruber S, Maharshak N, Halpern Z, **Burstein E**, Gluck G, Varol C. Impaired COMMD10-Mediated Regulation of Ly6hi Monocyte-Driven Inflammation Disrupts Gut Barrier Function. *Frontiers in Immunology*, 9: 2623 (2018).PMC6246736. |
|  | Wang J, Fedoseienko A, **Burstein E**, Jia D, Billadeau DD. Endosomal Receptor Trafficking: Retromer and Beyond. *Review. Traffic*, 19: 578-590 (2018). PMC6043395. *\*\*Top downloaded paper in this journal in 2018.* |
|  | Van Esch H, Colnaghi R, Freson K, Starokadomskyy P, Zankl A, Backx L, Abramowicz I, Outwin E, Rohena L, Faulkner C, Leong GM, Newbury-Ecob RA, Challis RC, Õunap K, Jaeken J, Seuntjens E, Devriendt K, **Burstein E**, Low KJ, O’Driscoll M. Defective DNA polymerase -primase leads to X-linked intellectual disability associated with severe growth retardation, microcephaly and hypogonadism. *American Journal of Human Genetics*, 104: 957-967 (2019).PMC6506757. |
|  | Choi C, Singal A, Padhya K, Flores A, **Burstein E**, Ahmed T. Hispanic Ethnicity is Associated with Milder Disease Severity in Crohn’s Disease but not Ulcerative Colitis. *Current Trends in Gastroenterology and Hepatology*, 2: 123-129 (2019).  |
|  | Sifuentes-Dominguez L, Starokadomskyy P, Welch J, Gurram B, Park JY, Koduru P, **Burstein E**. Mosaic tetrasomy 9p associated with inflammatory bowel disease. *Journal of Crohn’s and Colitis*, 13: 1474–1478 (2019). PMC6821155. |
|  | Zhu W, Miyata N, Winter MG, Arenales A, Hughes ER, Spiga L, Kim J, Sifuentes-Dominguez L, Starokadomskyy P, Gopal P, Byndloss MX, Santos RL, **Burstein E§**, Winter SE**§**. Editing of the gut microbiota reduces carcinogenesis in mouse models of colitis-associated colorectal cancer. **§**Co-corresponding authors. *Journal of Experimental Medicine*, 216: 2378–2393 (2019). PMC6781011. |
|  | Singla A, Fedoseienko A, Giridharan SSP, Overlee BL, Lopez A, Jia D, Song J, Huff-Hardy K, Weisman L, **Burstein E§**, Billadeau DD**§**. Endosomal PI(3)P regulation by the CCC complex controls membrane protein recycling. **§**Co-corresponding authors. *Nature Communications*, 10: 4271 (2019). PMC6753146. |
|  | Starokadomskyy P, Wilton KM, Krzewski K, Lopez A, Sifuentes-Dominguez L, Overlee B, Chen Q, Ray A, Gil-Krzewska A, Peterson M, Kinch LN, Rohena L, Grunebaum E, Zinn AR, Grishin NV, Billadeau DD, **Burstein E**. NK cell defects in X-linked pigmentary reticulate disorder. *Journal of Clinical Investigation Insight*, 4: 125688 (2019). PMC6948767. |
|  | Sifuentes-Dominguez L, Li H, Llano E, Liu Z, Singla A, Patel AS, Kathania M, Khoury A, Norris N, Rios JJ, Starokadomskyy P, Park JY, Gopal P, Liu Q, Tan S, Chan L, Ross T, Harrison S, Venuprasad K, Baker LA, Jia D, **Burstein E**. *SCGN* deficiency results in colitis susceptibility. *ELife*, 8: e49910 (2019). PMC6839920. *\*\*Featured article of the week.* |
|  | Tu Y, Zhu S, Wang J, **Burstein E**, Jia D. Natural compounds in the chemoprevention of alcoholic liver disease. *Review.* *Phytotherapy Research*, 33: 2192-2212 (2019). PMID: 31264302. |
|  | Rimbert A, Dalila N, Wolters JC, Huijkman N, Smit M, Kloosterhuis N, Riemsma M, van der Veen Y, Singla A, van Dijk F, Biobank-Based Integrative Omics Studies Consortium, Frikke-Schmidt R, **Burstein E**, Tybjærg-Hansen A, van de Sluis B, Kuivenhoven JA. A common variant in *CCDC93* protects against myocardial infarction and cardiovascular mortality by regulating endosomal trafficking of low-density lipoprotein receptor. *European Heart Journal*, 41: 1040-1053 (2020).  PMID: 31630160. |
|  | Qin J, Liu Q, Liu Z, Pan YZ, Sifuentes-Dominguez L, Stepien KP, Wang Y, Tu Y, Tan S, Wang Y, Sun Q, Mo X, Rizo J, **Burstein E**, Jia D. Structural and mechanistic insights into secretagogin-mediated exocytosis. *Proceeding of the National Academy of Sciences U S A*, 117: 6559-6570 (2020). PMC7104245. |
|  | Faqih A, Singal AG, Fullington HM, Hewitt B, **Burstein E**, Gopal P, Wylie A, Abrams J, Murphy CC. Colorectal neoplasia among patients with and without human immunodeficiency virus. *Cancer Epidemiology, Biomarkers & Prevention*, 29: 1689-1691 (2020). PMC7415639. |
|  | Chen Q, Suzuki K, Sifuentes-Dominguez L, Miyata N, Song J, Lopez A, Starokadomskyy P, Gopal P, Dozmorov I, Tan S, Ge B, **Burstein E**. Paneth cell-derived growth factors support intestinal tumorigenesis. *Life Science Alliance*, 4: e202000934 (2020). PMC7772774. |
|  | Liu Q, Tan S, Jia D, **Burstein E**, Sifuentes-Dominguez L. *In vitro* GLP-1 release assay using STC-1 cells. *Bio-Protocol*, 10: e3717. (2020). PMC7854363. |
|  | Starokadomskyy P, Escala Perez-Reyes A, **Burstein E**. Immune Dysfunction in Mendelian Disorders of POLA1 Deficiency. *Journal of Clinical Immunology*, 41: 285-293 (2021). PMC7864891. |
|  | Singla A, Chen Q, Song J, Fedoseienko A, Wijers M, Billadeau DD, van de Sluis B, **Burstein E.** Regulation of murine copper homeostasis by members of the COMMD protein family. *Disease Models and Mechanisms*, 14: dmm045963 (2021). PMC7803461. |
|  | Légeret C, Meyer B, Rovina A, Deigendesch N, Berger CT, Daikeler T, Heijnen I, **Burstein E**, Köhler H, Recher M. JAK inhibition in a patient with X-linked reticulate pigmentary disorder. *Journal of Clinical Immunology*, 41: 212-216 (2021). PMC7846528. |
|  | Kumar R, Singh AK, Starokadomskyy P, Luo W, Thiess A, **Burstein E**, Venuprasad K. Cutting Edge: Hypoxia-Induced Ubc9 Promoter Hypermethylation Regulates IL-17 Expression in Ulcerative Colitis. *Journal of Immunology*, 206: 936-940 (2021). PMC7889719. |
|  | Llano EM, Shrestha S, **Burstein E**, Boktor M, Fudman DI. Favorable Outcomes Combining Vedolizumab with Other Biologics or Tofacitinib for Treatment of Inflammatory Bowel Disease. *Crohn's & Colitis 360*, otab030, https://doi.org/10.1093/crocol/otab030 (2021). |
|  | Liu Z, Wang Y, Yang F, Yang Q, Mo X, **Burstein E**, Jia D, Cai XT, Tu Y. GMPPB-congenital disorders of glycosylation associate with decreased enzymatic activity of GMPPB. *Molecular Biomedicine*. 2: 132021 (2021). PMC8607393. |
|  | Bavli N, Lee N, Sarode R, **Burstein E**, Rambally S. Complete ADAMTS13 Remission in a Patient with Refractory Autoimmune-Mediated Thrombotic Thrombocytopenic Purpura after Infliximab. *Transfusion and Apheresis Science*, 60: 103213 (2021). PMID: 34400095. |
| 1. =
 | Murphy CC, Cirillo PM, Krigbaum NY, Singal AG, Lee MJ, Zaki T, **Burstein E**, Cohn BA. Maternal obesity, pregnancy weight gain, and birth weight and risk of colorectal cancer. *Gut*, 71: 1332-1339 (2022). PMC8866526. |
|  | Giridharan SSP, Luo G, Rivero-Rios P, Steinfeld N, Tronchere H, Singla A, **Burstein E**, Billadeau DD, Sutton MA, Weisman LS. Lipid kinases VPS34 and PIKfyve coordinate a phosphoinositide cascade to regulate retriever-mediated recycling on endosomes. *Elife*, 11: e697092022 (2022). PMC8816382 |
|  | Dharwadkar P, Greenan G, Stoffel EM, **Burstein E**, Pirzadeh-Miller S, Lahiri S, Mauer C, Singal AG, Murphy CC. Racial and ethnic disparities in germline genetic testing of patients with young-onset colorectal cancer. *Clinical Gastroenterology and Hepatology*, 20: 353-361 (2022). PMC33359728. |
|  | Gu P, Clifford E, Gilman A, Chang C, Moss E, Fudman DI, Kilgore P, Cvek U, Trutschl M, Alexander JS, **Burstein E**, Boktor M. Improved Healthcare Access Reduces Requirements for Surgery in Indigent IBD Patients Using Biologic Therapy: A 'Safety-Net' Hospital Experience. *Pathophysiology*, 29: 383-393 (2022). PMC9326631. |
|  | Zhang X, Mo X, Liu Z, Tang Y, Yang Q, Liu M, Qin J, Chen L, Chen L, Hu X, Li W, Zhang Y, Cui Y, Tan S, Wang W, Chi S, Jiang P, Li S, Zhou L, Liu Q, **Burstein E**, Jia D. SCGN deficiency is a risk factor for autism spectrum disorder. *Signal Transduction and Targeted Therapy*, 8: 3 (2023). PMC9806109.  |
|  | Singh AK, Kumar R, Yin J, Brooks JF, Kumar J, Conlon KP, Basrur V, Chen Z, Han X, Hooper LV, **Burstein E**, Venuprasad K. RORt-Raftlin1 complex regulates the pathogenicity of Th17 cells and colonic inflammation. *Nature Communications*, 14: 4972. (2023). PMC10435467. |
|  | Boesch DJ**¥**, Singla A**¥**, Han Y**¥**, Kramer DA, Liu Q, Suzuki K, Juneja P, Zhao X, Long X, Medlyn MJ, Billadeau DD, Chen Z**§**, Chen B**§**, **Burstein E§**. Structural Organization of the Retriever-CCC Endosomal Recycling Complex. *Nature Structural and Molecular Biology*, 31: 910-924(2024). **¥§**Equal contributors. *\*\*Featured article, News & Views summary.* |
|  | Yang Q, **Burstein E**, Jia D. Human Peri-Gastruloids: A Significant Advancement in Embryology Research. *MedComm*, 5: e445(2023). PMC10757121. |
|  | Tan S**¥**, Santolaya JL, Wright TF, Liu Q, Fujikawa T, Chi S, Bergstrom CP, Lopez A, Chen Q, Vale G, McDonald JG, Schmidt A, Vo N, Kim J, Baniasadi H, Li L, Zhu G, He TC, Zhan X, Obata Y, Jin A, Jia D, Elmquist JK, Sifuentes-Dominguez L**¥**, **Burstein E¥**. Interaction between the gut microbiota and colonic enteroendocrine cells regulates host metabolism. *Nature Metabolism*, 6: 1076-1091 (2024). **¥**Co-corresponding authors. PMID: 38777856. *\*\*Featured article, News & Views summary.* |
|  | Yin J, El-Najjar Y, Cordova N, Touma M-J, Nguyen N, Boktor M, **Burstein E**, Fudman DI. Short-term use of upadacitinib in combination with biologic therapy for inducing clinical remission in patients with active inflammatory bowel disease. *Inflammatory Bowel Diseases*, In Press (2024). |
|  | Singla A**¥**, Boesch DJ**¥**, Fung HYJ**¥**, Ngoka C, Enriquez AS, Song R, Kramer DA, Han Y, Juneja P, Billadeau DD, Bai X, Chen Z, Turer EE**§**, **Burstein E§**, Chen B**§**. Structural basis for Retriever-SNX17 assembly and endosomal sorting. *Nature Communications* – Under revision. Preprint available at biorXiv [2024.03.12.584676], (2024). **¥§**Equal contributors. |

**Non-peer reviewed scientific or medical publications/materials in print or other media**

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|  | **Burstein E.** Contributor to “*Textbook of Gastroenterology, Self-Assessment Review*”, Third Edition, Editors: Yamada T and Chey WD. Published by Lippincott, Williams & Wilkins (2001). |
|  | **Burstein E.** Enfermedad Celiaca. Contributor to “*Avances en Gastroenterología y Hepatología*”. Editors: Bussalleu A, Ramirez-Ramos A, Tagle M. Published by Cayetano Heredia University Press, Lima, Peru (2008). |
|  | **Burstein E**. Book review: Cell/Tissue Injury and Cytoprotection/Organoprotection in the Gastrointestinal Tract: Mechanisms, Prevention and Treatment. *Gastroenterology*, 144: 1568(2013). |
|  | **Burstein E.** Chapter 1: Cellular Growth and Neoplasia. Contributor to “*Sleisenger and Fordtran’s: Gastrointestinal and Liver Disease*”. 11th Edition, Editors: Feldman M, Friedman LS, Brandt LJ. Published by Elsevier Saunders, (2020). |