

CURRICULUM VITAE
The Johns Hopkins University School of Medicine

March 20, 2021

Alyssa M. Parian, M.D.

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

2014 - present Assistant Professor
 Division of Gastroenterology and Hepatology
 Department of Medicine
 Johns Hopkins University School of Medicine

Personal Data

Business Address: 4940 Eastern Avenue
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Education and Training

Undergraduate

2000 – 2004 B.S., Neuroscience, Boston College, Chestnut Hill, MA

Doctoral

2004 – 2008 M.D., Rutgers University – New Jersey Medical School, Newark, NJ

Postdoctoral

2008 – 2011 Internal Medicine Residency, New York Presbyterian – Weill Cornell, New York, NY
2011 – 2014 Gastroenterology & Hepatology Fellowship, Johns Hopkins Hospital, Baltimore, MD

Professional Experience

2014 – present Assistant Professor, Division of Gastroenterology & Hepatology, Department of Medicine, Johns Hopkins University School of Medicine

PUBLICATIONS:

H index: 17

Original Research [OR]

1. **Parian A**, Ha C. Older age and steroid use are associated with increasing polypharmacy and medication interactions among inflammatory bowel disease patients. *Inflamm Bowel Dis*. 2015 Jun;21(6):1392-400.
2. **Parian A**, Koh J, Limketkai BN, Eluri S, Rubin DT, Brant SR, Ha CY, Bayless TM, Giardiello F, Hart J, Montgomery E, Lazarev MG. Association between serrated epithelial changes and colorectal dysplasia in inflammatory bowel disease. *Gastrointest Endosc*. 2016 Jul;84(1):87-95. *This was one of the first studies to report the significance of serrated epithelial change which found it was strongly associated with the development of colorectal neoplasia in patients with inflammatory bowel disease.*
3. Mann ER, Bernardo D, English NR, Landy J, Al-Hassi HO, Peake ST, Man R, Elliott TR, Stranger H, Lee GH, **Parian A**, Brant SR, Lazarev M, Hart AL, Li X, Knight SC. Compartment-specific immunity in the human gut: properties and functions of dendritic cells in the colon versus the ileum. *Gut*. 2016 Feb;65(2):256-70. *Myself and one*

other physician were responsible for enrolling and collecting over 90% of the samples for this project and were responsible for oversight of all clinical aspects of the study.

4. **Parian A**, Limketkai B, Koh J, Bitton A, Brant SR, Cho JH, Duerr RH, McGovern DP, Proctor DD, Reguiero M, Rioux JD, Schumm PP, Taylor KD, Silverberg MS, Steinhart AH, Ruben Hernaez, Lazarev M. Appendectomy does not decrease the risk of future colectomy in ulcerative colitis: results from a large cohort and meta-analysis. *Gut*. 2017 Aug;66(8):1390-1397. *This changed the practice of ulcerative colitis management as it showed that appendectomy is not a treatment for ulcerative colitis and instead leads to higher rates of colectomy. This has been cited over 40 times and is published in the top rated gastroenterology journal.*
5. Limketkai BN, **Parian AM**, Chen PH, Colombel JF. Treatment with Biologic Agents has not Reduced Surgeries among Patients with Crohn's Disease with Short Bowel Syndrome. *Clin Gastroenterol and Hepatol*. 2017 Dec;15(12):1908-1914.e2.
6. Akhuemonkhan E, **Parian A**, Miller K, Hanauer S, Hutfless S. Prevalence and screening for anaemia in mild to moderate Crohn's disease and ulcerative colitis in the United States, 2010-2014. *BMJ Open Gastroenterol*. 2017 Jul 3.
7. Eluri S, **Parian AM**, Limketkai BN, Ha CY, Brant SR, Dudley-Brown S, Efron JE, Fang SG, Gearhart SL, Marohn MR, Meltzer SJ, Lazarev M. Nearly a Third of High-Grade Dysplasia and Colorectal Cancer Is Undetected in Patients with Inflammatory Bowel Disease. *Dig Dis and Sci*. 2017 Dec;62(12):3586-3593.
8. Leeds IL, Truta B, **Parian AM**, Chen SY, Efron JE, Gearhart SL, Safar B, Fang SH. Early surgical intervention for acute ulcerative colitis is associated with improved postoperative outcomes. *J Gastrointest Surg*. 2017 Oct;21(10):1675-1682.
9. Cai JX, Barrow J, **Parian A**, Brant SR, Dudley-Brown S, Efron J, Fang S, Gearhart S, Marohn M, Safar B, Truta B, Wick E, Lazarev M. Routine Pouchoscopy Prior to Ileostomy Takedown May Not Be Necessary in Patients with Chronic Ulcerative Colitis. *Dig Dis*. 2018;36(1):72-77.
10. Pezhouh MK, Miller JA, Sharma R, Eze O, Waters K, Westerhoff MA, **Parian AM**, Lazarev MG, Voltaggio L. Refractory inflammatory bowel disease: is there a role for Epstein-Barr virus? A case controlled study using highly sensitive EBV encoded small RNA1 In Situ hybridization. *Hum Pathol*. 2018 Aug 15.
11. Wang P, Hu J, Ghadermarzi S, Raza A, O'Connell D, Xiao A, Ayyaz F, Zhi M, Zhang Y, Parekh NK, Lazarev M, **Parian A**, Brant SR, Bedine M, Truta B, Hu P, Banerjee R, Hutfless SM. Smoking and Inflammatory Bowel Disease: A Comparison of China, India, and the USA. *Dig Dis Sci*. 2018 Oct;63(10):2703-2713.
12. Bettner W, Rizzo A, Brant S, Dudley-Brown S, Efron J, Fang S, Gearhart S, Marohn M, **Parian A**, Kherad Pezhouh M, Melia J, Safar B, Truta B, Wick E, Lazarev M. Low Incidence of Dysplasia and Colorectal Cancer Observed among Inflammatory Bowel Disease Patients with Prolonged Colonic Diversion. *Inflamm Bowel Dis*. 2018 Apr 23;24(5):1092-1098.
13. Akhuemonkhan E, **Parian A**, Carson KA, Hutfless S. Adverse Reactions After Intravenous Iron Infusion Among Inflammatory Bowel Disease Patients in the United States, 2010-2014. *Inflamm Bowel Dis*. 2018 Jul 12;24(8):1801-1807.
14. Fleisher M, Marsal J, Lee SD, Frado LE, **Parian A**, Koreltiz BI, Feagan BG. Effects of Vedolizumab Therapy on Extraintestinal Manifestations of Inflammatory Bowel Disease. *Dig Dis Sci*. 2018 Apr;63(4):825-833.
15. Adler BL, Pezhouh MK, Kim A, Luan L, Zhu Q, Gani F, Yarchoan M, Chen J, Voltaggio L, **Parian A**, Lazarev M, Lauwers GY, Pawlik TM, Montgomery EA, Jaffee E, Le DT, Taube JM, Anders RA. Histopathological and immunophenotypic features of ipilimumab-associated colitis compared to ulcerative colitis. *J Intern Med*. 2018 Jun;283(6):568-577.
16. Naidoo J, Zhang J, Lipson EJ, Forde PM, Suresh K, Moseley KF, Mehta S, Kwatra SG, **Parian AM**, Kim AK, Probasco JC, Rouf R, Thorne JE, Shanbhag S, Riemer J, Shah AA, Pardoll DM, Bingham CO, Brahmer JR, Cappelli LC. A Multidisciplinary Toxicity Team for Cancer Immunotherapy-Related Adverse Events. *J Natl Compr Canc Netw*. 2019 Jun 1;17(6):712-720.

17. Limketkai BN, Iheozor-Ejiofor Z, Gjuladin-Hellon T, **Parian A**, Matarese LE, Bracewell K, MacDonald JK, Gordon M, Mullin GE. Dietary interventions for the induction and maintenance of remission in inflammatory bowel disease. *Cochrane Database Syst Rev.* 2019 Feb 8.
18. **Parian AM**, Limketkai BN, Chowdhury R, Brewer GG, Salem G, Falloon K, Selaru F, Melia J, Lazarev MG. Serrated Epithelial Change Is Associated With High Rates of Neoplasia in Ulcerative Colitis Patients: A Case-Controlled Study and Systematic Review with Meta-analysis. *Inflamm Bowel Dis.* 2020 Dec 9;izaa312. doi: 10.1093/ibd/izaa312. *This built on our previous study (OR#2) and created the largest cohort of ulcerative colitis patients with serrated epithelial change published. These patients were matched with ulcerative colitis patients without serrated epithelial change. The study found that there was a significantly higher risk of colorectal neoplasia (26%) in patients with serrated epithelial change.*
19. Singhi AD, Waters KM, Makhoul EP, **Parian A**, Lazarev MG, Proksell SS, Dueker JM, Schwartz MB, Wald AI, Nikiforova MN, Montgomery EA. Targeted Next-Generation Sequencing Supports Serrated Epithelial Change as an Early Precursor to Inflammatory Bowel Disease-Associated Colorectal Neoplasia. *Hum Pathol.* 2021 Mar 13:S0046-8177(21)00043-5. doi: 10.1016/j.humpath.2021.03.002. Epub ahead of print. *I collected the majority of the specimens used in this study and assisted with the clinical aspects of the study.*

Review Articles [RA]

1. **Parian A**, Lazarev M. Who and how to screen for cancer in at-risk inflammatory bowel disease patients. *Expert Reviews of Gastroenterology and Hepatology.* 2015 Jan 16:1-16
2. **Parian AM**, Limketkai BN, Shah ND, Mullin GE. Nutraceutical Supplement for Inflammatory Bowel Disease. *Nutr Clin Pract.* 2015 Aug;30(4):551-8.
3. Salem A, Hamouda D, **Parian AM**. Diagnosis and Management of IgG4 Autoimmune Pancreatitis. *J Pancreas.* 2015; 16(4):326-334.
4. Shah ND, **Parian AM**, Mullin GE, Limketkai BN. Oral Diets and Nutrition Support for Inflammatory Bowel Disease: What is the Evidence? *Nutr Clin Pract.* 2015 Aug;30(4):462-73.
5. **Parian A**, Mullin GE. Fish Consumption and Health: The Yin and Yang. *Nutr Clin Pract.* 2016 Aug;31(4):562-5.
6. **Parian A**, Limketkai BN. Dietary Supplement Therapies for Inflammatory Bowel Disease: Crohn's Disease and Ulcerative Colitis. *Curr Pharm Des.* 2016;22(2):180-8.
7. Limketkai BN, **Parian AM**, Shah ND, Colombel JF. Short Bowel Syndrome and Intestinal Failure in Crohn's Disease. *Inflamm Bowel Dis.* 2016 May;22(5):1209-18.
8. **Parian A**. Disease Management Strategies for Moderate to Severe IBD in Adults. *Journal of Managed Care Medicine;* 2017;267 (20):15-20.
9. Limketkai BN, Mullin GE, Limsui D, **Parian AM**. Role of Vitamin D in Inflammatory Bowel Disease. *Nutr Clin Pract.* 2017 Jun;32(3):337-345.
10. **Parian AM**, Lazarev MG. Serrated Colorectal Lesions in Patients with Inflammatory Bowel Disease. *Gastroenterol Hepatol (N Y).* 2018 Jan;14(1):19-25.
11. Limketkai BN, Wolf A, **Parian AM**. Nutritional Interventions in the Patient with Inflammatory Bowel Disease. *Gastroenterol Clin North Am.* 2018 Mar;47(1):155-177.
12. Limketkai BN, Hendler S, Ting PS, **Parian AM**. Fecal Microbiota Transplantation for the Critically Ill Patient. *Nutr Clin Pract.* 2019 Feb;34(1):73-79.
13. Mullin GE, Limketkai BN, **Parian AM**. Fish Oil for Inflammatory Bowel Disease: Panacea or Placebo? *Gastroenterology Clinics of North America.* 2021

Case Reports [CR]

1. Canakis A, Hopkins M, **Parian A**. Large Pedunculated Polyp Diagnosed as Inverted Colonic Diverticula. ACG Case Rep J. 2017 Aug 16;4e96.

Book Chapters, Monographs [BC]

1. **Parian A**. Inflammatory Bowel Disease. Mullin GE, Marian MJ (Eds). (2015) Integrative Nutrition Therapy. Boca Raton, FL: Taylor & Francis Group. p:347-374.
2. **Parian A**, Mullin GE. Medications for GERD. Weil A (Ed). (2017) Mind Over Meds. Little, Brown and Company. p:47-60.
3. **Parian A**. Chapter 15: Inflammatory Bowel Disease. Marian MJ, Mullin GE (Eds). (2017). Integrating Nutrition Into Practice. (1st ed). CRC Press. p. 347-374.
4. **Parian AM**, Mullin GE, Langhorst J, Brown AC. Chapter 50: Inflammatory Bowel Disease. Rakel D (Ed). (2018). Integrative Medicine. (4th ed). Elsevier. p. 501-516.
5. Mullin GE, **Parian AM**, Singh M. Why Integrative Gastroenterology? Mullin GE, Singh M, **Parian A** (Eds). (2019). Integrative Gastroenterology (2nd ed). Oxford University Press.
6. Canakis A, Bhalla J, **Parian A**. Inflammatory Bowel Disease. Mullin GE, Singh M, **Parian A** (Eds). (2019). Integrative Gastroenterology (2nd ed). Oxford University Press.

Books, Textbooks [BK]

1. Mullin GE, Singh M, **Parian A**. (2019). Integrative Gastroenterology (2nd ed) (Weil Integrative Medicine Library). Oxford University Press.

Other Publications:

Letter To The Editor

1. **Parian A**, Lazarev M. Response. Gastrointest Endosc. 2017 Feb;85(2):461-462.

Proceedings Reports [PR] Not applicable

Guidelines/Protocols, Consensus Statement, Expert Opinion, Consortium Articles [GL] Not applicable

Editorials [ED] Not applicable

Methods and Techniques, "How I Do It" articles [MT] Not applicable

Research Letters/White Papers/Brief Reports [RL] Not applicable

Published Curricula [PC], Learner Assessment Tools, Educational Evaluations, Assessment/Evaluation Instruments [PC] Not applicable

Letters, Correspondence [LT] Not applicable

Media Releases or Interviews [MR]

- 04/2016 Ulcerative colitis: Appendectomy increases the risk of colon removal, Popular Science. Interview <http://www.popsci.it/colite-ulcerosa-appendicectomia-aumenta-il-rischio-di-asportazione-del-colon.html>
- 03/2018 Fecal Transplant Increasingly Seen As an Option to Treat a Nasty Superbug, U.S. News & World Report. Interview <https://health.usnews.com/health-care/patient-advice/articles/2018-03-13/fecal-transplant-increasingly-seen-as-an-option-to-treat-a-nasty-superbug>
- 6/2019 Maine Med patient proves after surgery that necessity is the mother of invention, Sun Journal. Interview <https://www.sunjournal.com/2019/06/04/invention-by-maine-med-patient-could-help-people-who-use-ostomy-bags/>

- 12/2019 Spotlight on Perianal Fistula Research, Johns Hopkins Meyerhoff IBD Center, YouTube. Media Release
<https://www.youtube.com/watch?v=73Lq344Vd0o>
 *Has > 27,000 views
- 1/2020 What to Know About Colds and Flu if You Have Crohn's, Everyday Health. Interview
<https://www.everydayhealth.com/crohns-disease/what-know-about-cold-flu/>
- 04/2020 Infusion Center Directors Shuffle Treatment Services in the Era of COVID-19, Medscape. Interview
<https://www.medscape.com/viewarticle/928622>, and <https://www.the-hospitalist.org/hospitalist/article/220633/coronavirus-updates/infusion-center-directors-shuffle-treatment-services?channel=36603>
- 12/2020 7 Types of Poo and What They're Trying To Tell You. Women's Health. Interview
<https://www.msn.com/en-gb/health/familyhealth/7-types-of-poo-and-what-theyre-trying-to-tell-you/ar-BB1ccDkQ>

Other Media [OM] (Videos, Websites, Blogs, Social Media, etc.)

- 2016 Crohn's and Colitis Foundation Facebook Chat
 The risks and management of colorectal cancer was discussed and patient questions were answered via social media outreach

FUNDING

EXTRAMURAL Funding
Research Extramural Funding

Current

- 2018 – current A Multidisciplinary Bioengineering Approach to Fistula-in-Ano in Crohn's Patients
 G-2019PG-CD025
 The Helmsley Charitable Trust
 \$1,500,000
 PI, 20% effort
- 2019 – current Adult Allogeneic Expanded Adipose-derived Stem Cells (eASC) for the Treatment of Complex Perianal
 Fistula(s) in Patients With Crohn's Disease (ADMIRE-CD-II)
 Tigenix
 Site PI, 2.5% effort
- Previous
- 2015 – 2016 Estimating the prevalence of iron-deficiency anemia and its treatment among inflammatory bowel disease
 patients in the United States, 2010-2013
 Luitpold
 \$213,469
 PI: Susan Hutfless
 Co-investigator, 10% effort
- 2018 – 2019 A Phase 4 Open-Label Study to Evaluate Vedolizumab IV Dose Optimization on Treatment Outcomes In
 Nonresponders With Moderately to Severely Active Ulcerative Colitis (ENTERPRET)
 Takeda
 Site PI, 2.5% effort
- 2018 – 2020 Efficacy and Safety of Filgotinib in the Treatment of Perianal Fistulizing Crohn's Disease (Divergence2)
 Gilead Sciences
 Site PI, 2.5% effort
- 2018 – 2020 A Phase 3, Multicenter, Randomized, Double-blind, Placebo-controlled Trial of Oral RPC1063 (Ozanimod)
 as Induction and Maintenance Therapy for Moderate to Severe Ulcerative Colitis

Celgene
Site PI, 2.5% effort

Educational Extramural Funding – Not applicable
Clinical Extramural Funding - Not applicable
System Innovation or Quality Improvement Extramural Funding - Not applicable
Other Extramural Funding, including philanthropy - Not applicable

INTRAMURAL Funding Not applicable.

CLINICAL ACTIVITIES

Clinical Focus

My clinical focus is caring for patients with inflammatory bowel disease (IBD). I've built a practice over my first two years on faculty through internal referrals as well as referrals from community gastroenterologists so that 90% of my patients have IBD. I care for IBD patients long-term, as well as providing second opinion consultations for other gastroenterologists for complex IBD cases. Within IBD, I sub-specialize on perianal Crohn's disease and colonic dysplasia. I consistently receive 4.9 or higher out of 5.0 patient satisfaction marks on the StarCards.

Certification

Medical, other state/government licensure

2011 – current Maryland State Medical License, D73723

Boards, other specialty certification

2011 – current Internal Medicine Board Certification

2014 – current Gastroenterology & Hepatology Board Certification

Clinical (Service) Responsibilities

2014 – 2018 70% clinical effort. 2 days clinic, 1.5 days endoscopy. Inpatient gastroenterology consult and Mary Elizabeth Garret (MEG) gastroenterology service at JHH/JHBMC averaging 5 weeks per year. Gastroenterology night and weekend calls.

2018 – 2020 70% clinical effort. 1.5 days clinic, 1.5 days endoscopy, 0.5 days clinical administration as Medical Director of GI Infusion Services. Inpatient consult and MEG gastroenterology service averaging 5 weeks per year at JHH/JHBMC. Gastroenterology night and weekend calls.

2020 – current 70% clinical effort. 1.5 days clinic, 1.0 days endoscopy, 1.0 day clinical administration as Co-Clinical Director of Gastroenterology. Inpatient consult and MEG gastroenterology service averaging 5 weeks per year at JHH/JHBMC. Gastroenterology night and weekend calls.

Clinical Productivity

2014 – 2020 Reached 80% of the Gastroenterology RVU target 90% of the time.

Clinical Draw from outside local/regional area

2020 34% of patients are from out of state or international

Membership in or examiner for specialty board: Not applicable

Clinical Program Building / Leadership: Not applicable

Clinical Demonstration Activities to external audience, on or off campus Not applicable

Development of nationally/internationally recognized clinical standard of care (*may not be published in peer-reviewed journals*): Not applicable

EDUCATIONAL ACTIVITIES

Educational Focus

I very much enjoy education and have been actively involved in this throughout my career. This has included tutoring during undergraduate and medical school, chief resident during residency and co-chief fellow during my fellowship. At Hopkins I have taught medical students, and was the Director of the Gastroenterology section of the Genes to Society Course. I established our Inflammatory Bowel Disease Advanced Fellowship and am the Program Director for this program. I was invited to Asahi Hospital in Japan to teach gastroenterology to their students. I serve as a preceptor for general GI fellows in clinic and endoscopy, as well as teaching them Inflammatory Bowel Disease.

Teaching

Classroom instruction

JHMI/Regional

- 2012-2013 Preceptor, 3rd year medical students, Transition to the Wards, Johns Hopkins University; Hands on clinical teaching to 3rd year medical students on history taking and physical exam skills before starting their clinical rotations
- 2014 – present Lecturer, 2nd year medical students, Genes to Society, Johns Hopkins School of Medicine
- 2014 – present Small group leader, 2nd year medical students, Genes to Society, Johns Hopkins School of Medicine; Supervised small groups of second year medical students working through clinical gastroenterology cases and provided targeting chalk board teaching

Clinical instruction

JHMI/Regional

- 2014 – present Preceptor, GI Fellow, Clinic and Endoscopy, Johns Hopkins Hospital; Preceptor for general GI fellows during clinic and endoscopy

International

- 2017 Clinical Teaching Rounds in Gastroenterology & Hepatology, Asahi General Hospital, Asahi, Japan; Invited to provide formal lectures and teaching rounds for medical students and residents

CME instruction See invited lectures

Workshops /seminars Not applicable

Mentoring

Pre-doctoral Advisees /Mentees Not applicable

Post-doctoral Advisees /Mentees

- 2014 – 2015 Animesh Jain, MD, Assistant Professor Medicine, University of North Carolina
Mentored him during his fellowship in clinical and endoscopic inflammatory bowel disease, co-authored 3 posters of distinction at the largest gastroenterology meeting, Digestive Diseases Week
- 2014 – 2015 Swathi Eluri, MD, Assistant Professor of Medicine, University of North Carolina
I mentored her during her internal medicine residency at Johns Hopkins in clinical inflammatory bowel disease, clinical research, data abstraction and database management. We authored OR#2 and OR#7 together. She matched at her top choice gastroenterology fellowship – University of North Carolina where she remains on faculty.
- 2015 – 2019 Ebose Akhuemonkhan, MD, MPH, Internal Medicine Provider at Scranton University
I mentored her during a post-doctorate fellowship she was doing with Dr. Susan Hutfless. I mentored her in clinical medicine and gastroenterology. She shadowed my clinics and I taught her basic patient history taking and examination skills. We worked on a grant together with Dr. Hutfless and published OR#6 and OR#13 together. I wrote a letter for her internal medicine residency application where she matched at one of her top choices Scranton University where she remains on faculty.
- 2016 – current Andrew Canakis, DO, Internal Medicine Resident at Boston University
Mentored him for career advice, applications for internal medicine residency and GI fellowship where he matched at his top choices of Boston University for Internal Medicine and University of Maryland for Gastroenterology Fellowship. We co-authored a case report and a book chapter.
- 2017 – 2018 Weston Bettner, MD, University of Pittsburgh Medical Center
I mentored him during his internal medicine residency at Johns Hopkins and we co-authored and original research publication (OR #12). I trained him on data collection and REDCAP database management.
- 2017 – 2018 Jennifer Cai, MD, MPH, Assistant Professor of Medicine and Associate Director of Motility Lab at Brigham Women's Hospital
I mentored her during her internal medicine residency at Johns Hopkins and taught her clinical inflammatory bowel disease including history taking and physical exam skills as well as clinical research including data collection and database management. We co-authored OR#9. She is now on faculty at Brigham Women's Hospital.
- 2017 – 2020 Katie Falloon, MD, Gastroenterology Fellow at Cleveland Clinic
Mentored her during her residency on clinical inflammatory bowel disease, clinical research design and data abstraction and assisted her gastroenterology fellowship application where she matched at her top choice in Cleveland Clinic. Co-authored OR # 18

- 2017 – current Brian Ting, MD, Gastroenterology Fellow at Johns Hopkins.
I mentored him during his internal medicine residency and his gastroenterology fellowship. I mentored him on clinical gastroenterology including endoscopy during his residency. I assisted him with his fellowship application and was a letter writer for him where he matched at his top choice – Johns Hopkins for gastroenterology fellowship. We published an invited review article together RA#12. Due to his excellent clinical skills he has been offered a position to stay on faculty at John Hopkins for 2022.
- 2017 – current Jaideep Bhalla, MBBS, Maulana Azad Medical College, New Delhi, India.
I mentored him during a 3 month research elective at Johns Hopkins where I taught him clinical gastroenterology, basic theories of endoscopy, compassionate history taking. I mentored him on basic clinical research including clinical design, data abstraction and database management. He co-authored a book chapter BC#6.
- 2018 – 2019 Jean Donet, MD, Assistant Professor of Medicine, UCSF Department of Gastroenterology
I was his mentor during his 1 year of advanced inflammatory bowel disease fellowship. He received two travel awards for his research to the largest gastroenterology conference – Digestive Disease Week and the largest inflammatory bowel disease conference – Crohn’s and Colitis Congress. He presented 5 abstracts, 3 of which were posters of distinction and published 3 peer reviewed manuscripts.
- 2019 – 2020 George Salem, MD, Assistant Professor of Medicine, Oklahoma University Department of Gastroenterology
I was his mentor during his 1 year of advanced inflammatory bowel disease fellowship. He received two travel awards for his research to the largest gastroenterology conference – Digestive Disease Week and the largest inflammatory bowel disease conference – Crohn’s and Colitis Congress. He presented 3 abstracts, 2 of which were posters of distinction and published 4 peer reviewed manuscripts. He was awarded the only fellow teaching award for outstanding teaching and lectures.
- 2019 – 2020 Catele Antunes, MD, Assistant Professor of Medicine, Oklahoma University Department of Gastroenterology
I was her mentor during her 1 year of advanced inflammatory bowel disease fellowship. She published 9 book chapters, 3 abstracts, 2 of which were posters of distinction.
- 2019 – present Gala Godoy Brewer, Post-doctorate Fellow, Johns Hopkins School of Medicine
Mentored her during her post doctorate position from the Helmsley Trust Grant in clinical inflammatory bowel disease, clinical research design, systematic review with meta-analysis, and oversaw her applications and was a letter writer for her internal medicine residency application where she matched at her first choice Jackson Memorial in Miami, FL. We co-authored OR#18 together and have several manuscripts under review
- 2019 – 2021 Monica Choe, BSN, RN, Johns Hopkins School of Nursing/ DNP, I was her DNP Project Mentor and worked on a project for expedited post hospitalization visits for IBD patients. She received the “Most Innovative” poster award and the “Outstanding DNP Project Award”
- 2020 – present Mohamed Ismail, Inflammatory Bowel Disease Fellow, Johns Hopkins Hospital
I am his mentor during his 1 year of advanced inflammatory bowel disease fellowship. He has 5 abstracts accepted for the largest gastroenterology conference – Digestive Disease Week and has been accepted to share his research nationally in an IBD fellow’s forum. He has multiple manuscripts in progress to complete by the end of his fellowship year.

Educational Program Building / Leadership

- 2016 – 2018 Co-director, Genes to Society 2nd year Medical School, Johns Hopkins University School of Medicine
- 2019 Director, Genes to Society 2nd year Medical School, Johns Hopkins University School of Medicine+
- 2017 – present Program Director, Inflammatory Bowel Disease Advanced Fellowship; I began the IBD fellowship at Johns Hopkins and serve as the Program Director, successfully secured funding to support the IBD fellow each year since its inception. It is now an internationally recognized fellowship with applications this past year from Canada, Ireland, Egypt, Brazil. All four of the graduated/graduating fellows have remained within academic medicine and are inflammatory bowel disease experts on their respective institutions
- 2018 Executive Certificate in Healthcare Leadership and Management, Carey Business School
- 2020 Leading Organizational Change, Carey Business School

Educational Demonstration Activities to external audiences, on or off campus

- 2017 Treatment of anal intraepithelial dysplasia using Medtronic Anal Wand, CME conference, Viva la Vida, Cancun, Mexico

RESEARCH ACTIVITIES

Research Focus

My research interest within the field of gastroenterology is focused on Inflammatory Bowel Diseases, specifically dysplasia in IBD and perianal disease in Crohn's disease. My mentor, Dr. Lazarev and I have reported on the novel histopathological finding of serrated epithelial change, a potential early marker for colonic dysplasia in IBD patients. We are continuing this work looking closer at the genetic profile of serrated epithelial change compared to the normal surrounding mucosa and the metachronous neoplasia that develops. I received a large Helmsley Trust grant to investigate the use of novel therapies for the treatment of perianal Crohn's disease under the mentorship of Dr. Florin Selaru. This is a multidisciplinary team involving a bioengineer, radiologist, surgeon, basic scientist and epidemiologist that I have been leading for the past 2 years.

Research Program Building / Leadership Not applicable

Research Demonstration Activities Not applicable

Inventions, Patents, Copyrights Not applicable

Technology Transfer Activities Not applicable

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

System Innovation Focus Not applicable

System Innovation and Quality Improvement efforts within JHMI: Not applicable

System Innovation and Quality Improvement efforts outside of JHMI: Not applicable

System Innovation and Quality Improvement Program Building/Leadership: Not applicable

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

Date	Role, Committees, any explanatory notes
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2017 – present	Medical Director of Johns Hopkins Gastroenterology Outpatient Infusion Centers; I manage infusion medical protocols, work closely with financial team for medication reimbursement, run monthly multidisciplinary meets with nursing, financial clearance, managers and physicians. Helped to grow the infusion center volume by over 200% over 2 years. Opened a new infusion center in Columbia. Streamlined ordering process. Nominated for the Clinical Excellence Award for our innovative solutions for infusion during COVID.
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2020 – 2021	Associate Clinical Director of Gastroenterology and Hepatology, Johns Hopkins University Department of Medicine We developed new programs and interventions to improve inpatient, outpatient and endoscopy note closure to > 90% closed within the designated time frame. We increased access for urgent visit appointments at our Knoll North Gastroenterology Office by providing a direct clinic line for scheduling patients within a 2-week time frame. Managed the COVID pandemic within our division by developing a new team structure to cover inpatient and call coverage equally while protecting our most vulnerable faculty and arranged educational zoom sessions and online resources for internal medicine refreshers before covering the wards. We provided weekly zoom COVID updates to the entire division as well as daily emails outlining changes to clinical practice and resources for patients and faculty. We achieved the highest telemedicine conversion rate in the first 4 weeks of the pandemic. Due to close down of endoscopy, we worked with our faculty and administration to offer clinic appointments for patients during the time faculty would have been performing endoscopy. We performed a systematic review of all provider templates to ensure compliance with institution standards. We reviewed and met with all providers and updated templates across the board which will allow more new patients to be seen which improved access to care.
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2021 – present	Co-Clinical Director: As we pivoted from the crisis of COVID to think strategically moving forward, we performed a systematic review of all provider templates to ensure compliance with institution standards. We reviewed and met with all providers and updated templates across the board which will allow more new patients to be seen which improved access to care, decrease wait times and increase revenue. We work weekly with central scheduling to improve clinic and endoscopy fill rates by converting appointment slots to new patients or return patients based on need reported by central scheduling. We help to fill providers endoscopy blocks by targeting direct access patients to gaps in the schedule. We are working to improve flow and efficiency in our ambulatory endoscopy centers and improve safety, quality and decrease the same day
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cancellation rates. We are working on quality metrics in endoscopy including the ability to report adenoma detection rate for each provider.

Editorial Activities

Editorial Board appointments Not applicable

Journal peer review activities

2014 – present Inflammatory Bowel Disease Journal
2016 – present Nutrition in Clinical Practice
2017 – present American Journal of Gastroenterology
2017 – present Alimentary Pharmacology & Therapeutics
2017 – present Clinical Gastroenterology & Hepatology
2019 – present Journal of Gastroenterology & Hepatology

Other peer review activities Not applicable

Advisory Committees, Review Groups/Study Sections

Professional Societies

2009 – present American Gastroenterology Association
2009 – present American College of Gastroenterology
2011 – present Crohn's and Colitis Foundation

Leadership Roles in Professional Societies

2016 – 2019 Training Committee, American College of Gastroenterology
2016 – 2019 Mission Committee, Crohn's and Colitis Foundation
2016 – present Chapter Medical Advisory Committee, Crohn's and Colitis Foundation
2018 – 2020 Nominating Committee, American Gastroenterology Association
2018 – 2021 Patient Education Committee, Crohn's and Colitis Foundation

Conference Organizer Not applicable

Session Chair Not applicable

Consultantships Not applicable

RECOGNITION

Awards, Honors

2004 – 2008 New Jersey Medical School Alumni Scholarship for Academic Excellence
2005 Arnold P. Gold Foundation Award for Humanism in Medicine
2006 Columbian Society Scholarship for Academic and Community Service
2007 Alpha Omega Alpha, national medical honor society, Rutgers University – New Jersey Medical School
2013 Elected for Investing in the Future: Clinical Research in IBD
I was among 15 gastroenterology fellows in the nation to be chosen for this program based on my clinical research. This program was run during the largest gastroenterology conference – Digestive Disease Week and paired us with a senior mentor to critique our research proposal.
2015 Emerging Women's Leadership Program, Johns Hopkins University
2015 – present Firm Faculty on Janeway Firm of the Osler Internal Medicine Residency Program at John Hopkins
2020 Top Doctor Award in Inflammatory Bowel Disease, Baltimore Magazine

Invited Talks

CME talks highlighted by *

JHMI/Regional

2014 Diagnosis and Treatment of IBD and IBS, Good Samaritan Grand Rounds, Baltimore, MD
2014 How do we counsel our IBD patients about the risk of cancer associated with immunosuppressive therapy? Topics in Gastroenterology and Hepatobiliary Update, Johns Hopkins Hospital, Baltimore, MD*
2015 When to worry about cancer in your IBD patients, 15th Annual Gastroenterology and Hepatology Viva la Vida CME Conference, Johns Hopkins University, San Juan, Puerto Rico*

- 2015 IBD in Women: Sensitivity to Special Issues, 15th Annual Gastroenterology and Hepatology Viva la Vida CME Conference, Johns Hopkins University, San Juan, Puerto Rico*
- 2015 The Best Approach to the Patient with Severe Ulcerative Colitis, 41st Annual Topics in Gastroenterology and Hepato-biliary Update, Baltimore, MD*
- 2015 IBD and Pregnancy, What You and Your Patients Should Know, 41st Annual Topics in Gastroenterology and Hepato-biliary Update, Baltimore, MD*
- 2016 How to Attack Acute Ulcerative Colitis in 2016, 33rd Annual Medical and Surgical Gastroenterology: A Multidisciplinary Approach, Johns Hopkins University and University of Colorado, Snowmass, CO*
- 2016 What You Need to Know About Fecal Transplant, 33rd Annual Medical and Surgical Gastroenterology: A Multidisciplinary Approach, Johns Hopkins University and University of Colorado, Snowmass, CO*
- 2016 Endoscopic Therapy in Crohn's Disease, 42nd Annual Topics in Gastroenterology and Hepato-biliary Update, Baltimore, MD*
- 2016 The Future of Fecal Transplantation, 42nd Annual Topics in Gastroenterology and Hepato-biliary Update, Baltimore, MD*
- 2017 New and Emerging Therapies in IBD, 17th Annual Gastroenterology and Hepatology Viva la Vida CME Conference, Johns Hopkins University, San Juan, Puerto Rico*
- 2017 Techniques to Prevent Cancer in Your IBD Patient, 17th Annual Gastroenterology and Hepatology Viva la Vida CME Conference, Johns Hopkins University, San Juan, Puerto Rico*
- 2017 Updates on C. difficile and Fecal Transplant, The Philip A. Tumulty Topics in Clinical Medicine at Johns Hopkins, Baltimore, MD*
- 2017 Approach to Colitis Associated Dysplasia Surveillance in 2017, 43rd Annual Topics in Gastroenterology and Hepato-biliary Update, Baltimore, MD*
- 2017 Clostridium difficile in 2017: What You Need to Know, 43rd Annual Topics in Gastroenterology and Hepato-biliary Update, Baltimore, MD*
- 2018 Clostridium difficile: Update in 2018, 35th Annual Medical and Surgical Gastroenterology: A Multidisciplinary Approach, Johns Hopkins University and University of Colorado, Vail, CO*
- 2018 My Patient Is Pregnant with Crohn's Disease, 35th Annual Medical and Surgical Gastroenterology: A Multidisciplinary Approach, Johns Hopkins University and University of Colorado, Vail, CO*
- 2018 What You Need to Know About PPIs, Edmund G. Beacham 45th Annual Current Topics in Geriatrics, Johns Hopkins University, Baltimore, MD*
- 2018 Diagnosis and Management of Colorectal Dysplasia in IBD, 18th Annual Gastroenterology and Hepatology Viva la Vida, Cancun, MX*
- 2018 Anal Intraepithelial Neoplasia: A Growing Disease, 18th Annual Gastroenterology and Hepatology Viva la Vida, Cancun, MX*
- 2018 What Is The Best Approach to Severe UC?, 44th Annual Topics in Gastroenterology and Hepato-Biliary Update, Johns Hopkins University, Baltimore, MD*
- 2019 Therapeutic Endoscopy in IBD: From Stricture Dilation to Polyp Removal, 45th Annual Topics in Gastroenterology and Hepato-Biliary Update, Johns Hopkins University, Baltimore, MD*
- 2019 Management of Acute Severe Ulcerative Colitis, Johns Hopkins Bayview Medical Center Grand Rounds, Baltimore, MD*
- 2020 Fecal Transplant: Is Stool the New Rule? 20th Annual Gastroenterology and Hepatology Viva la Vida, San Juan, PR*
- 2020 Fistulizing Crohn's Disease: Can We Close the Gap? 20th Annual Gastroenterology and Hepatology Viva la Vida, San Juan, PR*
- 2020 IBD in Pregnancy: Should Immunomodulation Be Stopped After the First Trimester? 20th Annual Gastroenterology and Hepatology Viva la Vida, San Juan, PR*
- 2020 Updates on COVID-19 and its Impact on IBD, Crohn's and Colitis Foundation Patient Education Forum, Baltimore, MD

National

- 2014 An Overview of Inflammatory Bowel Disease, Harlem Hospital Grand Rounds, New York, NY*
- 2016 Disease Management Strategies for Moderate to Severe IBD in Adults, National Association of Managed Care Physicians Spring Forum, Orlando, FL*
- 2017 Sessile Serrated Lesions in IBD, Advances in Colorectal Cancer Prevention in High-Risk Populations: Young Onset & IBD-Associated Neoplasia, University of Chicago, Chicago, IL*
- 2018 Tackling Challenging Decisions in IBD Care in Federal & Public Health Settings, 3rd Annual Prime Federal Seminar Series, Washington, DC*

- 2019 Treating the Patient With Severe Ulcerative Colitis, Thomas Jefferson Methodist Medical Grand Rounds, Philadelphia, PA*
- 2020 Fistulizing Crohn's Disease, Mount Sinai Gastroenterology Grand Rounds, New York, NY*
- 2020 Cancer Prevention in IBD, Eastern Regional American College of Gastroenterology Conference, Washington, DC*
- 2020 Management of Extraintestinal Manifestations in IBD, Eastern Regional American College of Gastroenterology Conference, Washington, DC*

International

- 2015 The Management of IBD, A Global Disease, Normal University Gastroenterology Conference, Hangzhou, China
- 2017 New and Emerging Therapies in IBD, 5th Annual Gastroenterology and Hepatology Symposium, Clemenceau Medical Center, Beirut, Lebanon
- 2017 Preventative Care in IBD: Give It a Shot, 5th Annual Gastroenterology and Hepatology Symposium, Clemenceau Medical Center, Beirut, Lebanon

Visiting Professorships Not applicable

OTHER PROFESSIONAL ACCOMPLISHMENTS

Oral/Podium Presentations

- 2013 Serrated Epithelial Changes Are Associated With Dysplasia in Inflammatory Bowel Disease, Digestive Diseases Week, Orlando, FL
- 2013 Appendectomy and extensive disease are independent predictors of colectomy in ulcerative colitis: results from a large cross-sectional cohort, Digestive Diseases Week, Orlando, FL
- 2014 Serrated Epithelial Change Is Associated with A Longer Time to Dysplasia In Patients with Chronic Ulcerative Colitis, Digestive Diseases Week, Chicago, IL
- 2017 Serrated Epithelial Change in Ulcerative Colitis Patients Is Associated with Higher Rate of Colonic Dysplasia, Digestive Diseases Week, Chicago, IL
- 2020 Creation of Chronic Perianal Crohn's Fistula in Swine, Crohn's and Colitis Congress, Austin, TX

Other

- 2016 – current Crohn's and Colitis Foundation Patient Advocate speaker
Annual patient educational speaker at the Crohn's and Colitis Foundation fundraising walks in Baltimore