CURRICULUM VITAE

The Johns Hopkins University School of Medicine



August 4th, 2022

DEMOGRAPHIC AND PERSONAL INFORMATION

Current Appointments

2021- Professor of Radiology, Division of Diagnostic Radiology, Department of Radiology and

Radiological Science, Johns Hopkins University

2021- Professor of Medicine, Johns Hopkins University
 2022- Professor of Oncology, Johns Hopkins University

Education and Training

Undergraduate

1992 Pre-medical, Crescent Model School, Lahore, Pakistan.

Doctoral/Graduate

1997 M.D., The Aga Khan University, Karachi, Pakistan.

Postdoctoral

1998- 2000	Research Fellow in Radiology, Department of Radiology, Massachusetts General Hospital, Harvard
	Medical School, Boston, MA.
1999	Summer program in Epidemiology and Biostatistics, Harvard School of Public Health, Boston, MA
2000-2002	Research Fellow in Cancer Imaging funded by National Cancer Institute, Department of Radiology, Beth
	Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.
2002-2003	Intern, Internal Medicine, North Shore Medical Center/Salem Hospital, Salem, MA.
2003 -2007	Resident, Diagnostic Radiology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston,
	MA.
2007-2008	Fellow, Abdominal Imaging and Intervention, Brigham and Women's Hospital, Harvard Medical School,

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Boston, MA.

Professional Experience

1998–2002	Research Fellow, Harvard Medical School, Boston, MA
2003-2008	Clinical Fellow, Harvard Medical School, Boston, MA
2008-2014	Assistant Professor of Radiology, Johns Hopkins University School of Medicine, Baltimore, MD
2014-2021	Associate Professor of Radiology, Johns Hopkins University School of Medicine, Baltimore, MD
2021-	Professor of Radiology, Johns Hopkins University School of Medicine, Baltimore, MD

PUBLICATIONS:

Original research (Peer-Reviewed)

- 1. Yoshiura T, Wu O, **Zaheer A,** Reese TG, Sorensen AG. Highly diffusion-sensitized MRI of brain: Dissociation of gray and white matter. MagnReson Med. 2001 May;45(5):734-40.
- Zaheer A, Lenkinski RE, Mahmood A, Jones AG, Cantley LC Frangioni JV. In vivo near-infrared fluorescence imaging of osteoblastic activity. Nat Biotechnol. 2001 Dec;19(12):1148-54.
- Zaheer A, Wheat TE, Frangioni JV. IRDye78 Conjugates for Near-Infrared Fluorescence Imaging. Mol Imaging. 2002 Oct;1(4):354-64.
- Lenkinski RE, Ahmed M, Zaheer A, Frangioni JV, Goldberg SN. Near-infrared fluorescence imaging of microcalcification in an animal model of breast cancer. AcadRadiol. 2003 Oct;10(10):1159-64.
- 5. Alves FC, Donato P, Sherry AD, **Zaheer A**, Zhang S, Lubag AJ, Merritt ME, Lenkinski RE, Frangioni JV, Neves M, Prata MI, Santos AC, de Lima JJ, Geraldes CF. Silencing of phosphonate-gadolinium magnetic resonance imaging contrast by hydroxyapatite binding. Invest Radiol. 2003 Dec;38(12):750-60.
- 6. Humblet V, Lapidus R, Williams LR, Tsukamoto T, Rojas C, Majer P, Hin B, Ohnishi S, De Grand AM, **Zaheer A**, Renze JT, Nakayama A, Slusher BS, Frangioni JV. High-affinity near-infrared fluorescent small-molecule contrast agents for in vivo imaging of prostate-specific membrane antigen. Mol Imaging. 2005 Oct;4(4):448-62.
- ZaheerA, MurshedM, De GrandAM, MorganTG, KarsentyG, and Frangioni JV. Optical Imaging of Hydroxyapatite in the Calcified Vasculature of Transgenic Animals. ArteriosclerThrombVasc Biol. 2006 May;26(5):1132-6.
- 8. Mollura DJ, Azene EM, Starikovsky A, Thelwell A, Iosifescu S, Kimble C, Polin A, Garra BS, DeStigter KK, Short B, Johnson B, Welch C, Walker I, White DM, JavadiMS, Lungren MP, **Zaheer A**, Goldberg BB, Lewin JS. White Paper Report of the RAD-AID Conference on International Radiology for Developing Countries: identifying challenges, opportunities, and strategies for imaging services in the developing world. J Am Coll Radiol. 2010 Jul;7(7):495-500.
- 9. Johnson, PT, **Zaheer, A**, Anders, R, Fishman, EK. Dual-Phase Computed Tomographic Angiography of Focal Nodular Hyperplasia: Defining Predictable Postcontrast Attenuation Levels Relative to Aorta and Inferior Vena. J Comput Assist Tomogr. 2010 Sep-Oct; 34(5):720-4.
- 10. Ahmed S, Johnson PT, Horton KM, Lai H, **Zaheer A**, Tsai S, Fishman EK. Prevalence of unsuspected thyroid nodules on contrast enhanced 16- and 64-MDCT of the chest. World J Radiol. 2012 Jul 28;4(7):311-7.
- 11. <u>Chaudhry MA</u>, Wahl R, Kadhim LA, **Zaheer A**. Contrast enhanced Computed Tomography Characterization of Fluorodeoxygluocose-Avid Regional and Non-Regional Lymph Nodes in Patients with Suspicion of Metastatic Bladder Cancer. J Clin Imaging Sci. 2013 Dec 31;3:66.
- Akshintala VS, Saxena P, Zaheer A, Rana U, Hutfless SM, Lennon AM, Canto MI, Kalloo AN, Khashab MA, Singh VK. A Comparative Evaluation of Outcomes of Endoscopic versus Percutaneous Drainage for Symptomatic Pancreatic Pseudocysts. Gastrointest Endosc. 2013 Dec 4. pii: S0016-5107(13)02465-6.
- 13. **Zaheer A**, Singh VK, <u>Akshintala VS</u>, Kawamoto S, Tsai SD, Khan VN, Gage KL, Fishman EK. Differentiating Autoimmune Pancreatitis from Pancreatic Adenocarcinoma using Dual-phase Computed Tomography: An Inter-observer Study. J Comput Assist Tomogr. 2014 Jan-Feb;38(1):146-52.
- 14. Woods RW, Akshintala VS, Sinh VK, Almulla A, Khan, VN, Cader R, Fishman EK, **Zaheer A**. CT Severity of Post-ERCP Pancreatitis: Results from a Single Tertiary Medical Center" Abdom. Imaging. 2014 Apr 27.

- 15. Lennon AM, Manos LL, Hruban RH, Ali S, Fishman EK, Kamel IR, Raman S, Zaheer A, Hutfless S, Salamone A, Kiswani V, Ahuja N, Makary MA, Weiss MJ, Hirose K, Goggins M, Wolfgang CL. The Role of a Multidisciplinary Clinic in Patients with Pancreatic Cysts- A Single Center Cohort Study. Ann Surg Oncol. 2014 Oct;21(11):3668-74. (Role: Imaging expert and analyst)
- 16. <u>Saxena P</u>, Singh VK, Messallam A, Kamal A, **Zaheer A**, Kumbhair V, Lennon AM, Kalloo A, Khashab MA. Resolution of Walled Off Pancreatic Necrosis (WOPN) by EUS-guided Drainage using a Fully Covered throughthe-scope Self Expandable Metallic Stent in a Single Procedure. Gastrointest Endosc. 2014 Aug;80(2):319-24.
- 17. **Zaheer A,**Haider M, Kawamoto S, Hruban RH, Fishman EK. Dual-Phase CT Findings of Groove Pancreatitis. Eur J Radiol. 2014 Aug;83(8):1337-43.
- 18. Lennon AM, Victor D, **Zaheer A**, Ostovaneh MR, Jeh J, Law JK, Rezaee N, Dal Molin M, Ahn YJ, Wu W, Khashab MA, Girotra M, Ahuja N, Makary MA, Weiss MJ, Hirose K, Goggins M, Hruban RH, Cameron A, Wolfgang CL, Singh VK, Gurakar A. Liver transplant patients have a similar risk of progression as sporadic patients with branch duct intraductal papillary mucinous neoplasms. Liver Transpl. 2014 Aug 25. (Role: Imaging expert and analyst)
- 19. <u>Kamal A, Singh VK</u>, Akshintala VS, Kawamoto S, Tsai S, <u>Haider M</u>, Fishman EK, Kamel IR, **Zaheer A**. CT and MRI Assessment of Symptomatic Organized Pancreatic Fluid Collections: An Interreader Variability Study using the Revised Atlanta Classification 2012. Abdom Imaging. 2014 Nov 26.
- 20. <u>Coquia SF</u>, Kawamoto S, **Zaheer A**, Bleich KB, Blackfor AL, Fishman EK. Intrapancreatic Accessory Spleen: Possibilities of CT in Differentiation from Non Functioning Pancreatic Neuroendocrine Tumor. J Comput Assist Tomogr. 2014 Nov-Dec;38(6):874-8.
- 21. Sinha A, Singh VK, Cruise M, Afghani E, Matsukuma K, Ali S, Andersen D, Raman SP, Fishman EK, **Zaheer A.**Abdominal CT Predictors of Fibrosis in Patients with Chronic Pancreatitis undergoing Surgery. Eur RadiolEur Radiol. 2014 Dec 4.
- 22. Oduyebo I, Law JK, **Zaheer A**, Weiss MJ, Wolfgang C, Lennon AM. Choledochal or pancreatic cyst? Role of endoscopic ultrasound as an adjunct for diagnosis: a case series. Surg Endosc. 2014 Dec 10.
- Marcus C, Paidpally V, Antoniou A, Zaheer A, Wahl RL, Subramaniam RM. 18F-FDG PET/CT and Lung Cancer: Value of Fourth and Subsequent Posttherapy Follow-up Scans for Patient Management. J Nucl Med. 2015 Feb;56(2):204-8.
- 24. <u>Sinha A</u>, Cader R, Akshintala VS, Hutfless SM, **Zaheer A**, Khan VN, Khashab MA, Lennon AM, Kalloo AN, Singh VK. Systemic inflammatory response syndrome between 24 and 48 h after ERCP predicts prolonged length of stay in patients with post-ERCP pancreatitis: A retrospective study. Pancreatology. 2015 Feb 17.
- 25. <u>Sinha A, Cader R, Akshintala VS, Hutfless SM, **Zaheer A**, Khan VN, Khashab MA, Lennon AM, Kalloo AN, Singh VK. Systemic inflammatory response syndrome between 24-28 hours after ERCP predicts severe post-ERCP pancreatitis: A retrospective study. Pancreatology (2015 Mar-Apr;15(2):105-10).</u>
- 26. Le DT, Uram JN, Wang H, Bartlett BR, Kemberling H, Eyring AD, Skora AD, Luber BS, Azad NS, Laheru D, Biedrzycki B, Donehower RC, Zaheer A, Fisher GA, Crocenzi TS, Lee JJ, Duffy SM, Goldberg RM, de la Chapelle A, Koshiji M, Bhaijee F, Huebner T, Hruban RH, Wood LD, Cuka N, Pardoll DM, Papadopoulos N, Kinzler KW, Zhou S, Cornish TC, Taube JM, Anders RA, Eshleman JR, Vogelstein B, Diaz LA Jr. PD-1

- Blockade in Tumors with Mismatch-Repair Deficiency.N Engl J Med. 2015 Jun 25;372(26):2509-20. (Role: Sole imaging expert and analyst)
- 27. Pandharipande PV, Reisner AT, Binder WD, **Zaheer A**, Gunn ML, Linnau KF, Miller CM, Avery LL, Herring MS, Tramontano AC, Dowling EC, Abujudeh HH, Eisenberg JD, Halpern EF, Donelan K, Gazelle GS. CT in the Emergency Department: A Real-Time Study of Changes in Physician Decision Making.Radiology. 2015 Sep 24:150473. (Role: Data acquisition and site principal investigator)
- 28. <u>Sinha A, Vázquez NQ, Faghih M, Afghani E, **Zaheer A**, Khashab MA, Lennon AM, de-Madaria E, Singh VK. Early Predictors of Fluid Sequestration in Acute Pancreatitis: A Validation Study.Pancreas. 2015 Sep 24.</u>
- 29. <u>Sinha A, Patel YA, Cruise M, Matsukuma K, **Zaheer A**, Afghani E, Yadav D, Makary MA, Hirose K, Andersen DK, Singh VK. Predictors of Post-Operative Pain Relief in Patients with Chronic Pancreatitis Undergoing the Frey or Whipple Procedure.J Gastrointest Surg. 2016 Apr;20(4):734-40.</u>
- 30. Masica DL, Dal Molin M, Wolfgang CL, Tomita T, Ostovaneh MR, Blackford A, Moran RA, Law JK, Barkley T, Goggins M, Irene Canto M, Pittman M, Eshleman JR, Ali SZ, Fishman EK, Kamel IR, Raman SP, **Zaheer A**, Ahuja N, Makary MA, Weiss MJ, Hirose K, Cameron JL, Rezaee N, He J, Joon Ahn Y, Wu W, Wang Y, Springer S, Diaz LL Jr, Papadopoulos N, Hruban RH, Kinzler KW, Vogelstein B, Karchin R, Lennon AM. A novel approach for selecting combination clinical markers of pathology applied to a large retrospective cohort of surgically resected pancreatic cysts. J Am Med Inform Assoc. 2016 Jun 21. (Role: Imaging expert and analyst)
- 31. Pandharipande PV, Alabre CI, Coy DL, **Zaheer A**, Miller CM, Herring MS, Tramontano AC, Dowling EC, Eisenberg JD, Ashar BH, Halpern EF, Donelan K, Gazelle GS. Changes in Physician Decision Making after CT: A Prospective Multicenter Study in Primary Care Settings.Radiology. 2016 Jul 29:152887. (Role: Data acquisition and site principal investigator)
- 32. Gemenetzis G, Bagante F, Griffin JF, Rezaee N, Javed AA, Manos LL, Lennon AM, Wood LD, Hruban RH, Zheng L, **Zaheer A**, Fishman EK, Ahuja N, Cameron JL, Weiss MJ, He J, Wolfgang CL. Neutrophil-to-lymphocyte Ratio is a Predictive Marker for Invasive Malignancy in Intraductal Papillary Mucinous Neoplasms of the Pancreas. Ann Surg. 2016 Sep 14. (Role: Imaging expert and analyst)
- 33. Moran RA, Jalaly NY, Kamal A, Rao S, Klapheke R, James TW, Kambhampati S, Makary MA, Hirose K, Kumbhari V, Stein EM, Khashab MA, Lennon AM, Kalloo AN, **Zaheer A**, Hernaez R, Singh VK. Ileus is a predictor of local infection in patients with acute necrotizing pancreatitis. Pancreatology. 2016 Nov Dec;16(6):966-972. (Role: Imaging expert and analyst)
- 34. Eisenberg JD, Reisner AT, Binder WD, **Zaheer A**, Gunn ML, Linnau KF, Miller CM, Tramontano AC, Herring MS, Dowling EC, Halpern EF, Donelan K, Gazelle GS, Pandharipande PV. Role of CT in the Diagnosis of Nonspecific Abdominal Pain: A Multicenter Analysis. AJR Am J Roentgenol. 2017 Jan 11:1-7. doi: 10.2214/AJR.16.16669. (Role: Data acquisition and site principal investigator)
- 35. Wood LD, Noë M, Hackeng W, Brosens LA, Bhaijee F, Debeljak M, Yu J, Suenaga M, Singhi AD, **Zaheer A**, Boyce A, Robinson C, Eshleman JR, Goggins MG, Hruban RH, Collins MT, Lennon AM, Montgomery EA. Patients with McCune-Albright syndrome have a broad spectrum of abnormalities in the gastrointestinal tract and pancreas. Virchows Arch. 2017 Apr;470(4):391-400.

- 36. Le DT, Durham JN, Smith KN, Wang H, Bartlett BR, Aulakh LK, Lu S, Kemberling H, Wilt C, Luber BS, Wong F, Azad NS, Rucki AA, Laheru D, Donehower R, **Zaheer A**, Fisher GA, Crocenzi TS, Lee JJ, Greten TF, Duffy AG, Ciombor KK, Eyring AD, Lam BH, Joe A, Kang SP, Holdhoff M, Danilova L, Cope L, Meyer C, Zhou S, Goldberg RM, Armstrong DK, Bever KM, Fader AN, Taube J, Housseau F, Spetzler D, Xiao N, Pardoll DM, Papadopoulos N, Kinzler KW, Eshleman JR, Vogelstein B, Anders RA, Diaz LA Jr. Mismatch-repair deficiency predicts response of solid tumors to PD-1 blockade.Science. 2017 Jun 8. (Role: Sole imaging expert and analyst)
- 37. Moran RA, Klapheke R, John GK, Devlin S, Warren D, Desai N, Sun Z, Walsh C, Kalyani RR, Hall E, Stein EM, Kalloo AN, **Zaheer A**, Hirose K, Makary MA, Singh VK. Prevalence and predictors of pain and opioid analgesic use following total pancreatectomy with islet autotransplantation for pancreatitis. Pancreatology. 2017 Jul 12. (Role: Imaging expert and analyst)
- 38. <u>Kamal A, Faghih M, Moran RA, Afghani E, Sinha A,</u> Parsa N, Makary MA, **Zaheer A**, Fishman EK, Khashab MA, Kalloo AN, Singh VK. Persistent SIRS and acute fluid collections are associated with increased CT scanning in acute interstitial pancreatitis. Scand J Gastroenterol. 2018 Jan;53(1):88-93. (Role: Imaging expert and analyst)
- 39. Kambadakone AR, **Zaheer A**, Le O, Bhosale P, Meier J, Guimaraes AR, Shah Z, Hough DM, Mannelli L, Soloff E, Friedman A, Tamm E. Multi-institutional survey on imaging practice patterns in pancreatic ductal adenocarcinoma. AbdomRadiol (NY). 2017 Dec 26.
- 40. <u>Boortalary T, Jalaly NY, Moran RA</u>, Makary MA, Walsh C, Lennon AM, **Zaheer A**, Singh VK. Metastatic Pancreatic Adenocarcinoma in a Patient With Chronic Calcific Pancreatitis and a Heterozygous SPINK1 c.194+2T>C Mutation.Pancreas. 2018 Apr;47(4):e24-e25.
- 41. Jacobs MA, Macura KJ, **Zaheer A**, Antonarakis ES, Stearns V, Wolff AC, Feiweier T, Kamel IR, Wahl RL, Pan L. Multiparametric Whole-body MRI with Diffusion-weighted Imaging and ADC Mapping for the Identification of Visceral and Osseous Metastases From Solid Tumors. AcadRadiol. 2018 Apr 4.
- 42. <u>Faghih M, Sinha A, Moran RA, Afghani E, Patel YA, Storm AC, Kamal A, Akshintala VS, **Zaheer A**, Kalloo AN, Kumbhari V, Khashab MA, Singh VK. Length of stay overestimates severity of post-ERCP pancreatitis: Is it time to revise the consensus definition? Endosc Int Open. 2018 Jul;6(7):E838-E843. doi: 10.1055/a-0624-2491. (Role: Imaging expert and analyst)</u>
- 43. Robinson C, Estrada A, **Zaheer A**, Singh VK, Wolfgang CL, Goggins MG, Hruban RH, Wood LD, Noë M, Montgomery EA, Guthrie LC, Lennon AM, Boyce AM, Collins MT. Clinical and Radiographic Gastrointestinal Abnormalities in McCune-Albright Syndrome. Clin Endocrinol Metab. 2018 Aug 15. (Role: Imaging expert and analyst)
- 44. Lee LK, Reisner AT, Binder WD, **Zaheer A**, Gunn ML, Linnau KF, Miller CM, Herring MS, Tramontano AC, Kambadakone A, Catalano OA, Harisinghani M, Halpern EF, Donelan K, Gazelle GS, Pandharipande PV. Repeat CT Performed Within One Month of CT Conducted in the Emergency Department for Abdominal Pain: A Secondary Analysis of Data From a Prospective Multicenter Study. AJR Am J Roentgenol. 2018 Dec 4:1-4. (Role: Data acquisition and site principal investigator)
- 45. <u>Hafezi-Nejad N</u>, Singh, VK, <u>Fagih M</u>, Kamel IR, **Zaheer A**. Jejunal response to secretin is independent of the pancreatic response in secretin-enhanced magnetic resonance cholangiopancreatography. Eur J Radiol2019 Mar;112:7-13.

- 46. Lee MH, **Zaheer A**, Voltaggio L, Johnson PT, Fishman EK. Clinical time course and CT detection of metastatic disease to the small bowel. AbdomRadiol (NY). 2019 Feb 28
- 47. <u>Haj-Mirzaian A</u>, Sethi N, de Frencesca B, Sahni, S, **Zaheer A**. Web-based Radiology Subspecialty Training Program: Pilot Feasibility and Effectiveness Analysis on Ethiopian Radiologists. AcadRadiol2019 May 4.
- 48. Peterson CM, McNamara MM, Kamel IR, Al-Refaie WB, Arif-Tiwari H, Cash BD, Chernyak V, Goldstein A, Grajo JR, Hindman NM, Horowitz JM, Noto RB, Porter KK, Srivastava PK, **Zaheer A**, Carucci LR. Expert Panel on Gastrointestinal Imaging: ACR Appropriateness Criteria® Right Upper Quadrant Pain.J Am Coll Radiol. 2019 May;16(5S):S235-S243.
- 49. Hindman NM, Arif-Tiwari H, Kamel IR, Al-Refaie WB, Bartel TB, Cash BD, Chernyak V, Goldstein A, Grajo JR, Horowitz JM, Kamaya A, McNamara MM, Porter KK, Srivastava PK, **Zaheer A**, Carucci LR. Expert Panel on Gastrointestinal Imaging: ACR Appropriateness Criteria® Jaundice. J Am Coll Radiol. 2019 May;16(5S):S126-S140.
- 50. Canto MI, Kerdsirichairat T, Yeo CJ, Hruban RH, Shin EJ, Almario JA, Blackford A, Ford M, Klein AP, Javed AA, Lennon AM, **Zaheer A**, Kamel IR, Fishman EK, Burkhart R, He J, Makary M, Weiss MJ, Schulick RD, Goggins MG, Wolfgang CL. Surgical Outcomes After Pancreatic Resection of Screening-Detected Lesions in Individuals at High Risk for Developing Pancreatic Cancer. J Gastrointest Surg. 2019 Jun 13.
- 51. <u>Faghih M</u>, Boortalary T, Jalaly NY, Brewer Gutierrez OI, Chen YI, Azadi JR, Parsa N, Noë M, Fan C, Kumbhari V, Kalloo AN, **Zaheer A**, Khashab MA, Singh VK. Low Serum Trypsin Levels Predict Deep Pancreatic Cannulation Failure During Endoscopic Retrograde Cholangiopancreatography in Patients With Symptomatic Obstructive Chronic Pancreatitis.Pancreas. 2019 Jul;48(6):844-849.
- 52. Jia AY, Narang A, Safar B, **Zaheer A**, Murphy A, Azad NS, Gearhart S, Fang S, Efron J, Warczynski T, Hacker-Prietz A, Meyer J. Sequential short-course radiation therapy and chemotherapy in the neoadjuvant treatment of rectal adenocarcinoma. Radiat Oncol. 2019 Aug 19;14(1):147.
- 53. Porter KK, Zaheer A, Kamel IR, Horowitz JM, Arif-Tiwari H, Bartel TB, Bashir MR, Camacho MA, Cash BD, Chernyak V, Goldstein A, Grajo JR, Gupta S, Hindman NM, Kamaya A, McNamara MM, Carucci LR. ACR Appropriateness Criteria® Acute Pancreatitis. J Am Coll Radiol. 2019 Nov;16(11S):S316-S330. The second author in this series effectively serves as a senior/final author to support the more junior first author)
- 54. <u>Mashayekhi R</u>, Parekh VS, Faghih M, Singh VK, Jacobs MA, **Zaheer A**. Radiomic Features of the Pancreas on CT Imaging Accurately Differentiate Functional Abdominal Pain, Recurrent Acute Pancreatitis, and Chronic Pancreatitis. Eur J Radiol. 2014 (Eur J Radiol2019 Dec 11).
- 55. Fábrega-Foster K, Kamel IR, Horowitz JM, Arif-Tiwari H, Bashir MR, Chernyak V, Goldstein A, Grajo JR, Hindman NM, Kamaya A, McNamara MM, Porter KK, Scheiman JM, Solnes LB, Srivastava PK, **Zaheer A**, Carucci LR. Expert Panel on Gastrointestinal Imaging. ACR Appropriateness Criteria® Pancreatic Cyst. J Am Coll Radiol. 2020 May;17(5S):S198-S206.
- 56. Bashir MR, Horowitz JM, Kamel IR, Arif-Tiwari H, Asrani SK, Chernyak V, Goldstein A, Grajo JR, Hindman NM, Kamaya A, McNamara MM, Porter KK, Solnes LB, Srivastava PK, Zaheer A, Carucci LR. Expert Panel on Gastrointestinal Imaging. ACR Appropriateness Criteria® Chronic Liver Disease. J Am Coll Radiol. 2020 May;17(5S):S70-S80.

- 57. Faghih M, Noë M, Mannan R, Kamel IR, **Zaheer A**, Kalyani RR, Hall E, Afghani E, Warren D, Desai N, Sun Z, Walsh C, Makary MA, Goggins M, Hruban RH, He J, Singh VK. Pancreatic volume does not correlate with histologic fibrosis in adult patients with recurrent acute and chronic pancreatitis. Pancreatology. 2020 Sep;20(6):1078-1084.
- 58. Amini N, Rezaee N, Habib JR, Blair A, Beckman RM, Manos L, Cameron JL, Hruban RH, Weiss MJ, Fishman EK, **Zaheer A**, Lafaro KJ, Burkhart RA, O'Broin Lennon AM, Burns WR, He J, Wolfgang CL. Minimal main pancreatic duct dilatation in small branch duct intraductal papillary mucinous neoplasms associated with high-grade dysplasia or invasive carcinoma. HPB (Oxford). 2020 Sep 7:S1365-182X(20)31116-3.
- 59. Ding D, Javed AA, Cunningham D, Teinor J, Wright M, Javed ZN, Wilt C, Parish L, Hodgin M, Ryan A, Judkins C, McIntyre K, Klein R, Azad N, Lee V, Donehower R, De Jesus-Acosta A, Murphy A, Le DT, Shin EJ, Lennon AM, Khashab M, Singh V, Klein AP, Roberts NJ, Hacker-Prietz A, Manos L, Walsh C, Groshek L, Brown C, Yuan C, Blair AB, Groot V, Gemenetzis G, Yu J, Weiss MJ, Burkhart RA, Burns WR, He J, Cameron JL, Narang A, **Zaheer A**, Fishman EK, Thompson ED, Anders R, Hruban RH, Jaffee E, Wolfgang CL, Zheng L, Laheru DA. Challenges of the current precision medicine approach for pancreatic cancer: A single institution experience between 2013 and 2017. Cancer Lett. 2021 Jan 28;497:221-228.
- 60. Chernyak V, Horowitz JM, Kamel IR, Arif-Tiwari H, Bashir MR, Cash BD, Farrell J, Goldstein A, Grajo JR, Gupta S, Hindman NM, Kamaya A, McNamara MM, Porter KK, Solnes LB, Srivastava PK, **Zaheer A**, Carucci LR. Expert Panel on Gastrointestinal Imaging, ACR Appropriateness Criteria® Liver Lesion-Initial Characterization. J Am Coll Radiol. 2020 Nov;17(11S):S429-S446.
- 61. Wadhwa V, Vilanilam GK, Chhabra A, Bhargava P, Rehani B, **Zaheer A**, Jambhekar K, Ram R. A 15-Year Analysis of International Medical Graduates Matching Into Diagnostic Radiology Residency Programs in the United States. AcadRadiol. 2020 Nov 3:S1076-6332(20)30561-4.
- 62. Hecht EM, Khatri G, Morgan D, Kang S, Bhosale PR, Francis IR, Gandhi NS, Hough DM, Huang C, Luk L, Megibow A, Ream JM, Sahani D, Yaghmai V, **Zaheer A**, Kaza R. Intraductal papillary mucinous neoplasm (IPMN) of the pancreas: recommendations for Standardized Imaging and Reporting from the Society of Abdominal Radiology IPMN disease focused panel. AbdomRadiol (NY). 2020 Nov 13.
- 63. Amini N, Habib JR, Blair A, Rezaee N, Kinny-Köster B, Cameron JL, Hruban RH, Weiss MJ, Fishman EK, Lafaro KJ, **Zaheer A**, Manos L, Burns WR, Burkhart R, He J, Yu J, Wolfgang CL. Invasive and Non-Invasive Progression after Resection of Non-Invasive Intraductal Papillary Mucinous Neoplasms. Ann Surg. 2020 Nov 12.
- 64. Ashok A, Faghih M, Azadi JR, Parsa N, Fan C, Bhullar F, Gonzalez FG, Jalaly NY, Boortalary T, Khashab MA, Kamal A, Akshintala VS, **Zaheer A**, Afghani E, Singh VK. Morphologic Severity of Acute Pancreatitis on Imaging Is Independently Associated with Opioid Dose Requirements in Hospitalized Patients. Dig Dis Sci. 2021 Apr 9.
- 65. Luk L, Hecht EM, Kang S, Bhosale PR, Francis IR, Gandhi N, Hough DM, Khatri G, Megibow A, Morgan DE, Ream JM, Sahani D, Shin LK, Yaghmai V, Zafar H, **Zaheer A**, Kaza R. Society of Abdominal Radiology Disease Focused Panel Survey on Clinical Utilization of Incidental Pancreatic

- Cyst Management Recommendations and Template Reporting. J Am Coll Radiol. 2021 May 15:S1546-1440(21)00373-2.
- 66. Gurakar M, Jalaly NY, Faghih M, Boortalary T, Azadi JR, Khashab MA, Fan C, Kalloo AN, **Zaheer A**, Singh VK, Afghani E. Impact of genetic testing and smoking on the distribution of risk factors in patients with recurrent acute and chronic pancreatitis. Scand J Gastroenterol. 2021 Oct 18:1-8.
- 67. Vij A, **Zaheer A**, Kamel IR, Porter KK, Arif-Tiwari H, Bashir MR, Fung A, Goldstein A, Herr KD, Kamaya A, Kobi M, Landler MP, Russo GK, Thakrar KH, Turturro MA, Wahab SA, Wardrop RM 3rd, Wright CL, Yang X, Carucci LR. Expert Panel on Gastrointestinal Imaging. ACR Appropriateness Criteria® Epigastric Pain. J Am Coll Radiol. 2021 Nov;18(11S):S330-S339.
- 68. Malik RF, Hasanain A, Lafaro KJ, He J, Narang AK, Fishman EK, **Zaheer A.** Structured CT reporting of pancreatic ductal adenocarcinoma: impact on completeness of information and interdisciplinary communication for surgical planning. AbdomRadiol (NY). 2021 Nov 20.
- 69. Hill C, Fu W, Hu C, Sehgal S, Reddy AV, He J, Herman JM, Meyer JJ, **Zaheer A**, Narang A. Location, Location, Location: What Should be Targeted beyond Gross Disease for Localized Pancreatic Ductal Adenocarcinoma (PDAC)? Proposal of a Standardized Clinical Tumor Volume (CTV) for PDAC of the Head: the "Triangle Volume". PractRadiat Oncol. 2022 Feb 7;S1879-8500(22)00044-3.
- 70. Parian AM, Li L, Duraes LC, Cheng J, Hu H, Yao Z, Donet J, Salem G, Iuga A, Salimian K, Izzi J, **Zaheer A**, Mao HQ, Gearhart S, Selaru FM. A Novel Patient-like Swine Model of Perianal Crohn's Disease. Dis Colon Rectum. 2022 Apr 25.
- 71. Reddy AV, Safar B, Jia AY, Azad NS, Christenson ES, Atallah C, Efron JE, Gearhart SL, **Zaheer A**, Narang AK, Meyer J. Nonoperative Management Following Complete Response in Rectal Cancer After Short-course Radiation Therapy and Consolidation Chemotherapy: Clinical Outcomes and Quality of Life Measures. Am J Clin Oncol. 2022 May 25.
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- Malayeri AA, Zaheer A, Fishman EK, Macura KJ. Adrenal Masses: Contemporary Imaging Characterization. J Comput Assist Tomogr. 2013 Jul-Aug;37(4):528-42.
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- 22. <u>Hafezi-Nejad N</u>, Fishman EK, **Zaheer A.**Imaging of post-operative pancreas and complications after pancreatic adenocarcinoma resection. AbdomRadiol (NY). 2017 Nov 1.
- 23. Soloff EV, Zaheer A, Meier J, Zins M, Tamm EP. Staging of pancreatic cancer: resectable, borderline resectable, and unresectable disease. AbdomRadiol (NY). 2017 Dec 2.
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- 27. <u>Haj-Mirzaian A</u>, Kawamoto S, **Zaheer A**, Hruban RH, Fishman EK, Chu LC. Pitfalls in the MDCT of pancreatic cancer: strategies for minimizing errors. AbdomRadiol (NY). 2020 Jan 2.
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Case Reports (Peer-Reviewed)

- 1. **Zaheer A.**Halappa VG, Akshintala VS, Singh VK, Kamel IR. Renal Lesions in Autoimmune Pancreatitis: Diffusion Weighted Magnetic Resonance Imaging for Assessing Response to Corticosteroid Therapy. JOP. J Pancreas 2013 Sep 10; 14(5):506-509.
- 2. Bovbel A, **Zaheer A**, Maleki, Z. Cytomorphologic Findings of Intraosseous Notochord Rest on Touch Preparation: A Case Report. Diagn Cytopathol. 2015 Mar;43(3):243-6.
- 3. <u>Somwaru AS</u>, Alex D, **Zaheer A**. Prostate cancer arising in ectopic prostatic tissue within the left seminal vesicle: a rare case diagnosed with multi-parametric magnetic resonance imaging and magnetic resonance imagingtransrectal ultrasound fusion biopsy.BMC Med Imaging. 2016 Feb 24;16:16.

Books

- 1. Pancreatic Imaging: A pattern-based approach to radiologic diagnosis with Pathologic correlation. Editors: **Zaheer A**, Fishman EK, Pittman ME, Hruban RH. Springer 2017.
- 2. Gastrointestinal Imaging. 4th edition. Editors: Zaheer A, Raman S. Elsevier 2021
- 3. Expert DDx: Abdomen and Pelvis. 3rd edition. Editors: **Zaheer A**, Raman S, Foster B, Fananapazir G. Elseview 2022 (In press)

Book Sections

1. **Zaheer A.** Section: Mesenteric Vasculature. Pearls and Pitfalls in Cardiovascular Imaging. Editor Zimmerman, SL. Cambridge University Press. – 2014.

Book chapters and Monographs

- 1. Hoshi H, **Zaheer A**, El Abiad RG, Maxwell JE, <u>Chu LC</u>, Gerke H, Chan CH. Management of pancreatic intraductal papillary mucinous neoplasm.CurrProbl Surg. 2018 Apr;55(4):126-152. doi: 10.1067/j.cpsurg.2018.03.001. Epub 2018 Mar 14.
- 2. <u>Ameli S, Shaghaghi M</u>, Kamel IR and **Zaheer A.** Hepatobiliary and pancreatic malignancies. Therapy Response Imaging in Oncology. Editor Hatabu. Springer 2020 (ISBN 978-3-030-31170-4)
- 3. **Zaheer A.**Overview of Current Strategies for Diagnostic Imaging of Biliary Tract and Gallbladder Tumors. Biliary Tract and Gallbladder Cancer: A Multidisciplinary Approach. Springer 2020 3rd edition (In Press)
- 4. Bezuidenhout, A and **Zaheer A.** Imaging of pancreatitis. Textbook of radiology and imaging. Sutton (ed). Lippincott Williams and Wilkins; 8th edition (In Press)
- 5. Gawande, R and **Zaheer A**. MRI evaluation of pelvic pain. Magnetic Resonance Imaging of the Pelvis: A Practical Approach. Elsevier, 2022 (In press)

Letters, Correspondence

- 1. Akshintala VS, **Zaheer A,** Singh VK. Response to a letter on manuscript "A comparative evaluation of outcomes of endoscopic versus percutaneous drainage for symptomatic pancreatic pseudocysts". <u>GastrointestEndosc.</u> 2014 Jun;79(6):1028-9.
- 2. <u>Kamal A</u>, Singh VK, **Zaheer A**. Letter to the editor "Severe Acute Pancreatitis: Is Organ Failure Enough?". Radiology. 2015 Oct;277(1):304-6.
- 3. <u>Mahya Faghih</u>, Vikesh K. Singh, <u>Mashayekhi R</u>, Parekh VS, Michael A. Jacobs, **Atif Zaheer**. Letter: Design flaws in study of differentiating functional abdominal pain, recurrent acute pancreatitis and chronic pancreatitis via radiomics features. Authors' reply. European Journal of Radiology, Available online 19 February 2020, Pages 108871
- 4. Zaheer A. Introduction to the special section on pancreatitis. AbdomRadiol (NY). 2020 May;45(5):1221.
- 5. Zaheer A. Tears of the Pancreas: A Cry for Help. Radiographics. 2022 Jan-Feb;42(1):E18-E20.

Web based learning

- 1. Web administrator for the Facebook page for Johns Hopkins e-radiology. "Interesting cases" and "e-radiology minute" are posted from our clinical practice with interactive feedback on viewers responses. (https://www.facebook.com/pages/Johns-Hopkins-e-Radiology-Learning/197661090275170).
- 2. Web administrator for the Facebook group "Radiology: Interesting cases" where cases are shared and discussed from all over the world. (https://www.facebook.com/groups/radinterestingcases/).
- 3. Radiographics podcast on Tumor-Vessel Relationships in Pancreatic Ductal Adenocarcinoma at Multidetector CT: Different Classification Systems and Their Influence on Treatment Planning. (http://pubs.rsna.org/page/radiographics/views)

FUNDING

EXTRAMURAL Funding

Research Extramural Funding

2012-2014 Value of CT in patient care: A multicenter research project for the assessment of usefulness of CT in the emergency department and primary care setting.

NA- 00073232

MGH Institute for Technology Assessment

Award: \$221, 851

Principal Investigator at JHH: Atif Zaheer, MD. Percent Effort: 10%

Notes: This multicenter research project was initiated at Massachusetts General Hospital by Dr. Pari Pandharipande and my role was to conduct the Hopkins part of the trial by supervising 2 research assistants in collection of prospective data from the emergency department and primary care faculty.

2013-Present Efficacy of Secretin Assisted Dynamic MRCP in the diagnosis and follow up of Autoimmune Pancreatitis.

NA_00068830 ChiRhoClin Inc.

\$52,624

Principal Investigator: Atif Zaheer, MD. Percent Effort: 1%.

Role: Recruiting patients with suspected autoimmune pancreatitis from the pancreatitis clinic and test the role of secretin enhanced MRI for diagnosis of autoimmune pancreatitis.

role of secretification with for diagnosis of autominute pancreatus

2014-Present Minimally Invasive Surgery vs. Endoscopy Randomized (MISER) Trial for symptomatic Walled-Off Pancreatic Necrosis. In collaboration with Florida Hospital, Orlando and University of

Alabama at Birmingham, Birmingham.

Primary Investigator: Mouen Khashab, MD. Role: Study team member responsible for imaging analysis of symptomatic Walled-off pancreatic

necrosis.

2014-Present Interobserver variability of the revised Atlanta classification. In collaboration with Unidad de PatologíaPancreática, Hospital General Universitario de Alicante, Spain.

Primary Investigator: Enrique de Madaria, MD

Role: Study team member responsible for imaging analysis of pseudocysts and Walled-off pancreatic

necrosis

2019-Present Helmsley award: "A Multidisciplinary Bioengineering Approach to Fistula-in-Ano in Crohn's

Patients"

G-2019PG-CD025

Primary Investigator: Alyssa Parian, Florin M. Selaru, Hai-Quan Mao

Role: Serving as a co-investigator for evaluation of pre- and post treatment MRIs of pigs for fistula in ano.

Award: \$12,627 (salary) plus 34% fringe (5% salary support)

2020-2025 NIH grant: Clinical, Radiologic and Biochemical Factors Related to Diabetes Development after

Acute Pancreatitis U01DK127400

Primary investigator: Vikesh Singh and Zhaoli Sun

Award: \$1,432,815 (Total for JHH alone). Salary support 5%

Role: Serving as a co-investigator for the role of imaging in development of Diabetes after acute pancreatitis

2021-2024 Imaging Morphology of Pancreas in Diabetic Patients Following Acute Pancreatitis (IMMINENT).

National Institute of Diabetes Digestion

141020

Primary investigator: Atif Zaheer Award: \$339,879, Salary support 3% Role: Serving as an investigator to study novel MRI techniques to investigate the development of diabetes in patients with acute pancreatitis.

Educational Extramural Funding

2016-2017 Subspecialty radiology training at St. Paul Hospital, Ethiopia

Grant #122452 & 122457

\$157,863.61

Principal Investigator: Atif Zaheer, MD. Percent Effort: 20%.

Role: Developing a distant learning program for subspecialty training in 4 radiology disciplines including abdominal, chest, Neuro and musculoskeletal radiology with on-line lectures, didactic training and testing metrics.

INTRAMURAL Funding Research Intramural Funding

2011-Present Non-invasive method for evaluation of portal hypertension in hepatic cirrhosis using novel

functional MRI techniques.

NA-00046032

Gatewood Foundation

\$10,000

Principal Investigator: Atif Zaheer, MD. One time grant.

Role: Recruiting patients with portal hypertension and healthy volunteers to test novel MRI techniques in developing non-invasive techniques to measure portal pressures.

Educational Intramural Funding

2010 First RAD-AID Conference

William M.G. Gatewood Research Award

\$10,000

Co-Primary Investigator: Atif Zaheer, MD. One time grant.

Role: To successfully conduct a radiology conference bringing radiology faculty and staff from all over the US to discuss their experiences in working in the field of radiology in the developing nations, starting collaborations and discussing future directions.

CLINICAL ACTIVITIES

Clinical Focus

My clinical practice is abdominal imaging using CT, MRI, Ultrasound and image guided biopsies. Within the abdomen, I focus on inflammatory, pre-neoplastic and neoplastic diseases of the pancreas and I actively take part in the weekly multidisciplinary conferences and research in this field. My clinical experience in the diseases of the pancreas has led to multiple publications and a book on this subject. In addition, I also run the imaging program for the multidisciplinary rectal cancer clinic that meets every week to discuss treatment options based on the imaging findings for all new patients.

Certification

Medical licensure

2008–Present Maryland #D0067338

2017-Present District of Columbia #MD044629

Board Certification

2007 - Present American Board of Radiology #54571

Clinical Service Responsibilities

2008-Present Attending radiologist, Johns Hopkins Hospital, 4 days/week in CT, MRI, ultrasound and image- guided

biopsies and intervention.

Clinical Productivity

Top 10 RVU generator for the department of radiology.

Clinical Program Building/Leadership

2009-

Pancreatitis Center: Founding member and one of the leaders of this program with gastroenterologists, pancreatic surgeons, pathologists and chronic pain physicians to provide comprehensive multidisciplinary clinical care to patients suffering from acute or chronic pancreatitis. Each physician has a dedicated interest in providing optimal clinical care for patients suffering from pancreatitis and its related symptoms.

My role is to provide recommendations on state-of-the-art imaging techniques and specialized interpretation to aid the clinical team in providing patient specific treatment, including endoscopic treatment, total pancreatectomy and islet cell autotransplantation, for patients with acute or chronic pancreatitis.

2014-2018

Johns Hopkins Aramco healthcare (JHAH) knowledge transfer program.

My role is to do the initial performance evaluation to enhance radiology programs capabilities at Johns Hopkins Aramco healthcare system in Saudi Arabia to ultimately develop and implement tele- radiology services, breast imaging and interventional radiology at Dhahran Hospital-Aramco and its satellite clinics in Saudi Arabia. Initiated an MRI training program for technologists that has trained one technologist to date. I am currently the point person for this endeavor in the department of radiology.

2015- Multidisciplinary clinic for pre-cancerous pancreatic lesions.

Founding member and the radiology leader of this program with gastroenterologists, pancreatic surgeons, pathologists. My role is assurance of image and interpretation quality, imaging protocol and standardized reporting template building I run the bimonthly multidisciplinary conference for imaging evaluation of high risk patients with gastroenterologists, pancreatic surgeons and pathologists.

2017- Multidisciplinary clinic for rectal cancer program

Founding member and radiology leader of this program with radiation oncology, surgery and oncology. My role is assurance of image and interpretation quality, imaging protocol and standardized reporting template building. I run the weekly multidisciplinary conference for imaging evaluation of patients diagnosed with rectal cancer oncologists, colorectal surgeons and radiation oncologists.

2015-2020 Associate program director Johns Hopkins University radiology residency.

2016- Director, MRI operations, Bayview Johns Hopkins Medical Center

2017- Program director, cross-sectional body imaging fellowship, Johns Hopkins University

2018 Tawam Hospital, UAE knowledge transfer program.

My role is to develop a program for loco-regional tumor therapy and its response assessment using advanced imaging techniques between Johns Hopkins Hospital and its affiliate Tawam hospital. In addition, my role is to establish a system for second opinion for complex radiologic cases between the two institutions.

2018- Peer review program for the assessment of clinical skills of radiologists at Johns Hopkins Aramco Healthcare, Dammam, Saudi Arabia.

EDUCATIONAL ACTIVITIES

Educational Focus

My educational focus is to train the next generation of radiologists as the program director of the cross-sectional imaging fellowship and the associate program director for the diagnostic radiology residency. In addition, I also run the e-learning program with a specific aim for teaching radiology residents, fellows and practicing radiologists across the country and overseas using web-based teaching tools.

Teaching

2008-present	Diagnostic radiology residency at Johns Hopkins University. Clinical instructor for image interpretation
	in abdominal and pelvic imaging.
2008-present	Body radiology fellowship at Johns Hopkins University. Clinical instructor for image interpretation in
Ť	abdominal and pelvic imaging.
2008-present	Medical student radiology rotation at Johns Hopkins University. Clinical instructor for image
·	interpretation in abdominal and pelvic imaging.
2017-present	GYN fellowship at Johns Hopkins University. Clinical instructor for training advance fellows in pelvic
•	floor imaging.

Clinical Instruction

2008-present Approximately 4 days a week of clinical days where residents and fellows review cases first and generate preliminary reports followed by a review and discussion with me, the attending radiologist.

Mentoring

2009-2010 Reema Qureshi, MD. Currently an Internist at Brown University, RI Publication: Review article# 17 2009-2010 Muhammad Ali Chaudhry, M.D. Resident in Nuclear Medicine, Johns Hopkins University. Currently a Nuclear Medicine physician, Johns Hopkins University/JHAH. Publication: # 11 original research Kenneth Gage, M.D. Resident in Radiology, Johns Hopkins University. Currently attending radiologist Moffitt cancer Center, FL. Publication: original research #13, review article #11 2010-2014 Ashkan Malayeri, M.D. Resident in Radiology, Johns Hopkins University. Currently attending radiologist, National Institute of Health, MD. Award: 2011 RSNA Certificate of merit for educational exhibit Publication: Review articles #6, 10 2011-2013 Sajal Pokharel, M.D. resident and Fellow in Radiology, Johns Hopkins University. Currently Assistant professor, Department of radiology, University of Colorado, CO Publication: Review articles #8, 9
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professor, Department of radiology, University of Colorado, CO Publication: Review articles #8, 9
Publication: Review articles #8, 9
2011-2014 Sandeep Akshintala, MD. Research Fellow at Department of Gastroenterology, Johns Hopkins
University. Currently advanced endoscopic fellow, Department of Medicine, Johns Hopkins University.
Publication: Original research # 12, 13, 14, 19, 24, 25, 42. Case report #1
Swati Deshmukh, M.D. Resident in Radiology, Johns Hopkins University, MD. Currently attending
radiologist, Feinberg School of Medicine, Northwestern University
Publication: Review article #11
Celia Corona Villalobos, M.D. Research Fellow at Department of Radiology, Johns Hopkins University.
Currently Research Associate Department of Internal Medicine. Johns Hopkins University.
2012-2013 Vivek Halappa, MD. Research Fellow at Department of Radiology, Johns Hopkins University.
Currently attending radiologist, TX
Publication: Case report # 1
2012-2014 Ryan Woods, M.D. Resident in Radiology, Department of Radiology,
Johns Hopkins University, MD. Currently assistant professor and associate chief of breast imaging,

Department of radiology, University of Wisconsin School of Medicine

Publication: Original research #14 2013 Joseph Oh, MS, currently medical student, Johns Hopkins University, MD Publication: Review article #13 2013-present Ayesha Kamal, MD. Currently Research Fellow, Department of Radiology, Johns Hopkins University, MD Publication: Original research # 16, 19, 33, 38, 42 Grant: NA-00073232 2013-present MahiyaFagih, MD. Currently Research Fellow, Department of Gastroenterology, Johns Hopkins University, MD Publications: Original research # 28, 38, 42, 45, 51, 54 2013-2014 Maera Haider, MD. Research Fellow at Department of Radiology, Johns Hopkins University. Currently abdominal imaging fellow in Radiology, Beth Israel deaconess Medical Center/Harvard Medical School, Boston, MA Publication: Original research # 17, 19. Review article #15. Grant: NA-00073232 2013-2014 Amitasha Sinha, MD. Research Fellow at Department of Gastroenterology, Johns Hopkins University. Currently Internist, ME. Publication: Original research #21, 24, 25, 28, 29, 38, 42. 2014-2016 Ahmed Zaky, MD. Currently Research Fellow at Department of Surgery, Johns Hopkins University. Currently general surgeon, Saudi Arabia. Publication: Review article #19 2015-2016 Christopher Fung, MD. Clinical fellow in abdominal imaging, Johns Hopkins University. Currently, assistant professor of radiology, University of Alberta, Canada. Publication: Review article # 24 Pancreatic imaging (Book contributor). Vibhor Wadhwa, MD. Clinical fellow, Weill Cornell Medical College, NY 2015-Present Publications: Original research #61, review article #13 2016 Ramanan Sivakumar. Currently an undergraduate student at Johns Hopkins University. 2016 Javad Azadi, MD. Resident in Radiology, department of Radiology, Johns Hopkins University, MD. Currently assistant professor, department of radiology, Johns Hopkins University, MD Publication: Pancreatic imaging (Book contributor). Nima Hafezi-Nejad, MD. Research Fellow, department of Radiology, Johns Hopkins University. 2016 Currently resident, department of Radiology, Johns Hopkins University. Publication: Original research # 45. Review article #18, 22, 24 2017 Emily Myers, MD. Clinical fellow, department of Obstetrics and Gynecology, Johns Hopkins University. Currently attending obstetrician-gynecologist, MN 2018-Rouzbeh Mashayekhi. Medical student, Johns Hopkins University, MD. Currently resident, department of radiology, Columbia University Publication: Original research #54 Prerna Raj, MD. Clinical fellow, department of Obstetrics and Gynecology, Johns Hopkins 2019 University Rafael Rambo, MD. Radiology resident, Moinhos de Vento Hospital, Porto Alegre, Brazil 2019 Abraham Bezuidehout, MD. Assistant professor of radiology, Beth Israel Medical Center/Harvard 2020 Medical School, Boston, MA. Publication: Imaging of pancreatitis. Textbook of radiology and imaging. Sutton (ed). Lippincott Williams and Wilkins; 8th edition (In Press) Alina Hasanain, MD. Currently Research Fellow, Department of Radiation Oncology, Johns Hopkins 2020-University, MD 2020-Rubab Malik. Currently Medical student, Johns Hopkins University, MD Award: ARRS Certificate of Merit for Scientific Program for educational exhibit titled: Structured CT Reporting of Pancreatic Ductal Adenocarcinoma: Impact on Report Quality, Interdisciplinary Communication and Surgical Planning 2021-Farhad Pishgar. Currently Research Fellow, Johns Hopkins University, MD

CME Instruction

Local/Region	al
2010	Tenth Annual Hot Topics in MR Imaging for the Technologist, Baltimore, MD. 1. Prostate MRI
	2. Imaging of the Female Pelvis
2011	Revised Atlanta Classification of acute pancreatitis, 37th Annual Topics in Gastroenterology and Hepato-Biliary Update Conference, Invited Speaker, Baltimore, MD
2011	Eleventh Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD. 1. Prostate MRI 2. Pancreas MRI
2012	Twelfth Annual Hot Topics in MR Imaging for the Technologist, Baltimore, MD 1. Prostate MRI
2012	2. MRI of anal fistula Revised Atlanta Classification of acute pancreatitis, Invited Speaker, 38th Annual Topics in Gastroenterology and Hepato-Biliary Update Conference, Baltimore, MD
2013	Thirteenth Annual Hot Topics in MR Imaging for the Technologist, Baltimore, MD 1. MRI of the Pancreas 2. MRI of rectal cancer staging
2014	Fourteenth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD 1. Pancreaticobiliary MRI/MRCP,
2015	2. Diffusion-Weighted Imaging in Body MRI Fifteenth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD 1. Lipid detection techniques in MRI 2. Prostate MRI
2015	CT Boot camp 2015, Las Vegas NV. 1. Imaging of acute pancreatitis. 2. CT imaging of cystic lesions of the pancreas.
2016	3. Imaging of pancreatic cancer: Bridging the radiologic-surgical divide. Sixteenth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD 1. Rectal MRI,
2016	 2. Lipid imaging Hot topics in CT 2016, Las Vegas, NV. 1. Imaging of acute pancreatitis. 2. CT imaging of cystic lesions of the pancreas. 3. Imaging of pancreatic cancer: Bridging the radiologic-surgical divide. 4. CT imaging of mesenteric vasculature
2016	CT versus MRI for pancreaticobiliary imaging, 42nd Annual Topics in Gastroenterology and Hepato-Biliary Update Conference, Invited speaker, Baltimore, MD.
2017	MRI of anal fistula, Seventeenth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD
2017	Computed Body Tomography 2017, The Cutting edge, Orlando, FL. Invited speaker. 1. Cystic lesions of the pancreas 2. CT imaging of the mesenteric vasculature 3. Reporting pancreatic cancer
2017	First Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Las Vegas, NV 1. MRI of anal fistula 2. MRI renal and adrenal gland, 3. Lipid imaging using MRI 4. Prostate MRI,
2017	Imaging primer on inflammatory pancreatic fluid collections, 43rd Annual Topics in Gastroenterology and Hepato-Biliary Update Conference, Invited speaker, Baltimore, MD.
2017	Grand rounds, <i>Imaging of pancreatic cancer: Going the extra mile.</i> Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia.
2018	Principles and practice of clinical MRI, Invited speaker, Atlantic City, NJ 1. MR imaging of pre-cancerous pancreatic lesions 2. Hepato-pancreatic interactive case session

	3. MR imaging of the Prostate cancer using PI-RADS
2018	4. MR imaging of anal fistula, Eighteenth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD
2010	1. MRI of the Prostate
	2. Lipid imaging in body applications
2018	Hot topics in Body CT scanning. Invited speaker, Nashville, TN
2010	1. Acute Pancreatitis; What the referring physician needs to know,
	2. CT of liver masses from benign to malignant,
	3. MDCT of the mesenteric vasculature,
2018	Second Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Las Vegas, NV
	1. MRI Dynamic Pelvic MRI: How to Get the Most Out of It
	2. MR Imaging of the Prostate: What the Physician Needs to Know
	3. MR Imaging of the Prostate: What the Physician Needs to Know
	4. Rectal MRI: Protocol Optimization for Rectal Cancer Staging
2018	Can Imaging Differentiate Autoimmune Pancreatitis from Pancreatic Cancer?44th Annual Topics in
	Gastroenterology and Hepato-Biliary Update Conference, Invited Speaker, Baltimore, MD
2019	Nineteenth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD
	1. Prostate MRI
	2. MRI of anal fistula,
2040	3. Dynamic pelvic MRI
2019	Third Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Las Vegas, NV
	1. Prostate MRI
2019	2. Rectal cancer staging on MRI Hot topics in hody CT accoming What you need to know Los Vecco NV
2019	Hot topics in body CT scanning: What you need to know, Las Vegas, NV. 1. CT evaluation of pancreatic cancer; What surgeons need to know.
	2. CT of liver masses: From benign to malignant.
	3. Cystic lesions of the pancreas: An update.
	4. Renal cell carcinoma: Diagnosis, Staging and surveillance.
2020	Twentieth Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD
	1. Prostate MRI
	2. Lipid imaging: An update
2021	37th Annual Computed Body Tomography 2021: The Cutting Edge, Invited Speaker, Baltimore, MD
	Imaging of Acute Pancreatitis: A Practical Guide
2021	21st Annual Hot Topics in MR Imaging for the Technologist, Invited Speaker, Baltimore, MD
	1. Prostate MRI
	2. Diffusion Weighted Imaging: application in the abdomen and pelvis

National	
2010	Interesting GU Cases, Society of GU Radiology Annual Meeting, Invited Speaker, Orlando, FL
2010	BOOST: Lymphoma-Anatomy and Contouring, Radiological Society of North America Annual Meeting, Invited Speaker, Chicago, IL.
2010	Accurate radiological reporting of acute pancreatitis, Radiological Society of North America Annual
	Meeting, Chicago, IL.
2011	BOOST: Lymphoma-Anatomy and Contouring, Radiological Society of North America Annual meeting,
	Invited Speaker, Chicago IL.
2012	Interesting GU cases, Society of GU radiology Annual meeting Invited Speaker, Scottsdale, AZ
2014	Imaging of Acute Pancreatitis Based on Revision of the Atlanta, Classification 2012: Self-Assessment
	Module course, Society of abdominal radiology, Annual meeting, Invited Speaker, Boca Raton, FL
2014	Imaging differentiation of diffuse and focal autoimmune pancreatitis on MDCT, American Roentgen Ray
	Society, Annual meeting, Invited Speaker, San Diego, CA
2015	Imaging of Acute Pancreatitis Based on Revision of the Atlanta, Classification 2012: Self-Assessment
	Module course, Society of abdominal radiology, Annual meeting, Invited Speaker, San Diego, CA.
2016	Pearls and Pitfalls of imaging metastatic disease from pancreatic cancer, Society of abdominal radiology,
	Annual meeting, Invited Speaker, Big Island, HI

2016	Refresher course on Rectal MRI, American Roentgen Ray Society annual meeting, Invited Speaker, Los Angeles, CA.
2016	Tumor vessel relationships in Pancreatic cancer, American Roentgen Ray Society annual meeting, Invited Speaker, Los Angeles, CA
2016	Mentoring Residents: Tips for Good Mentorship: Keynote Speaker, American Roentgen Ray Society annual meeting, Los Angeles, CA
2016	Imaging Differential Diagnosis of Pancreatic cystic Mass, American College of Surgeons Clinical Congress, Invited speaker, Washington DC.
2016	Imaging of Acute Pancreatitis Based on Revision of the Atlanta, Classification 2012: Self-Assessment Module course, Society of abdominal radiology, Annual meeting, Invited Speaker, Big Island, HI
2017	Society of abdominal radiology, Annual meeting, Invited Speaker, Hollywood, FL. 1. Cystic Lesions of the Pancreas: A Multidisciplinary Approach 2. Pancreas Cancer Staging: Pre and Post-op
2017	Refresher course, Autoimmune pancreatitis: An update, 103rd Scientific Assembly and Annual Meeting of the RSNA, Invited speaker, Chicago IL.
2018	Post surgical evaluation of pancreatic cancer patients from recurrence and complications, Society of abdominal radiology, Annual meeting, Invited Speaker, Scottsdale AZ.
2018	Multimodality Imaging in the work up of suspected pancreatic cancer, Society of abdominal radiology, Annual meeting, Invited Speaker for plenary session, Scottsdale AZ.
2019	Template based rectal cancer MRI reporting, Society of abdominal radiology, Annual meeting, Invited Speaker. Orlando, FL.
2019	 15th annual oncologic Imaging: A Multidisciplinary Approach. A conference for radiologists, oncologists and surgeons, Asheville, NC, invited speaker. 1. Renal cell carcinoma: Diagnosis, Staging and surveillance 2. Prostate cancer: Diagnosis, Staging and surveillance, invited speaker 3. Tumor board: Renal, Prostate and Bladder cancers 4. Cystic tumors of the pancreas 5. Unusual renal masses
2019	Pancreatic Cyst Management Algorithms: The Mess, Controversy Session: Incidental Pancreatic Cyst Management, 105th Scientific Assembly and Annual Meeting of the RSNA, Invited speaker, Chicago IL.
2020	Stellar Reporting of Rectal MRI Findings - Know What Changes Management. Speaker for plenary session, Society of abdominal radiology, Annual meeting, Maui, HI.
2020	Pancreatic Cyst Management Algorithms: How and Why. Department of Radiology, National Institute of Health, Bethesda, MD
2021	Acute Pancreatitis and Its Complications: New Treatment Options, What the Endoscopist Wants to Know and the Role of MRI. Invited speaker. Society of abdominal radiology, Annual meeting.
2021	Pancreatic Cancer Imaging: What Surgeons need to know. Invited speaker. Inaugural lecture at the Program Directors in Abdominal Radiology lecture series for abdominal radiology fellows throughout the USA.
2021	Humor in Radiology: Art or Science? Invited speaker. Society of Advanced Body Imaging (SABI) Annual meeting, Washington DC
2022	Multidisciplinary team approach to pancreatic cancer diagnosis and treatment. Invited speaker. Society of abdominal radiology, Annual meeting, Scottsdale, AZ.
2022	Using Radiomics to differentiate chronic abdominal pain, recurrent acute and chronic pancreatitis. Digestive Disease Week, Annual meeting, San Diego, CA.

International JHMI sponsored

- 2017 Fronteiras Da Medicinia, Annual Meeting. Imited Speaker, Porto Alegre, Brazil.
 - 1. Imaging for pancreatic neoplasias in the genomics era.
 - 2. e-Learning, the Hopkins Radiology experience
 - 3. Panel discussion on new models for medical Education.
- 2018 Academic event Fundación Santa Fe de Bogotá, Invited speaker for 100 radiologists, Bogota, Colombia
 - 1. Hepatobiliary MR imaging
 - 2. Diffusion weighted MR imaging applications in the abdomen
 - 3. MR imaging of the pancreas: From inflammation to cancer
 - 4. 3T MR imaging for prostate cancer staging using PIRADS

	5. Dynamic MR imaging of the female pelvis
2018	6. Interesting case conference "MRI metrics for assessing response to therapy for liver tumors", Grand round speaker, Tawam Hospital, Al-Ain,
2019	United Arab Emirates. Visiting Professor at Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia
2017	1. Hepatic Imaging: A patterned approach
	2. Rectal cancer MRI: Protocol and response to therapy
	3. Pancreatitis jeopardy: Interesting case conference
	4. Unusual renal tumors
	5. Multimodality imaging in the work up of suspected Pancreatic cancer
2021	6. MRI protocol optimization for Rectal cancer
2021	Visiting Professor at Johns Hopkins Aramco Healthcare, Dhahran, Saudi Arabia
	 Cystic lesions of the pancreas: An overview Tumor of the liver: Pattern based recognition
2022	Unusual renal masses. <i>Invited Speaker</i> , Hospital Moinhos de Vento, Porto Alegre, Brazil
International	
2011	Posterior compartment disease: fistulas and inflammatory disease. EuropeanSociety of uroradiology(ESUR) Annual
2012	meeting Invited Speaker, Dubrovnik, Croatia
2012	UAE Cancer Congress Invited Speaker, Dubai, UAE 1. MRI of Prostate
	2. Breast MRI Primer,
	3. MRI of Rectal Cancer Staging
2012	Advances in Tumor Imaging in conjunction with Transplant Imaging, Visiting professor, Invited
	Speaker, King Fahd Specialist Hospital, Dammam, Saudi Arabia
	1. Magnetic Resonance Elastography
	2. RECIST evaluation
	MRI of Prostate gland Imaging of Liver transplantation
	5. Renal transplant Imaging
	6. Patterns of spread of metastatic disease in the pelvis
	7. Radiology jeopardy: Interesting case conference
2013	Patterns of metastatic disease in the female pelvis, Invited Speaker, Society of ESUR radiology, Annual meeting,
	Istanbul, Turkey
2014	"Correct terminology in evaluation of Acute Pancreatitis", Grand round speaker, Dhahran Hospital-
	Aramco, "Imaging of Acute Pancreatitis Based on the Revised Atlanta Classification", Al-Khobar, Saudi
2015	Arabia. Female pelvic malignancies: Staging essentials and avoiding pitfalls, Society of ESUR radiology, Annual meeting,
2013	Invited Speaker, Copenhagen, Denmark
2019	14th annual oncologic Imaging: A Multidisciplinary Approach. A conference for radiologists, oncologists
	and surgeons, Havana, Cuba, invited speaker.
	1. Renal cell carcinoma: Diagnosis, Staging and surveillance
	2. Prostate cancer: Diagnosis, Staging and surveillance
2040	3. Tumor board: Renal, Prostate and Bladder cancers
2019	Pancreatic imaging symposium, Visiting Professor , Suleyman DemirelUniversitesi, Isparta, Turkey.
	 Imaging of pancreatic cancer in the genomics era. Chronic pancreatitis: Imaging findings on CT and MRI.
	3. Imaging of Autoimmune pancreatitis.
	4. Pancreatic cancer: What surgeons need to know
	5. Pancreatic disease; From head to tail
2019	Imaging and intervention of complications of renal transplantation, invited speaker, EuropeanSociety of
• • • • • • • • • • • • • • • • • • • •	uroradiology (ESUR), Dublin, Ireland
2019	3 rd Advances in Tumor Imaging conference, Invited Speaker, King Fahad Specialist Hospital, Dammam,
	Saudi Arabia
	Liver masses: Pattern based approach MRI rectal cancer
	3. MRI imaging of Overign cancer

3. MRI imaging of Ovarian cancer

- 4. Pancreas head to tail; Case review
- 5. MRI imaging of the prostate gland
- 6. Tumor vessel relationship evaluation for staging of Pancreatic cancer
- 2019 Imaging of pancreatic cancer in the genomics era. Invited speaker, Department of radiology, University of Alberta, Canada.
- 2019 Pancreatic imaging: Case review. Visiting Professor, Invited speaker, Department of radiology, University of Alberta, Canada.
- 2020 Rectal Cancer MRI: Staging and treatment response assessment. Invited speaker, 1st Colorectal Symposium Imperial College, London, UK.
- 2020 Pre-Surgical evaluation of Pancreatic cancer. Invited speaker, International Webinar Club del Páncreas Argentina.
- 2020 CT evaluation of Pancreatic Ductal Adenocarcinoma: What the Surgeons need to know. Pancreatic cancer symposium. Invited speaker, Radiological Society of Pakistan.
- 2021 Pre-operative imaging evaluation of pancreatic cancer. Invited speaker, Arab Board of Radiology and the Pan Arab Association of Radiological Societies (PAARS), Beirut, Lebanon.

Workshops/Seminars

- Jeddah Academic Day 2012. Radiology Case Conference workshop for residents from all over Riyadh from National Guard Hospital, King Abdul Aziz University Hospital, King Fahd Armed Forces Hospital, King Faisal Specialist Hospital and the Ministry of Health (Approximately 80) for a full day as the only invited Speaker, Jeddah, Saudi Arabia
- Johns Hopkins Endorectal brachytherapy workshop. MRI anatomy of the male and female pelvis. Invited Speaker, Baltimore, MD
- e-radiology lecture series and case conferences to radiologists at St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia
- Director, train the trainer program, St. Paul Millennium hospital, Addis Ababa, Ethiopia. Two day workshop on how to be a teacher with emphasis on public speaking, knowledge testing, and the use of technology for teaching.
- 2017 Co-Director and speaker, learning radiology from Y and Z, Dubai, UAE. Two day seminar on neuro and abdominal imaging for 30 course attendees.
- 2019 Mock rectal cancer tumor board, speaker, Fund raising event at Johns Hopkins Hospital, Baltimore, MD
- 2022 Complex genitourinary cases. Hospital Moinhos de Vento, Porto Alegre, Brazil

Panels and Grand rounds

- 10/20/14 Presiding officer, Pancreas Benign Diseases. 101st Scientific Assembly and Annual Meeting, Radiological Society of North America (RSNA), November 29 -December 4, 2015.
- 04/22/16 Moderator and Keynote speaker, Scientific Session, *Educations and Residents*, American Roentgen Ray Society, Annual Meeting, Los Angeles, CA.
- 11/28/16 Presiding officer, Gastrointestinal (Multi-modality). 102nd Scientific Assembly and Annual Meeting, Radiological Society of North America (RSNA), November 27 -December 2, 2016.
- 9/6/2017 Fronteiras Da Medicinia, Annual Meeting. *Panel discussion on new models for medical Education. Invited Speaker*, Porto Alegre, Brazil.
- 11/27/17 Presiding officer and faculty refresher course, Pancreatic imaging. 103rd Scientific Assembly and Annual Meeting, Radiological Society of North America (RSNA), November 26 -December 1, 2017
- 04/09/2018 Grand rounds speaker, *In search of educational Utopia*, Invited speaker, MD Anderson Cancer center, Houston, TX
- 12/13/2018 Grand rounds speaker, "Hepatobiliary MRI made easy, well almost." St. Agnes Hospital, Baltimore, MD. Grand rounds speaker, "In search of the Educational Utopia" Grand rounds speaker, Johns Hopkins
 - Aramco Healthcare, Dhahran, Saudi Arabia.
- 2021 Acute Pancreatitis and Its Complications: New Treatment Options, What the Endoscopist Wants to
- Know and the Role of MRI. Expert panel discussion. Society of abdominal radiology, Annual meeting.

 Moderator, Scientific session for Gastrointestinal (Pancreas/CT Techniques and Dose Reduction).
- Moderator, Scientific session for Gastrointestinal (Pancreas/CT Techniques and Dose Reduction) 107th Scientific Assembly and Annual Meeting, Radiological Society of North America (RSNA),
 - November 28 -December 2, 2021.

2022 How to keep your sanity as an academic radiologist. Visiting Professor. Grand rounds. University of

Louisville, KY

2022 Difficult pancreatic cases. Visiting Professor. Grand rounds. University of Louisville, KY

2022 Moderator, Scientific session for Pancreatic malignancies at European Congress of Radiology(ECR)

annual meeting. Vienna, Austria. July 16th, 2022.

Educational Program Building/Leadership

2014- Medical Director, e-Radiology learning, Department of Radiology, Johns Hopkins University. e-

Radiology learning is an interactive program hosted by the Radiology department which provides radiology residents and practicing radiologists around the world a radiology lecture series designed to address core knowledge of normal anatomy, pathology and background physics required for successful practice of the field. Lectures are delivered live by subspecialty-trained radiologists to viewers in the US, Middle-east, and Africa who have the opportunity to participate in the didactic lectures as well as ask

questions.

2015- Associate program director radiology residency Johns Hopkins University

2016-17 Program director, e-Learning subspecialty training in 4 radiology specialties for 10 radiologists at St. Paul

Millennium Hospital, Addis Ababa, Ethiopia. First radiology sub-specialty training program in the Sub-Saharan Africa outside of South Africa. As a result, the trainees have initiated an onsite training program

which has trained 4 fellows to date.

2017- Program director, cross-sectional body imaging fellowship, Johns Hopkins University

2019- Moinhos De Vento Hospital, Brazil knowledge transfer program

Initiated a visiting scholar program in 2019 with visits of multiple residents in different specialties

including radiology from HMV to Johns Hopkins.

RESEARCH ACTIVITIES

Research Focus

My research focus is imaging of the pancreas that includes inflammatory, pre-neoplastic conditions and tumors using CT and MRI. I have authored a number of original scientific publications in collaboration with the gastroenterology and surgery departments at my institution along with many review articles on this subject. I have also edited a book on pancreatic imaging in conjunction with the department of pathology.

SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

System Innovation and Quality Improvement Efforts within JHM

Work in progress on a project to improve adult inpatient care coordination and communication between inpatient physicians and radiology (for example: scheduling, patient preparation and patient education before an exam, communication of results, patient transport to and care in the radiology department). In addition to outlining their own difficulties with radiology recently experienced as medical and surgical interns in other hospitals, a survey will be conducted by our medical and surgical house staff to determine areas for improvement at Hopkins. From these, actionable items will be selected and improvement measures implemented. Faculty from CVDL, any biopsy service, fluoroscopy, MRI and CT and nuclear medicine are most relevant to this project. In the end, web page of useful information to improve adult inpatient care coordination will be created.

System Innovation and Quality Improvement Efforts outside of JHM

Johns Hopkins Aramco healthcare (JHAH), Saudi Arabia. To assess the current performance of Johns Hopkins Aramco healthcare system in Saudi Arabia with an aim to improve systems and quality in regards to tele- radiology services, breast imaging and interventional radiology at Dhahran Hospital-Aramco and its satellite clinics in Saudi Arabia in association with Johns Hopkins International (JHI).

Hospital Moinhos De Vento (HMV), Brazil. To assess the performance of the newly initiated residency programs in 10 specialties at HMV in Porto Alegre, Brazil and make recommendations on improvement of the post graduate training programs in association with Johns Hopkins International (JHI).

2018 Tawam Hospital knowledge transfer program. To establish a system for second opinion for complex radiologic cases between the two institutions

Production of Guidelines and/or Protocols

Template building for standardized reporting of MRI performed for the evaluation of chronic pancreatitis with secretin in an effort to improve the communication between radiologists, gastroenterologists, and surgeons to facilitate treatment planning, to enhanced outcomes and create uniformity for enrollment into research studies at Johns Hopkins Hospital. Currently in use.

Member, Cystic Pancreatic Lesions Working Group, society of abdominal radiology (SAR). The goal of this initiative at this national and international society is to address the current variability in evaluation of cystic pancreatic lesions and a lack of standardized radiology reporting, by formulating a concise radiology reporting template that is designed to aid in the diagnosis and management of cystic tumors of the pancreas, and to generate a consensus opinion regarding use of imaging in follow-up of cystic tumors of the pancreas.

Template building for standardized reporting of MRI performed for the evaluation of rectal cancer staging and post treatment effects in an effort to improve the communication between radiologists, radiation oncologists, and surgeons to facilitate treatment planning, to enhanced outcomes and create uniformity for enrollment into research studies at Johns Hopkins Hospital. Currently in use.

Template building for standardized reporting of CT performed for the pre-operative evaluation of pancreatic ductal adenocarcinoma cancer staging in an effort to improve the communication between radiologists, radiation oncologists, and surgeons to facilitate treatment planning, to enhanced outcomes and create uniformity for enrollment into research studies at Johns Hopkins Hospital. Currently in use.

System Innovation and Quality Improvement Program Building/Leadership

Johns Hopkins Aramco healthcare (JHAH) knowledge transfer program. Did the initial performance evaluation at Johns Hopkins Aramco healthcare system in Saudi Arabia with quality improvement recommendations and implementation regarding tele- radiology services, breast imaging and interventional radiology at Dhahran Hospital-Aramco and its satellite clinics in Saudi Arabia.

Tawam Hospital knowledge transfer program. To develop a program for loco-regional tumor therapy and its response assessment using advanced imaging techniques between Johns Hopkins Hospital and its affiliate Tawam hospital.

In addition, my role is to establish a system for second opinion for complex radiologic cases between the two institutions

ORGANIZATIONAL ACTIVITIES

Institutional Administrative Appointments

2009-Present Member, Communications and Conferences, Residency Education, Johns Hopkins University

Department of Radiology

2009-Present Member, body MRI fellowship selection committee

2012-Present Sub-Chair, Communications and Conferences, Residency Education, Johns Hopkins University

Department of Radiology

2010-Present e-Radiology Steering Committee Providing Education to Residency Education Programs within the

United States and internationally to programs in South America and the Middle East

2014-Present Medical Director, e-Radiology learning, Department of Radiology, Johns Hopkins Hospital. e-Radiology

learning is an interactive educational program hosted by the Johns Hopkins Department of Radiology, which provides radiologists and residency programs around the world with a radiology lecture series designed to address core knowledge of normal anatomy, pathologic conditions, and physics. Lectures are delivered live by subspecialty-trained radiologists, with the opportunity for direct interaction from

participants following the presentation.

2014- Member, body CT fellowship selection committee 2014- Member, Radiology residency selection committee

2015- Associate program director radiology residency Johns Hopkins University
2016- Director MRI operations Bayview Medical Center, Johns Hopkins University

2017- Program director, cross-sectional body imaging fellowship, Johns Hopkins University

Editorial Activities

Editorial Board Appointments

2011-Present Member committee "American Journal of Radiology", CME Section

2019-20 Guest editor, "Pancreatitis" issue. Abdominal Radiology. 2020- Associate Editor (Pancreas). Abdominal Radiology

Journal Reviewer

2013-Present Ad hoc Reviewer, 'Digestive Diseases and Sciences', Manuscript review

2014–Present Ad hoc Reviewer, "Abdominal Imaging", Manuscript Review 2014–Present Ad hoc Reviewer, "Acta Radiologica", Manuscript review

Advisory Committees

2011-2013 American Roentgen Ray Society (ARRS) E-Learning/SHERPA Committee

2014-Present Cystic Pancreatic Lesions Working Group, Society of Abdominal Radiology (SAR). To address the

current variability in evaluation of cystic pancreatic lesions and a lack of standardized radiology reporting, by formulating a concise radiology reporting template that is designed to aid in the diagnosis and management of cystic tumors of the pancreas, and to generate a consensus opinion regarding use of

imaging in follow-up of cystic tumors of the pancreas.

2015-Present Pancreatitis Working Group, Society of Abdominal Radiology (SAR). To address the current issues with

imaging acute and chronic pancreatitis in a multidisciplinary approach with special emphasis on imaging.

2016-Present Pancreatic cancer, Disease focus panel, Society of Abdominal Radiology (SAR). To address the current

issues and challenges in imaging pancreatic cancer.

Professional Societies

1998–Present Member, Radiological Society of North America (RSNA) 2008–Present Member, Society of Abdominal Radiology (SAR)

2017- Present Member, American College of Radiology (ACR)

Conference Organizer, Session Chair

2010 **Chair,**RAD-AID conference, Baltimore, MD

2016- Chair, Pancreatitis Disease focus panel, Society of Abdominal Radiology (SAR), To address the current

issues with imaging acute and chronic pancreatitis in a multidisciplinary approach with special emphasis

on education.

Leading author, ACR Appropriateness criteria-Acute pancreatitis.
 Leading author, ACR Appropriateness criteria- Epigastric pain

2022 Leading author, ACR Appropriateness criteria- Staging of pancreatic ductal adenocarcinoma

Consultant ships

2009-present ICON Medical Imaging.2019-present Elsevier publishing company.

RECOGNITION

Awards and Honors

2001	Morrison Research Award for Exemplary Efforts in the Creation of New Knowledge
2001	Department of Radiology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA.
2002	The Risa and Felix Fleischner Young Investigator Award for Outstanding Research performed as a
2002	Fellow in the Department of Radiology, Beth Israel Deaconess Medical Center, Harvard Medical School,
	Boston, MA
2009	Outstanding teacher of the year in recognition of exceptional ability as radiologist and Teacher,
	Department of Radiology, Johns Hopkins University, Baltimore, MD
2011	Gatewood Research Award for Research on a Novel Idea, Award amount: \$10,000
2011	RSNA Certificate of merit for educational exhibit titled: Diffusion Weighted Imaging: Principals and
	Application in Body Imaging
2012	RSNA Honored Educator Award
2012	RSNA Certificate of merit for educational exhibit titled: Emerging Novel MR Imaging Techniques for
	the Diagnosis and Staging Hepatic Fibrosis and Portal Hypertension
2013	ARRS Clinician Educator Development Program 2013. Selected as one of the 25 nominees nationwide to
	attend the program. Award amount: \$1,000
2014	Fellow status Society of Abdominal Radiology
2016	ARRS Bronze Award for Scientific Program for educational exhibit titled: Tumor-Vessel Relationships in
	Pancreatic Cancer
2017	Distinguished Reviewer for the Abdominal Radiology journal
2017	Finalist for RSNA Alexander R. Margulis Award for Scientific Excellence on publication titled "Changes
	in Physician Decision Making after CT: A Prospective Multicenter Study in Primary Care Setting"
2019	Distinguished Reviewer for the Abdominal Radiology journal
2020	Distinguished Reviewer for the Abdominal Radiology journal
2022	ARRS Certificate of Merit for Scientific Program for educational exhibit titled: Structured CT Reporting of
	Pancreatic Ductal Adenocarcinoma: Impact on Report Quality, Interdisciplinary Communication and Surgical Planning