

## Curriculum Vitae

<b>Name in Full</b>	Sunguk Jang
<b>Country</b>	USA
<b>Affiliation</b>	Cleveland Clinic
<b>Email</b>	jangs@ccf.org

### **Educational Background**

Undergraduate: University of Michigan  
Medical School: University of Maryland  
Residency: University of Maryland  
GI fellowship: Drexel College of Medicine  
Interventional Endoscopy Fellowship: Cleveland Clinic

### **Professional Career**

Position/Rank: Staff  
Associate Director of Endoscopy  
Institution: Cleveland Clinic  
Institute: Digestive Disease and Surgical Institute  
Department: Gastroenterology and Hepatology  
Dates: 07/2010 - Present

Position/Rank: Staff  
Director of Endoscopy  
Institution: Cleveland Clinic, Florida  
Institute: Digestive Disease and Surgical Institute  
Department: Gastroenterology and Hepatology  
Dates: 08/2008 – 06/2010

Position/Rank: Associate Staff  
Institution: Cleveland Clinic  
Institute: Digestive Disease and Surgical Institute  
Department: Gastroenterology and Hepatology  
Dates: 07/2007 – 08/2008

Position/Rank: Clinical Assistant Professor  
Institution: University of Maryland Health System  
Maryland General Hospital  
Institute: Internal Medicine  
Department: Hospital Medicine  
Dates: 07/2002 – 06/2003

1. Grant Support Agency: U.S. Endoscopy  
Title: Safety and Efficacy of Padlock™ over-the-scope hemoclip  
Principal Investigator: Sunguk Jang  
Dates: September 2018 – present
2. Grant Agency: M.I.Tech,  
Project Title: Safety and Efficacy of Hanaro™ Fully Covered Self- Expandable Metallic Stent  
Principal Investigator: Sunguk Jang  
Dates: October 2013 – December 2015
3. Grant Agency: Medtronic (Formerly Barrx Medical)  
Title: Ablation of Intestinal Metaplasia Containing Dysplasia (AIM Dysplasia Trial) A Multi-center, Randomized, Sham-Controlled Trial  
Principal Investigators: Gary Falk<sup>1</sup>, John Dumot<sup>2</sup>, Sunguk Jang<sup>3</sup>  
Dates: 08/2007 – 05/2014
4. Grant Agency: Medtronic (Formerly Barrx Medical)  
Title: HALO (Radio-frequency ablation of dysplastic Barrett's esophagus) registry  
Principal Investigator: Sunguk Jang  
Dates: 12/2010 – 03/2014
5. Grant Agency: CSA Medical  
Title: CryoSpray Ablation GI Patient Registry  
Principal Investigator: Sunguk Jang  
Dates: 11/2009 – 03/2014
6. Grant Agency: CSA Medical  
Title: A Pilot Study of Cryotherapy for Barrett's Esophagus with High-Grade Dysplasia and Early Esophageal Cancers  
Principal Investigators: John Dumot<sup>1</sup>, Sunguk Jang<sup>2</sup>  
Dates: 11/2008 – 08/2012

## **Unfunded (Active) Researches**

1. Title: Utility of repeat endoscopy in acute, recurrent non-variceal GI bleed: Comparison between repeat endoscopic treatment with arterial embolization by interventional radiology  
Principal Investigator: Sunguk Jang  
Date: 08/2016 – present
2. Title: Utility of digital cholangioscopy  
Principal Investigator: Sunguk Jang  
Date: 09/2018 – present
3. Title: Biliary endo-prosthesis outcome  
Principal Investigator: Sunguk Jang  
Date: 12/2012 – present
4. Title: Factors Affecting Performance of Balloon Enteroscopy: A Large Single Center Experience  
Principal Investigator: Sunguk Jang  
Date: 06/2017 - present

## **Unfunded Researches with Manuscript publication/National presentation**

1. Title: Comparative outcome between endoscopic stenting vs. gastric bypass in patients with gastric outlet obstruction  
Principal Investigator: Sunguk Jang  
Date: Nov 2017 – 12/2018
2. Title: Outcome of liver transplant patients undergoing endoscopic retrograde cholangiopancreatography (ERCP)  
Principal Investigator: Sunguk Jang  
Date: 02/2017 – 12/2018
3. Title: Outcomes of Biliary Self-Expandable Metallic Stent placement  
Principal Investigator: Sunguk Jang  
Date: 04/2015 – 08/2017

## Papers, Books, etc. presented or published by your name

(topic title, year, conference name or presenting books)

1. Navaneethan U, Gutierrez NG, Jegadeesan R, Venkatesh PG, Poptic E, Liu X, Sanaka MR, **Jang S**, Vargo JJ, Parsi MA. Vascular endothelial growth factor levels in bile distinguishes pancreatic cancer from other etiologies of biliary stricture: a pilot study. *Dig Dis Sci*. 2013 Oct;58(10):2986-92.
2. Parsi MA, **Jang S**, Sanaka M, Stevens T1, Vargo JJ. Diagnostic and therapeutic cholangiopancreatography: performance of a new digital cholangioscope. *Gastrointest Endosc*. 2014 Jun;79(6):936-42
3. Navaneethan U, Gutierrez NG, Venkatesh PG, Jegadeesan R, Zhang R, **Jang S**, Sanaka MR, Vargo JJ, Parsi MA, Stevens T. Lipidomic profiling of bile in distinguishing benign from malignant biliary strictures: a single-blinded pilot study. *Am J Gastroenterol*. 2014 Jun;109(6):895-902.
4. **Jang S**, Samarasena J. Ultra-slim configuration advances upper endoscopy and colonoscopy. *Gastroenterology & Hepatology* news. 2014 Sep;6-7
5. Albeldawi M, Ha D, Mehta P, Lopez R, **Jang S**, Sanaka MR, Vargo JJ. Utility of urgent colonoscopy in acute lower gastro-intestinal bleeding: a single-center experience. *Gastroenterol Rep (Oxf)*. 2014 Nov;2(4):300-5
6. Parsi MA, **Jang S**. Hemospray for diffuse anastomotic bleeding. *Gastrointest Endosc*. 2014 Dec;80(6):1170
7. Navaneethan U, Parsi MA, Gutierrez NG, Bhatt A, Venkatesh PG, Lourdasamy D, Grove D, Hammel JP, **Jang S**, Sanaka MR, Stevens T, Vargo JJ, Dweik RA. Volatile organic compounds in bile can diagnose malignant biliary strictures in the setting of pancreatic cancer: a preliminary observation. *Gastrointest Endosc*. 2014 Dec;80(6):1038-45
8. Parsi MA, Bhatt A, Stevens T, **Jang S**, Vargo JJ. Cholangioscopic diagnosis of iatrogenic recurrent choledocholithiasis. *Gastrointest Endosc*. 2015 May;81(5):1263-4.
9. Parsi MA, Stevens T, Bhatt A, **Jang S**, Digital, Catheter-Based Single-Operator Cholangiopancreatoscopes: Can Pancreatography and Cholangioscopy Become Routine Procedures? *Gastroenterology*. 2015 Dec;149(7):1689-90
10. Mohamad B, Bhatt A, Kumaravel A, Aucejo F, **Jang S**, Stevens T, Vargo J, Parsi M. Xanthogranulomatous Cholecystitis Mimicking Biliary Tract Cancer. *ACG Case Rep J*. 2015 Oct 9;3(1):57-9.
11. **Jang S**, Parsi MA, Collins J, Vargo J. Predictors of esophageal self-expandable metal stent migration: An academic center study. *Gastrointestinal Intervention* 2016; 5(1): 72-79
12. Thota PN, Sada A, Sanaka MR, **Jang S**, Lopez R, Goldblum JR, Liu X, Dumot JA, Vargo J, Zuccarro G. Correlation between endoscopic forceps biopsies and endoscopic mucosal resection with endoscopic ultrasound in patients with Barrett's esophagus with high-grade dysplasia and early cancer. *Surg Endosc*. 2017 Mar;31(3):1336-1341.

13. Bhatt A, Abe S, Kumaravel A, Parsi MA, Stevens T, **Jang S**, Lopez R, Oda I, Vargo JJ, Saito Y. Video-based supervision for training of endoscopic submucosal dissection. *Endoscopy*. 2016 Aug;48(8):711-6
14. Garber A, **Jang S**. Novel Therapeutic Strategies in the Management of Non-Variceal Upper Gastrointestinal Bleeding. *Clin Endosc*. 2016 Sep;49(5):421-424
15. Bhatt A, Parsi MA, Stevens T, Gabbard S, Kumaravel A, **Jang S**, Grove D, Lopez R, Murthy S, Vargo JJ, Dweik R. Volatile organic compounds in plasma for the diagnosis of esophageal adenocarcinoma: a pilot study. *Gastrointest Endosc*. 2016 Oct;84(4):597-603.
16. Al Taii H, Confer B, Gabbard S, Kroh M, **Jang S**, Rodriguez J, Parsi MA, Vargo JJ, Ponsky J, Bhatt A. Endoscopic Management of an Intramural Sinus Leak After Per- Oral Endoscopic Myotomy. *ACG Case Rep J*. 2016 Nov 23;3(4):e158
17. **Jang S**, Stevens T, Parsi MA, Lopez R, Vargo JJ. Aspirin Use Is Associated With Reduced Risk of Occlusion of Metallic Biliary Stents. *Clin Gastroenterol Hepatol*. 2017 Mar;15(3):446-453
18. Mejía-Pérez LK, Abe S, Stevens T, Parsi MA, **Jang S**, Oda I, Vargo JJ, Saito Y, Bhatt A. A minimally invasive treatment for early GI cancers. *Cleve Clin J Med*. 2017 Sep;84(9):707-717
19. Balagamwala E, Berriochoa C, Leyrer C, Reddy C, Stephans K, Raja S, Raymond D, Murthy S, Bhatt A, **Jang S**, Videtic G. T1N0 Esophageal Cancer: A Patterns of Care and Survival Analysis. *International Journal of Radiation OncologyBiologyPhysics* 2017 Oct; 99(2):E136-E137
20. **Jang S**, Parsi MA, Lopez R, Bhatt A, Vargo JJ. Efficacy and Optimal Duration of Metallic Stent in the Management of Refractory Anastomotic Stricture After Liver Transplantation. *Clin Gastroenterol Hepatol*. 2017 Nov;15(11):1776-1781.
21. Tsai FC, Ghorbani S, Greenwald BD, **Jang S**, Dumot JA, McKinley MJ, Shaheen NJ, Habr F, Wolfsen HC, Abrams JA, Lightdale CJ, Nishioka NS, Johnston MH, Zfass A, Coyle WJ. Safety and efficacy of endoscopic spray cryotherapy for esophageal cancer. *Dis Esophagus*. 2017 Nov 1;30(11):1-7
22. Choi YH, Jang DK, Lee SH, **Jang S**, Choi JH, Kang J, Paik WH, Lee JK, Ryu JK, Kim YT. Utility of serum phosphate as a marker for predicting the severity of post-endoscopic retrograde cholangiopancreatography pancreatitis. *United European Gastroenterol J*. 2018 Jul;6(6):895-901
23. **Jang S**, Stevens T, Parsi M, Lopez R, Zuccaro G, Dumot J, Vargo JJ. Association of covered metallic stents with cholecystitis and stent migration in malignant biliary stricture. *Gastrointest Endosc*. 2018 Apr;87(4):1061-1070
24. Paik WH, Lee SH, **Jang S**. Future Perspectives on Endoscopic Ultrasonography-Guided Therapy for Pancreatic Neoplasm. *Clin Endosc*. 2018 May;51(3):229-234
25. Mehta N, Strong AT, Franco M, Stevens T, Chahal P, **Jang S**, Lopez R, Patil D, Abe S, Saito Y, Uraoka T, Vargo J, Bhatt A. Optimal injection solution for endoscopic submucosal dissection: A randomized controlled trial of Western solutions in a porcine model. *Dig Endosc*. 2018 May;30(3):347-353.

26. Thota PN, Arora Z, Dumot JA, Falk G, Benjamin T, Goldblum J, **Jang S**, Lopez R, Vargo JJ. Cryotherapy and Radiofrequency Ablation for Eradication of Barrett's Esophagus with Dysplasia or Intramucosal Cancer. *Dig Dis Sci*. 2018 May;63(5):1311-1319
27. Paik WH, Lee TH, Park DH, Choi JH, Kim SO, **Jang S**, Shim JH, Song TJ, Lee SS, Seo DW, Lee SK, Kim MH. EUS-Guided Biliary Drainage Versus ERCP for the Primary Palliation of Malignant Biliary Obstruction: A Multicenter Randomized Clinical Trial. *Am J Gastroenterol*. 2018 Jul;113(7):987-997
28. Mehta N, Abushahin A, Franco M, Stevens T, Chahal P, Vargo J, **Jang S**, Bhatt A. Endoscopic retrieval of a lumen-apposing metal stent complicated by inward migration after cystogastrostomy. *Endoscopy*. 2018 Oct;50(10):E286-E288
29. **Jang S**, Stevens T, Lopez R, Bhatt A, Vargo JJ. Superiority of gastrojejunostomy over endoscopic stenting for palliation of malignant gastric outlet obstruction. *Clin Gastroenterol Hepatol*. 2018 Oct 31. pii: S1542-3565(18)31208-4. doi: 10.1016/j.cgh.2018.10.042. [Epub ahead of print]
30. Thota PN, Benjamin T, Sanaka MR, Goldblum JR, Vargo J, **Jang S**, Lopez R. 27. Clinical outcomes based on the timing of appearance of visible lesions in Barrett's esophagus during endoscopic eradication therapy. *J Clin Gastroenterol*. 2019 Jan 4. doi: 10.1097/MCG.0000000000001165. [Epub ahead of print]
31. Yoon WJ, Park DH, Choi JH, **Jang S**, Samarasena J, Lee TH, Paik WH, Song TJ, Choi JH, Hara K, Iwashita T, Perez-Miranda M, Lee JG, Vazquez-Sequeiros E, Naitoh I, Vila JJ, Brugge WR, Lee SS, Seo DW, Lee SK, Kim MH. The underutilization of EUS-guided biliary drainage: Perception of endoscopists in the East and West. *Endosc Ultrasound*. 2019 Feb 4. doi: 10.4103/eus.eus\_57\_18. [Epub ahead of print]
32. Chen YI, Yang J, Friedland S, Holmes I, Law R, Hosmer A, Stevens T, **Jang S**, Pawa R, Mathur N, Sejjal DV, Inamdhar S, Trindade AJ, Nieto J, Berzin TM, DeSimone ML, DiMaio C, Kumta NA, Gupta S, Yachimski P, Anderloni A, Baron TH, James TW, Jamil LH, Ona MA, Lo SK, Gaddam S, Dollhopf M, Bukhari MA1, Moran R, Gutierrez OB, Sanaei O, Ngamruengphong S, Kumbhari V, Singh V, Khashab MA. Lumen apposing metal stents are superior to plastic stents in pancreatic walled-off necrosis: a large international multicenter study. *Endosc Int Open*. 2019 Mar;7(3):E347-E354.
33. Kichler A, **Jang S**. Endoscopic Hemostasis for Non-Variceal Upper Gastrointestinal Bleeding (NVUGIB): New frontiers. *Clin Endosc*. 2019 March (in press)
34. Bhatt A, Abe S, Kumaravel A, Parsi MA, Stevens T, **Jang S**, Lopez R, Oda I, Vargo JJ, Saito Y. Video-based supervision for training of endoscopic submucosal dissection. *Endoscopy*. 2016 Aug;48(8):711-6
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37. Al Taii H, Confer B, Gabbard S, Kroh M, **Jang S**, Rodriguez J, Parsi MA, Vargo JJ, Ponsky J, Bhatt A. Endoscopic Management of an Intramural Sinus Leak After Per- Oral Endoscopic Myotomy. *ACG Case Rep J*. 2016 Nov 23;3(4):e158
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49. Mehta N, Abushahin A, Franco M, Stevens T, Chahal P, Vargo J, **Jang S**, Bhatt A. Endoscopic retrieval of a lumen-apposing metal stent complicated by inward migration after cystogastrostomy. *Endoscopy*. 2018 Oct;50(10):E286-E288
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51. Thota PN, Benjamin T, Sanaka MR, Goldblum JR, Vargo J, **Jang S**, Lopez R. 27. Clinical outcomes based on the timing of appearance of visible lesions in Barrett's esophagus during endoscopic eradication therapy. *J Clin Gastroenterol*. 2019 Jan 4. doi: 10.1097/MCG.0000000000001165. [Epub ahead of print]
52. Yoon WJ, Park DH, Choi JH, **Jang S**, Samarasekera J, Lee TH, Paik WH, Song TJ, Choi JH, Hara K, Iwashita T, Perez-Miranda M, Lee JG, Vazquez-Sequeiros E, Naitoh I, Vila JJ, Brugge WR, Lee SS, Seo DW, Lee SK, Kim MH. The underutilization of EUS-guided biliary drainage: Perception of endoscopists in the East and West. *Endosc Ultrasound*. 2019 Feb 4. doi: 10.4103/eus.eus\_57\_18. [Epub ahead of print]
53. Chen YI,, Yang J, Friedland S, Holmes I, Law R, Hosmer A, Stevens T, **Jang S**, Pawa R, Mathur N, Sejjal DV, Inamdar S, Trindade AJ, Nieto J, Berzin TM, DeSimone ML, DiMaio C, Kumta NA, Gupta S, Yachimski P, Anderloni A, Baron TH, James TW, Jamil LH, Ona MA, Lo SK, Gaddam S, Dollhopf M, Bukhari MA1, Moran R, Gutierrez OB, Sanaei O, Ngamruengphong S, Kumbhari V, Singh V, Khashab MA. Lumen apposing metal stents are superior to plastic stents in pancreatic walled-off necrosis: a large international multicenter study. *Endosc Int Open*. 2019 Mar;7(3):E347-E354.
54. Kichler A, **Jang S**. Endoscopic Hemostasis for Non-Variceal Upper Gastrointestinal Bleeding (NVUGIB): New frontiers. *Clin Endosc*. 2019 March (in press)