



## CURRICULUM VITAE

<b>Name</b>	C. Prakash Gyawali	<b>Country</b>	USA
<b>Affiliation/ Present Position</b>	Professor of Medicine Division of Gastroenterology Washington University School of Medicine, St. Louis, Missouri, USA		

<b>Education</b>
Medical School: Calicut Medical College, South India, graduated 1987
Internal Medicine Residency: Washington University in St. Louis, graduated 1995
Gastroenterology fellowship: Washington University in St. Louis, graduated 1999

<b>Training and Career (Residency and Experience)</b>
July 1993-June 1995 Residency in Internal Medicine, Washington University in St. Louis
July 1995-June 1996 Associate Chief Residency in Internal medicine; Washington University in St. Louis
July 1996-June 1999 Fellow in Gastroenterology; Washington University in St. Louis
July 1999 onwards: Faculty in the Division of Gastroenterology, Washington University in St. Louis

<b>Award and Activity</b>
2010 Course Director, 'High resolution esophageal motility' program, St. Louis, March 2010
2010 Elected Fellow, American College of Gastroenterology
2010 Elected to the Best Doctors in America list
2011 Nominated to the Training Subcommittee, American Gastroenterological Association
2011 Elected to the Best Doctors in America list
2012 Chair, Subcommittee for developing a consensus guideline on Esophageal Function Test, American Neurogastroenterology and Motility Society
2012 Nominated as Associate Editor, Digestive Diseases
2012 Chair-elect and Vice Chair, Training Subcommittee, American Gastroenterological Association
2012 'Teacher of the Year 2011-12', Division of Gastroenterology, awarded by gastroenterology fellows
2012 Elected to the Best Doctors in America list
2013-14 Chair, Training Subcommittee, American Gastroenterological Association
2013 Elected to Best Doctors in America list
2013 Member, Rome IV Committee on Functional Esophageal Disorders
2013 Member, Nominating Committee, Esophageal, Gastric and Duodenal Diseases, AGA
2013 Representative from American Society of Neurogastroenterology and Motility for the Milestones project
2014 Elected to Best Doctors in America list
2014 Co-chair, GERD consensus steering committee, Ascona II, 2015, Barcelona 2015, San Francisco 2016
2015 Elected to Best Doctors in America list
2015 Councilor, Neurogastroenterology and Motility Section, AGA
2015 Chair, Abstract Review Committee for Neurogastroenterology and Motility Disorders,



## 2016

2016	Elected to the Council, American Neurogastroenterology and Motility Society
2016	Rome Foundation Fellow, Rome Foundation
2016	Elected to Best Doctors in America list
2016	International Functional Lumen Imaging Probe (FLIP) Working Group
2016	Organizing Committee, OESO 2017 in Geneva
2016	Director, Clinical Training Program, ANMS
2017	Elected to Best Doctors in America list
2017	Nominated as Mentor, AGA Future Leaders Program
2017	Chair, ANMS Task force on Neurogastroenterology and Motility Curriculum
2018	Elected to Best Doctors in America list
2018	Washington University Alumni Award
2018	Appointed as Associate Editor, American Journal of Gastroenterology
2019	Nominated as Mentor, AGA Future Leaders Program
2019	Elected to Best Doctors in America list
2019	World expert in Esophageal Motility Disorders, top 0.1% of world scholars publishing esophageal motility disorders (expertscape.com)
2019	Chair, Abstract Review Committee for Neurogastroenterology and Motility Disorders,
2020	
2020	Nominated as Vice Chair, AGA Future Leaders Program
2020	Elected to Best Doctors in America list
2021	Nominated as a Board Member, American Foregut Society
2021	Nominated as a Member of the ROME V Esophageal Disorders Subcommittee

## Research Interests

Benign Esophageal Disease, including gastroesophageal reflux disease, esophageal motility disorders, functional esophageal disorders, esophageal investigative procedures (high resolution manometry, ambulatory reflux monitoring with wireless and catheter based pH and pH-impedance, functional lumen imaging probe), evaluation of the symptomatic esophageal patient

## Bibliography: representative publications from the last three years

1. Rogers BD, Shy C, Ramgopal R, Hengehold T, Almuhaideb A, Weaver M, Quader F, Roediger R, Walker T, **Gyawali CP**, Sayuk GS. Patient engagement with interactive text message system improves successful colonoscopy rates in an outpatient endoscopy center. *Dig Dis* 2021;39:399-406.
2. Sifrim D, Roman S, Savarino E, **Gyawali CP**, and the International Working Group on Normal Values on Impedance-pH Monitoring. Normal values and regional differences in esophageal impedance-pH metrics: A consensus analysis of impedance-pH metrics studies from around the world. *Gut* 2020;gutjnl-2020-322627.
3. Rogers BD, Rengarajan A, Abrahao L, Bhatia S, Bor S, Carlson DA, Cisternas D, Gonlachanvit S, Hani A, Hayat J, Kawamura O, Lee YY, Leguizamo AM, Pauwels A, Perez de la Serna J, Ramos RI, Remes-Troche JM, Roman S, Savarino E, Serra J, Sifrim D, Tolone S, Wong Z, Zerbib F, Pandolfino J, **Gyawali CP**. Esophagogastric junction morphology and contractile integral on high-resolution



manometry in asymptomatic healthy volunteers: an international multicenter study. *Neurogastroenterol Motil* 2021;33:e14009.

4. Hengehold T, Rogers B, Quader F, **Gyawali CP**. Biopsy forceps disruption paired with bougie dilation of esophageal strictures lengthens time to repeat intervention. *Dis Esophagus* 2021;34:doaa113.
5. **Gyawali CP**, Baker JR, Moshiree B, Rao S, Neshatian L, Nguyen L, Chey WD, Saad R, Garza JM, Waseem S, Khan AR, Pandolfino JE. Coronavirus testing prior to motility laboratory procedures: response to Richter and Vaezi. *Am J Gastroenterol* 2021;116:214-215.
6. Lei WY, Liu TT, Wang JH, Yi CH, Hung JS, Wong MW, **Gyawali CP**, Chen CL. Impact of ineffective esophageal motility on secondary peristalsis: studies with high resolution manometry. *Neurogastroenterol Motil* 2021;33:e14024.
7. Rogers B, Samanta S, Ghobadi K, Patel A, Savarino E, Roman S, Sifrim D, **Gyawali CP**. Artificial intelligence automates and augments baseline impedance measurements from pH-impedance studies in gastroesophageal reflux disease. *J Gastroenterol* 2021;56:34-41.
8. **Gyawali CP**, Sonu I, Becker L, Sarosiek J. The esophageal mucosal barrier in health and disease: mucosal pathophysiology and protective mechanisms. *Ann NY Acad Sci* 2020;1482:49-60.
9. Ribolsi M, Savarino E, Rogers B, Rengarajan A, Coletta MD, Ghisa M, Cicala M, **Gyawali CP**. Patients with definite and inconclusive evidence of reflux according to Lyon Consensus display similar motility and esophagogastric junction characteristics. *J Neurogastroenterol Motil* 2021;27:565-73.
10. Rogers BD, **Gyawali CP**. Evaluation of the esophagogastric junction on high resolution manometry. *J Clin Gastroenterol* 2021;55(2):e8-e18.
11. Rengarajan A, Pomerat M, Zerbib F, **Gyawali CP**. Overlap of functional heartburn and reflux hypersensitivity with proven gastroesophageal reflux disease. *Neurogastroenterol Motil* 2021;33:e14056.
12. DeLay K, Pandolfino JE, Roman S, **Gyawali CP**, Savarino E, Tye M, Kaizer A, Yadlapati R. [Diagnostic yield and reliability of post-prandial high-resolution manometry and impedance-pH for detecting rumination and supragastric belching in PPI non-responders.](#) *Neurogastroenterol Motil*. 2021 Mar 9:e14106.
13. Yadlapati R, Kahrilas PJ, Fox MR, Bredenoord AJ, **Gyawali CP**, Roman S, Babaei A, Mittal RK, Rommel N, Savarino E, Sifrim D, Smout A, Vaezi MF, Zerbib F, Akiyama J, Bhatia S, Bor S, Carlson DA, Chen JW, Cisternas D, Cock C, Coss-Adame E, de Bortoli N, Defilippi C, Fass R, Ghoshal UC, Gonlachanvit S, Hani A, Hebbard GS, Wook Jung K, Katz P, Katzka DA, Khan A, Kohn GP, Lazarescu A, Lenglinger J, Mittal SK, Omari T, Park MI, Penagini R, Pohl D, Richter JE, Serra J, Sweis R, Tack J, Tatum RP, Tutuian R, Vela MF, Wong RK, Wu JC, Xiao Y, Pandolfino JE. Esophageal motility disorders on high resolution manometry: Chicago Classification 4.0. *Neurogastroenterol Motil* 2021;33:e14058.
14. Rogers BD, Cisternas D, Rengarajan A, Marin I, Abrahao L, Hani A, Lequizamo AM, Remes-Troche JM, Perez de la Serna J, Ruiz de Leon A, Zerbib F, Serra J, **Gyawali CP**. Breaks in



- peristaltic integrity predict abnormal esophageal bolus clearance better than contraction vigor or residual pressure at the esophagogastric junction. *Neurogastroenterol Motil* 2022;34:e14141.
15. **Gyawali CP**, Zerbib F, Bhatia S, Cisternas D, Coss-Adame E, Lazarescu A, Pohl D, Yadlapati R, Penagini R, Pandolfino J. Chicago Classification update (v4.0): Technical review of diagnostic criteria for ineffective esophageal motility and absent contractility. *Neurogastroenterol Motil* 2021;33:e14134.
  16. Rogers BD, Rogers BD, Frazzoni M, Savarino E, Roman S, Sifrim D, **Gyawali CP**. Episode-level characteristics: How experienced reviewers differentiate true reflux from artifact on pH-impedance studies. *Neurogastroenterol Motil* 2022;34:e14153.
  17. Wong MW, Liu TT, Yi CH, Lei WY, Hung JS, Omari T, Cock C, Liang SW, **Gyawali CP**, Chen CL. Analysis of contractile segment impedance during straight leg raise maneuver using high resolution impedance manometry increases diagnostic yield in reflux disease. *Neurogastroenterol Motil* 2022;34:e14135.
  18. Kamal AN, Kathpalia P, Otaki F, Bredenoord AJ, Castell DO, Clarke JO, Falk GW, Fass R, **Gyawali CP**, Kahrilas PJ, Katz PO, Katzka DA, Pandolfino JE, Penagini R, Richter JE, Roman S, Savarino E, Triadafilopoulos G, Vaezi MF, Vela MF, Leiman DA. Development of quality indicators for the diagnosis and management of achalasia. *Neurogastroenterol Motil* 2021;33:e14118.
  19. **Gyawali CP**. The value of reflux monitoring: The old and the new for the diagnosis of assessment of GERD. *Foregut* 2021;1:124-131.
  20. Rogers BD, **Gyawali CP**. Post-reflux swallow induced peristaltic wave in eosinophilic esophagitis: More questions than answers. *Aliment Pharmacol Ther* 2021;54:188-189
  21. Carlson DA, Baumann AJ, Prescott JE, Donnan EN, Yadlapati R, Khan A, **Gyawali CP**, Kou W, Kahrilas PJ, Pandolfino JE. Validation of secondary peristalsis classification using FLIP panometry in 741 subjects undergoing manometry. *Neurogastroenterol Motil* 2022;34:e14192.
  22. Rogers BD, Bennett M, Hobbs P, Eckhouse SR, Eagon JC, **Gyawali CP**. Esophageal physiologic testing of obese subjects as part of bariatric surgery planning. *Foregut* 2021;doi:10.1177/26345161211027555.
  23. **Gyawali CP**, Tutuian R, Zerbib F, Rogers BD, Frazzoni M, Roman S, Savarino E, de Bortoli N, Vela MF, Sifrim D. Value of pH impedance monitoring performed 'on' BID proton pump inhibitor therapy to identify need for escalation of reflux management. *Gastroenterology* 2021;161:1412-22.
  24. **Gyawali CP**, Penagini R. Clinical usefulness of esophageal high resolution manometry and adjunctive tests: an update. *Dig Liver Dis* 2021;53:1373-1380.
  25. Wong MW, Liu TT, Yi CH, Lei WY, Hung JS, Cock C, Omari T, **Gyawali CP**, Liang SW, Lin S, Chen CL. Oesophageal hypervigilance and visceral anxiety relate to reflux symptom severity and psychological distress but not to acid reflux parameters. *Aliment Pharmacol Ther* 2021;54:923-30.
  26. Rogers BD, **Gyawali CP**. Making sense of non-achalasia esophageal motor disorders. *Gastroenterol Clin North Am* 2021;50:885-903.

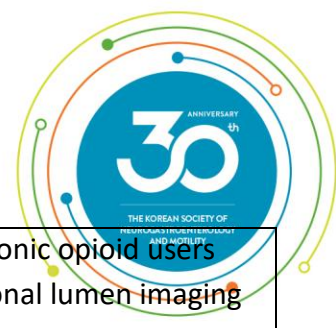




27. **Gyawali CP**, Kahrilas PJ. A short history of high resolution esophageal manometry. *Dysphagia* 2021; doi: 10.1007/s00455-021-10372-7.
28. Hengehold T, Rogers B, **Gyawali CP**. Imperfect high-resolution manometry studies: prevalence and predictive factors. *Neurogastroenterol Motil* 2021;e14273 (in press).
29. Lei WY, **Gyawali CP**, Chang WC, Roman S, Wong MW, Yi CH, Liu TT, Hung JS, Liang SW, Chen CL. Application of a novel straight leg raise test during high-resolution manometry can predict esophageal contractile reserve in patients with gastroesophageal reflux disease. *Neurogastroenterol Motil* 2021;33:e13996.
30. Leiman D, Ravi K, Freedberg D, **Gyawali CP**. Proton pump inhibitory prescribing and monitoring patterns among gastroenterology practitioners. *J Clin Gastroenterol* 2021; doi: 10.1097/MCG.0000000000001623
31. Carlson DA, **Gyawali CP**, Khan A, Yadlapati R, Chen J, Chokshi RV, Clarke JO, Garza JM, Jain AS, Katz P, Konda V, Lynch K, Schnoll-Sussman FH, Spechler SJ, Vela MF, Prescott JE, Baumann AJ, Donnan EN, Kou W, Kahrilas PJ, Pandolfino JE. Classifying esophageal motility by FLIP panometry: A study of 722 subjects with manometry. *Am J Gastroenterol* 2021;116:2357-66.
32. Zhuo J, Triadafilopoulos G, Bredenoord AJ, Clarke JO, Fass R, **Gyawali CP**, Hawn M, Hwang JH, Kahrilas PJ, Katzka DA, Low D, Massey BT, Patel D, Penagini R, Roman S, Savarino E, Smout AJ, Swanstrom L, Tatum R, Vela MF, Zaninotto G, Kamal AN. Development of a preliminary question prompt list as a communication tool for adults with achalasia: a modified Delphi study. *J Clin Gastroenterol* 2022; (in press).
33. Lacy BE, Tack J, **Gyawali CP**. AGA Clinical Practice Update on Management of Medically Refractory Gastroparesis. *Clin Gastroenterol Hepatol* 2022;20:491-500.
34. Kamal A, Achkar E Carlson D, Clarke J, Fass R, **Gyawali CP**, Katzka DA, Patel D, Penagini R, Rezaie A, Roman S, Savarino E, Shaheen NJ, Triadafilopoulos G. Question prompt list as a communication tool for adults with gastroesophageal reflux disease: incorporation of patients' perspectives. *J Clin Gastroenterol* 2022 (in press).
35. Hurtt E, Rogers BD, Richards C, **Gyawali CP**. The clinical value of psycho-gastroenterological interventions for functional esophageal symptoms. *Neurogastroenterol Motil* 2022;e14315 (in press).
36. Yadlapati R, **Gyawali CP**, Pandolfino JE. Personalized approach to evaluation and management of gastroesophageal reflux disease. *Clin Gastroenterol Hepatol* 2022; 20(5):984-994.
37. Greenan G, Rogers BD, Sifrim D, **Gyawali CP**. Solid bolus swallows during high resolution manometry complement multiple rapid swallows in predicting symptoms following antireflux surgery. *Neurogastroenterol Motil* 2022;e14336 (in press).
38. Penagini R, de Bortoli N, Savarino E, Arsie E, Tolone S, Greenan G, Visaggi P, Maniero D, Mauro A, Consonni D, **Gyawali CP**. Rapid drink challenge during high resolution manometry for evaluation of esophageal emptying in treated achalasia. *Clin Gastroenterol Hepatol* 2022; (in press).
39. Sawada A, **Gyawali CP**. Lyon Consensus metrics: Towards personalized diagnosis of non-erosive reflux disease. *Aliment Pharmacol Ther* 2022; (in press).



40. Kamal A, Triadafilopoulos G, **Gyawali CP**, Nguyen L, Sayuk G, Azagury D, Tatum R, Clarke JO. A model for multi-disciplinary, multi-institutional virtual learning: the Stanford esophageal virtual collaborative conference on benign esophageal diseases. *Neurogastroenterol Motil* 2022 (in press).
41. Kamal A, Harris KB, Sarvapalli S, Kou L, Sayuk GS, **Gyawali CP**, Gabbard S. Nutrient drink test to assess gastric accommodation in cyclic vomiting syndrome. *J Neurogastroenterol Motil* 2022 (in press).
42. Savarino E, Bhatia S, Roman S, Sifrim D, Tack J, Thompson SK, **Gyawali CP**. Achalasia. *Nat Rev Dis Primers* 2022; 8:28.
43. Sawada A, Rogers B, Visaggi P, de Bortoli N, **Gyawali CP**, Sifrim D. Effect of hiatus hernia on reflux patterns and mucosal integrity in patients with non-erosive reflux disease. *Neurogastroenterol Motil* 2022 (in press).
44. Visaggi P, Ghisa M, Del Corso G, Baiano Svizzero F, Mariani L, Tolone S, Frazzoni M, Buda A, Bellini M, Savarino V, Penagini R, **Gyawali CP**, Savarino EV, de Bortoli N. Chicago classification v4.0 protocol improves specificity and accuracy of diagnosis of oesophagogastric junction outflow obstruction. *Aliment Pharmacol Ther* 2022;56:606-13.
45. Muthusamy VR, Wani S, **Gyawali CP**, Komanduri S, CGIT Barrett's Esophagus Consensus Conference Participants. AGA Clinical Practice Update on new technology and innovation for surveillance and screening in Barrett's esophagus: expert review. *Clin Gastroenterol Hepatol* 2022: in press.
46. Yadlapati R, Gawron AJ, **Gyawali CP**, Chen J, Clarke J, Fass R, Jain A, Lynch K, Khan A, Katz PO, Katzka DA, Richter J, Schnoll-Sussman F, Spechler SJ, Vaezi MF, Vela M, Pandolfino JE. Clinical role of ambulatory reflux monitoring in PPI non-responders. *Aliment Pharmacol Ther* 2022; in press.
47. Yadlapati R, **Gyawali CP**, Masihi M, Carlson DA, Kahrilas PJ, Nix BD, Jain A, Triggs JR, Vaezi MF, Kia L, Kaizer A, Pandolfino JE. Optimal wireless reflux monitoring metrics to predict discontinuation of proton pump inhibitor therapy. *Am J Gastroenterol* 2022; in press.
48. Siboni S, Bonavina L, Rogers BD, Egan C, Savarino E, **Gyawali CP**, DeMeester TR. Effect of increased intra-abdominal pressure on the esophagogastric junction: A systematic review. *J Clin Gastroenterol* 2022: in press.
49. Siboni S, Kristo I, Rogers BD, De Bortoli N, Hobson A, Louie B, Lee YY, Tee V, Tolone S, Marabotto E, Visaggi P, Haworth J, Ivy M, Greenan G, Facchini C, Masuda T, Yano F, Perry K, Balasubramanian G, Theodorou D, Triantafyllou T, Cusmai L, Boveri S, Schoppmann SF, **Gyawali CP**, Bonavina L. [Improving the diagnostic yield of high-resolution esophageal manometry for GERD: the "straight leg-raise" international study.](#) *Clin Gastroenterol Hepatol.* 2022 (in press).
50. Lei WY, Liang SW, Omari T, Chang WC, Wong MW, Hung JS, Yi CH, Liu TT, Lin L, **Gyawali CP**, Chen CL. [Transient Hiatal Separation During Straight Leg Raise Can Predict Reflux Burden in Gastroesophageal Reflux Disease Patients With Ineffective Esophageal Motility.](#) *J Neurogastroenterol Motil.* 2022 Oct 30;28(4):589-598.
51. Patel P, Hobbs P, Rogers BD, Bennett M, Eckhouse SR, Eagon JC, **Gyawali CP**. Reflux symptoms increase following sleeve gastrectomy despite triage of symptomatic patients to Roux-en-Y gastric bypass. *J Clin Gastroenterol* 2022 (in press).



52. Patel D, Khodadadi A, Jadcherla A, Rengarajan A, Rogers BD, **Gyawali CP**. Chronic opioid users with dysphagia are indistinguishable from symptomatic non-users on functional lumen imaging probe evaluation. *Neurogastroenterol Motil* 2022 (in press).
53. Visaggi P, Del Corso G, **Gyawali CP**, Ghisa M, Svizzero FB, Donati DS, Venturini A, Savarino V, Penagini R, Zeki S, Bellini M, Savarino EV, de Bortoli N. Ambulatory pH-impedance findings confirm that grade B esophagitis provides objective diagnosis of gastroesophageal reflux disease. *Am J Gastroenterol* 2023 (in press).
54. Wong MW, Hsiao SH, Wang JH, Yi CH, Liu TT, Lei WY, Hung JS, Liang SW, Lin L, **Gyawali CP**, Chen PR, Chen CL. Esophageal hypervigilance and visceral anxiety contribute to symptom severity of laryngopharyngeal reflux. *Am J Gastroenterol* 2023 (in press).
55. Patel A, **Gyawali CP**. The role of magnetic sphincter augmentation in the gastroesophageal reflux disease treatment pathway: the gastroenterology perspective. *Dis Esophagus* 2023 (in press).