

**Richard H. Sandler, M.D.**

**CURRICULUM VITAE**

November 16, 2025

Gastroenterology, Hepatology and Nutrition  
Nemours Children's Hospital  
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**Appointments and Founding Directorships**

2012-present	Gastroenterology, Hepatology and Nutrition, Nemours Children's Hospital, Orlando, FL
2013-present	Professor of Pediatrics, and Professor of Mechanical and Aerospace Engineering, University of Central Florida
2012-2014	Vice Chairman of Pediatrics, Nemours Children's Hospital
2012-2014	Founding Chief, Division of Gastroenterology, Hepatology and Nutrition, Nemours Children's Hospital
1990- 2012	Founding Director, Pediatric Gastroenterology, Hepatology and Nutrition Rush Children's Hospital, Rush University Medical Center
1992- 2012	Director, Biomedical Acoustics Research Group, Rush University
2004-2012	Associate Chairman for Research, Department of Pediatrics, Rush Children's Hospital, Rush University Medical Center
2002-2012	Associate Professor of Pediatrics, Rush Children's Hospital
2005-2012	Co-Medical Director, Pediatric University Specialists Ambulatory Care Center, Rush University Medical Center
1991-2012	Director, Pediatric Nutrition Support Service, Rush Children's Hospital
1990-2012	Senior Attending, Rush University Medical Center
1991-2012	Senior Medical Advisor, Chair of Medical Advisory Committee and Volunteer Physician, Misericordia Home (serving over 500 residents with developmental disabilities)

## **Biomedical Engineering Appointment**

2014-present: Professor of Mechanical (Biomedical Engineering), University of Central Florida, Orlando, FL  
2000-2012: Adjunct Associate Professor, Department of Biomedical Engineering, University of Illinois at Chicago

## **Personal**

Married: Irene Doyle Sandler  
Children: Justin, Joshua, and Zachary  
Birth: New York City, NY

## **EDUCATION**

1. 1987-1990. Clinical and Research Fellow, Pediatric Gastroenterology and Nutrition. Children's Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA.
2. 1988-1990. Research Fellow, Clinical Research Center, Whitaker College, Massachusetts Institute of Technology, Cambridge, MA.
3. 1984-1986. Pediatrics Residency. College of Human Medicine, Michigan State University, East Lansing, MI.
4. 1979-1980. Combined Medicine and Pediatrics Residency (PL-I). College of Human Medicine, Michigan State University, East Lansing, MI.
5. 1975-1979. College of Human Medicine, Michigan State University, East Lansing, MI. Doctor of Medicine, March 1979.
6. 1974-1975. College of Arts and Sciences, University of Michigan, Ann Arbor, MI. Bachelor of General Studies, June 1975.
7. 1967-1970. College of Engineering, University of Michigan, Ann Arbor, MI. Nuclear engineering major, with a minor in philosophy.
8. 1963-1967. Brooklyn Technical High School, NYC, NY

## **EMPLOYMENT EXPERIENCE (Medical)**

1. June 2012-Present. Division of Gastroenterology, Hepatology and Nutrition, Nemours Children's Hospital, Orlando, FL

2. July, 1990-2012. Associate Chairman for Research, Department of Pediatrics; Director, Section of Pediatric Gastroenterology, Hepatology and Nutrition, Rush University Medical Center, Rush Medical College, Chicago.
3. 2004-2012. Attending Pediatric Gastroenterologist, Stroeger Cook County Hospital, Chicago.
4. 2005-2007. Coordinator of Pediatric Gastroenterology Services, University of Illinois at Chicago Medical Center, and Stroeger Cook County Hospital, Chicago, IL.
5. July, 1987- June, 1990. Assistant in Medicine and Instructor, Division of Gastroenterology and Nutrition, The Children's Hospital and Massachusetts General Hospital, Harvard Medical School, Boston, MA. Positions included:
  - 1989-1990. Acting Director, Home Parenteral Nutrition Program, The Children's Hospital, Harvard Medical School, Boston, MA.
  - 1988-1990. Medical Director, Judge Baker (inpatient psychiatric) Unit, Children's Hospital, Harvard Medical School, Boston, MA.
6. 1987 (April-June). Attending Physician, Martha Eliot Community Health Center, Children's Hospital, Harvard Medical School, Boston, MA.
7. July, 1984 - March, 1987. Pediatrics Resident and Clinical Instructor, Department of Pediatrics and Human Development, College of Human Medicine, Michigan State University, East Lansing, MI.
8. July, 1981- June, 1983. Attending Physician, Emergency Department, Bay Medical Center, Bay City, MI.
9. 1981 (May-June). Attending Physician, Surgery and Outpatient Departments, Tansen Hospital, Tansen, Nepal.
10. 1981 (April). Attending Physician, Department of Medicine, Shanta Bowen Hospital, Kathmandu, Nepal.
11. November, 1980 - March, 1981. Medical Director, Outpatient Department, Khao-I-Dang Cambodian Refugee Camp, Thailand.
12. July, 1980 – November 1980. Attending Physician, Pediatrics Ward, Khao-I-Dang Hospital, Khao-I-Dang Cambodian Refugee Camp, Thailand.
13. July, 1979 – June, 1980. Pediatrics and Medicine Resident, and Clinical Instructor, Department of Pediatrics and Human Development, College of Human Medicine, Michigan State University, East Lansing, MI.

## **EMPLOYMENT EXPERIENCE (Other)**

1. 1997-present. President, Biomedical Acoustics Research Company, Orlando, FL.
2. 1974-1975. Consultant, Energy Research Associates, Washington, D.C.
3. 1973-1974. Energy consultant and staff for Ralph Nader, Washington, D.C.
4. 1972-1973. Team Director, Ralph Nader's Congress Project, Washington, D.C.
5. 1970-1972. Professional Staff, Environment Subcommittee, Senate Commerce Committee, United States Senate, Washington, D.C., (Senator Philip A. Hart, Chairman)
6. 1967-1970. Research Assistant, Phoenix Memorial Nuclear Laboratory, University of Michigan, Ann Arbor, MI.

## **PATENTS**

1. Mansy HA, Sandler RH. Subsonic vibrational detection for diagnosis of cardiac dysfunction. US Patent No. 8,790,264, issued July 29, 2014.
2. Sandler RH, Mansy HA. Acoustic Detection of Endotracheal Tube Location. US Patent 8394031, issued March 12<sup>th</sup>, 2013.
3. Sandler RH, Mansy, HA. Acoustic detection of vascular conditions. US Patent # 7,527,597, issued May 5, 2009.
4. Mansy HA, Sandler RH. Acoustic detection of gastric motility dysfunction. US Patent # 6840913, issued 1/11/05.
5. Sandler RH, Mansy HA. Methods and apparatus for detection of vascular graft patency using vibration analysis. US Patent # 6,780,159, issued 8/24/04.
6. Sandler RH, Mansy HA. Methods and apparatus for characterizing gastrointestinal sounds. US Patent # 6,776,766, issued 8/17/04.
7. Mansy HA, Sandler RH. Method and apparatus for detection of air cavities in a body. US Patent # 6,595,928, issued 7/22/03.
8. Sandler RH, Mansy HA. Human controlled towable device for water surface and subsurface operation. US Patent # 6,575,114, issued 6/10/03

9. Mansy HA, Sandler RH. Acoustic Detection of Respiratory Conditions. US Patent #6443907, issued 9/3/02.
10. Sandler RH, Mansy HA. Methods and apparatus for detection of gastrointestinal conditions utilizing computerized analysis of gastrointestinal sounds. US Patent # 6425874, issued 7/30/02.
11. Sandler RH, Mansy HA. Methods and apparatus for characterizing gastrointestinal sounds. US Patent # 6287266, issued 9/11/01.
12. Sandler RH, Mansy HA. Methods and apparatus for characterizing gastrointestinal sounds. US Patent # 6056703, issued 5/20/00.
13. Sandler RH, Mansy HA. Sensor and Sensor Assemblies for Monitoring Biological Sounds and Electric Potentials. US Patent Application # 10/218,298. (Pending)

## **RESEARCH GRANT SUPPORT**

Total \$6.330 million awarded

**Federal Funding** (Total = \$5.950 million awarded):

1. NATIONAL HEART, LUNG, AND BLOOD INSTITUTE Grant Number: 2R44HL099053-02A1 FAIN: R44HL099053 Principal Investigator; A device for monitoring heart failure patients. Project Period: 08/17/2011 – 12/31/2021; awarded: \$1,337,000.
2. NIH R43, Co-I, Bedside monitoring of endotracheal tube position. April 2012-September 2014. NIH/NIHLBI, HL112374-01, \$330,000.
3. NIH RO1, Co-I, PI of Rush subcontract. Audible Human Project. 2010-2014, subcontract. R01EB012142-01. \$600,000 Rush subcontract over four years (\$1,350,000 total grant).
4. NIH R43, Co-I, Subsonic metric for assessment of heart failure. 2010-2013. R43 HL099053-01A1. August 2011-July 2013: \$335,000.
5. NIH R44, Co-I. NIDDK R44DK059685-03. Rapid Assessment of Vascular Graft Patency. 5/06-4/10: \$1,180,000.
6. NIH R21/R33, Co-I. NHLBI R21EB003286-01. Breath sound origin and use for pneumothorax diagnosis. 8/03-7/06: \$1,400,000.
7. NIH RO3, Co-I. 1RO3EB008373-01A1. Audible human project. 8/07-7/09, \$100,000.

8. NIH SBIR, Co-I. NHLBI 1 R44 HL61108-01. Phase II proposal: Portable device for instant detection of pneumothorax. 5/01-4/04: \$750,000.
9. NIH SBIR, Co-I. NHLBI 1 R43 HL61108-01. Portable device for instant detection of pneumothorax. 10/98-3/00: \$100,000.
10. NIH SBIR, Co-I. NIDDK 1 R43 DK55945-01, Rapid detection of delayed gastric emptying. 9/99-3/00: \$100,000.
11. NIH R21, Co-I (PI of Rush subcontract) NIH R21. Theoretical and experimental investigation of biologic tissue behavior with low frequency vibrations. 11/99-10/03: \$450,000, \$150,000 for Rush subcontract.
12. NIH SBIR, PI. NIDDK 1 R43. Rapid patency assessment of dialysis vascular access. \$100,000, 8/6/02-8/5/03.
13. DOD Co-I (PI of Rush subcontract). Acoustic paradigm for rapid assessment of thoracic trauma. \$650,000, Rush subcontract = \$140,000 (submitted)

**Other Competitive**, peer reviewed research funding (total = \$381,184 awarded):

1. College of Medicine, University of Central Florida, Richard Sandler, PI, Tympanic Membrane Oscillation as an Indicator of Intracranial Pressure. 2017-2018; \$10,000.
2. Whitaker Foundation, Co-I: RG 97-0113, Feasibility and analysis of a new method for the diagnosis of intestinal perforation using low frequency vibro-acoustic waves  
Detection of free cavity air using acoustic methods. 12/97-11/00: \$210,000.
3. Cure Autism Now Foundation, PI: Investigation of a possible gut-brain connection in a subset of children with pervasive developmental delay. \$30,000.
4. Whitaker Foundation, Co-I (\$80,000). New Paradigms for pneumothorax diagnosis. 12/01-12/02.
5. Whitaker Foundation, Co-I (PI of Rush Subcontract for \$51,840). New Paradigms in acute lung injury diagnosis.
6. University Committee on Research, Rush University, PI: Computerized gastrointestinal sound analysis in subjects with bowel obstruction. 1996: \$10,000.

**Industry Drug Trial** (Total = \$11,306)

1. Glaxo-Wellcome, PI (for Rush site). Multicenter RCT of alosetron in non-constipated adolescents with irritable bowel syndrome. March, 2000: \$11,306. Discontinued August 2000 after medication withdrawn from the market.

## MEDICAL PUBLICATIONS

(Total = 196; 47 as first author, 69 as senior author)

### Book

Sandler RH, Jones TC (eds). Medical Care of Refugees. New York City, Oxford University Press, 1987, pp 413.

(A review of this book appeared in the New England Journal of Medicine: Gilman SC. Medical Care of Refugees. N Engl J Med 1988;319:1028)

### Peer Reviewed Journal Publications (57; First Author 6, Senior Author 23)

1. Dhar, Sandler RH. AI-based approach for heart failure readmission prediction Using SCG, ECG, and GSR signals. Manuscript reference: PME-106313.R2. Accepted for publication: Physiological Measurement, Oct 2025.
2. Ahdy S, Sandler RH, Hill E, Mansy HA. Non-invasive Assessment of Electrical and Mechanical Characteristics of DMD Muscles. Vibration 2025 pending
3. Dhar R, Darwish SE, Darwish SA, Sandler RH, Mansy HA. Effect of respiration and exercise on seismocardiographic signals. Comp Biol Med 2025;185(Feb):109600
4. Jeong Y, Jazrawi T, Mansy HA, Sandler RH, Price CT, Castaneda P. A Novel Low-Cost Acoustic Screening Method for Early Detection of Developmental Dysplasia of the Hip in Infants. J Pediatr Orthopedics 2023
5. Gallagher R, Coelho R, Violette PD, ... Sandler RH. Response to Medical Assistance in Dying, Palliative Care, Safety, and Structural Vulnerability, 2023.
6. Sandler RH. Fatherlessness Begins Prenatally: A Scoping Review. Issues Law Med 2022;37:237-9
7. Dhar R, Sandler RH, Manwaring K, Kostick N, Mansy HA, Noninvasive Detection of Elevated ICP Using Spontaneous Tympanic Membrane Pulsation, Scientific Reports, Nature, (accepted)
8. Kostick N, Manwaring K, Dhar R, Sandler R, Mansy HA. The "Brain Stethoscope": A Non-Invasive Method for Detecting Elevated Intracranial Pressure. Cureus 13(3): e13865. 2021, DOI 10.7759/cureus.13865
9. Palnitkar H, Henry BM, Dai Z, Peng Y, Mansy HA, Sandler RH, Royston, TJ. Sound transmission in human thorax through airway insonification: an experimental and computational study with diagnostic applications. Medical & Biological Engineering & Computing, 58(10), 2239-2258, 2020

10. Taebi A, Sandler RH, Kakavand B, Mansy HA. Extraction of peak velocity profiles from Doppler echocardiography using image processing. *Bioengineering* 6, 64-74; doi:10.3390/bioengineering6030064, 2019
11. Taebi A, Sandler RH, Kakavand B, Mansy HA. Extraction of peak velocity profiles from doppler echocardiography using image processing. *Bioengineering* 2019, 6(3), 64; <https://doi.org/10.3390/bioengineering6030064>
12. Taebi A, Solar BE, Bomar AJ, Sandler RH, Mansy HA. Recent advances in seismocardiography. *Vibration* 2019;2(1):64-86.
13. Taebi A, Sandler RH, Kakavand B, Mansy HA. Automatic image-based extraction of peak velocity profiles from Doppler echocardiography. 2018 (accepted: IEEE)
14. Khalili F, Gamage PPT, Sandler RH, Mansy HA. Adverse hemodynamic conditions associated with mechanical heart valve leaflet immobility. *Bioengineering* 2018;5:74-90.
15. Mansy HA, Balk RA, Warren WH, Royston TJ, Dai Z, Peng Y, Sandler RH. Pneumothorax effects on pulmonary acoustic transmission. *J Appl Phys* 2015;119:250-57.
16. Peng Y, Dai Z, Mansy HA, Henry B, Sandler RH, Balk RA, Royston TJ. Sound transmission in porcine thorax through airway insonification. *Med Biol Engin Comp* 2015;1-15.
17. Mansy HA, Balk RA, Warren WH, Royston TJ, Dai Z, Peng Y, Sandler RH. Pneumothorax effects on pulmonary acoustic transmission. *J Appl Phys* 2015;119:250-57.
18. Dai Z, Peng Y, Mansy HA, Sandler RH, Royston TR. A Model of lung parenchyma stress relaxation using fractional viscoelasticity. *Med Engin Phys* 2015;37:752-758.
19. Dai Z, Peng Y, Mansy HA, Sandler RH, Royston TR. Experimental and computational studies of sound transmission in a branching airway network embedded in a compliant viscoelastic medium. *J Sound Vibr* 2015;339:215-29.
20. Henry B, Dai Z, Peng Y, Mansy HA, Sandler RH, Royston TJ. Investigation of pulmonary acoustic simulation: Comparing airway model generation techniques. *Proceedings of SPIE Biomed Appl Molecular Struct Funct Imag*, 2014;180-8, San Diego CA.

21. Dai Z, Peng Y, Mansy HA, Sandler RH, Royston TR. Comparison of poroviscoelastic models for sound and vibration in the lungs. *ASME J Vibr Acous* 2014;136(5), 051012 (published online)
22. Dai Z, Peng Y, Henry B, Mansy HA, Sandler RH, Royston TJ. A Comprehensive computational model of sound transmission through the porcine lung. *J Acous Soc Am* 2014;136:1419-29.
23. Peng Y, Dai Z, Mansy HA, Sandler RH, Royston TR. Sound transmission in the chest under surface excitation: An experimental and computational study with diagnostic applications. *Med Biol Engin Comp* 2014;52:695-706.
24. Mansy HA, Grahe J, Royston TJ, Sandler RH. Investigating a compact phantom and setup for testing body sound transducers *Comp Biol Med*, 41:361-6, 2011
25. Whittier W, Mansy HA, Groeh J, Sandler, RH. Comparison of hemodialysis access flow measurements using flow dilution and in-line dialyisant. *Am Soc Artificial Organs J* 2009;55:369-72.
26. Mansy HA, Grahe J, Elke DA, Sandler RH, Design of a sound source phantom with uniform surface signal. *Proc IEEE conference TIC-Science and technology for humanity: 987-990; 2009*
27. Kirschenbaum DS, Nieman P, Sandler RH, Brady TJ. Tertiary Care – Immersion program perspective. *Obesity Management Feb, 2000:17-21.*
28. Mansy HA, Grahe J, Sandler RH. Elastic properties of synthetic materials for soft tissue modeling. *Phys Med Biol* 2008; 53:2115-30
29. Acikgoz S, Ozer M, Royston T, Mansy H, Sandler R. Experimental and computational models for simulating sound propagation within the lungs. *J Vibration Acoustics* 2008;130:210-20
30. Ozer M, Acikgoz S, Royston T, Mansy H, Sandler R. Boundary element model for simulating sound propagation and source localization within the lungs. *J Acoustical Soc Am* 2007; 12:657-71
31. O'Connor CJ, Mansy HA, Balk RA, Tuman KJ, Sandler RH. Identification of endotracheal tube malpositions using computerized analysis of breath sounds via electronic stethoscopes. *Ann Anesthesia* 2005;101:735-9
32. Mansy HA, O'Connor CJ, Balk RA, Sandler RH. Breath sound changes associated with malpositioned endotracheal tubes. *Med Biol Engin Computing* 2005; 43:206-11

33. Mansy HA, Hoxie SJ, Patel NH, Sandler RH. Computerized analysis of auscultory sounds with vascular patency of hemodialysis access. *Med Biol Engin Computing* 2005;43:56-62
34. Mansy HA, Royston TJ, Balk RA, Sandler RH. Pneumothorax detection using pulmonary acoustic transmission measurements. *Med Biol Engin Computing* 2002 Sep;40(5):520-5
35. Mansy HA, Royston TJ, Balk RA, Sandler RH. Pneumothorax detection using computerized analysis of breath sounds. *Med Biol Engin Computing* 2002 Sep;40(5):526-32
36. Mansy HA, Royston TJ, Sandler RH. The use of abdominal percussion for pneumoperitoneum detection. *Med Biol Engineer Comp* 2002;40:439-46.
37. Finegold SM, Molitoris D, Song Y, Liu C, Vaisanon ML, Bolte E, McTeague M, Sandler R, Wexler H, Marlowe EM, Collins MD, Lawson PA, Summanon P, Baysallar M, Tomzynski TJ, Read E, Johnson E, Rolfe R, Nasir P, Shah H, Haake DA, Manning P, Kaul A. Gastrointestinal microflora studies in late-onset autism. *Clin Inf Ds* 2002;35S6-17.
38. Royston TJ, Zhang X, Mansy HA, Sandler RH. Modeling sound transmission through the pulmonary system and chest with application to diagnosis of a collapsed lung. *J Acoustical Soc Am* 2002;111:1931-46
39. Mansy HA, Royston TJ, Sandler RH. Acoustic characteristics of air cavities at low audible frequencies with application to pneumoperitoneum detection. *Med Biol Engineer Comp* 2001;39:159-67
40. Assadi FK, Sandler RH, Wong PW, Salem M, Simenauer L. Infantile cystinosis presenting as chronic constipation. *Am J Kidney Dis (Electronic Edition)* 2002;39(6):1-3
41. Zhang X, Royston TJ, Mansy HA, Sandler RH. Radiation impedance of a finite circular piston on a viscoelastic half-space with application to medical diagnosis. *J Acoustical Soc Am* 2001;109:795-802
42. Kong X, Mansy HA, Sandler RH. Multi resolution analysis of gastrointestinal sounds for small bowel obstruction identification. *Med Biol Engineer Comp* 2001;8:7-12
43. Clifton JC II, Sigg T, Burda AM, Leiken JB, Smith CJ, Sandler RH. Acute pediatric lead poisoning: Combined whole bowel irrigation, succimer therapy and endoscopic removal of ingested lead pellets. *Ped Emergency Care* (Accepted)

44. Sandler RH, Bolte EB, Buchanan C, Maxwell A. Antibiotic intervention trial for the treatment of autism. *J Child Neurology* 2000;15:429-35
45. Sandler RH, Bolte ER, Chez MG, Schrifft MJ. Relief of psychiatric symptoms in a patient with Crohn's disease after metronidazole therapy. *Clin Inf Ds* 2000;30:213-214
46. Mansy HA, Sandler RH. Detection and analysis of the gastrointestinal sounds in normal and small bowel obstructed rats. *Med Biol Engineer Comp* 2000;38:42-48.
47. Sandler RH. Managed costs, mismanaged care. *Health Letter* 2000;16:1-2.
48. Royston TJ, Mansy HA, Sandler RH. Excitation and propagation of surface waves on a viscoelastic half-space with application to medical diagnosis. *J Acoustic Soc Am* 1999;106:3678-86.
49. Tomomasa T, Morikawa A, Sandler RH, Mansy HA, Koneko H, Masahiko T, Hyman PE, Itoh Z. Gastrointestinal sounds and migrating motor complex in fasted humans. *Am J Gastroenterology* 1999;94:374-81
50. Mansy HA, Sandler RH. Bowel sound signal enhancement using adaptive filtering. *IEE Engin Med Biology* 1997;16:105-117.
51. Storm HM, Young SL, Sandler RH. Development of pediatric and neonatal parental nutrition order forms. *Nutrition Clin Practice* 1995;10(2):54-59.
52. Forchielli ML, Gura KM, Sandler R, Lo C. Aminosyn PF or Trophamine: Which provides more protection from cholestasis associated with total parenteral nutrition? *J Pediatr Gastroenterology Nutr* 1995;21:374-82.
53. Weinberg GD, Matalon TAS, Bruner MC, Patel SK, Sandler RH. Bleeding stomal varices: Treatment with a transjugular intrahepatic portosystemic shunt in two pediatric patients. *J Vascular Interventional Radiology* 1995;6:233-236.
54. Hoffer F, Sandler RH, Kaplan LC, Mandell VS, Haynie M, Leichner A. Fluoroscopic placement of jejunal feeding tubes. *Pediatr Radiol* 1992;22(4):287-9.
55. Sandler RH, Epstein PR, Cook-Deegan RM, Shukri A. Initial medical assessment of Kurdish refugees in the Turkey-Iraq border region. *JAMA* 1991;266:638-40.
56. Adzick NS, Fisher JH, Winter HS, Sandler RH, Hendren WH. Esophageal adenocarcinoma 20 years after esophageal atresia repair. *J Pediatr Surg* 1989;24:741-44.

57. Sandler RH. Anaphylactic reactions to zomepirac. *Annals of Emergency Medicine* 1985;14:171-74.

### **National Documents Of Reference**

1. Sandler RH. Health hazards associated with ultrasonic diagnostic equipment. Testimony before the U.S. Senate Commerce Committee. Hearings of the 93rd Congress, 1st Session, March 12, 1973, pp 202-17. Government Printing Office, Washington, D.C.
2. Sandler RH, Roth K, McGlone J, Wertz T, Balasubramanian R, Viera J. Impact of the threat of nuclear war on adolescents in a United States mid-western urban school system. In: Solantaus T, Chivian E, Vartanyan M, Chivian S (eds). *The Impact of the Threat of Nuclear War on Children and Adolescents: Research Symposium Proceedings*. Boston, International Physicians for the Prevention of Nuclear War, 1985, pp 181-88.

### **Bioengineering Conference Articles (34; 2 First Author, 14 Senior Author)**

1. Ahdy S, Sandler RH, Monduy M, Baker E, Wells J and Mansy HA, DMD Muscle Characteristics in the Time and Frequency Domain. *IEEE Signal Processing in Medicine and Biology Symposium*, Dec 2022, Philadelphia, PA
2. Dhar R, Darwish S, Darwish S, Sandler RH, Mansy HA, Effects of Exercise on SCG signals in Healthy Subjects. *IEEE Signal Processing in Medicine and Biology Symposium*, Dec 2022, Philadelphia, PA
3. Benwali A, Ferguson QR, Farahat S, Sandler RH, Mansy HA, Utility of Mechanomyography and Surface Electromyography for Non-invasively Evaluate Muscle Fatigue- A pilot study. *IEEE Signal Processing in Medicine and Biology Symposium*, Dec 2022, Philadelphia, PA
4. King D, Voyatzoglou A, Dhar R, Sandler RH, Mansy HA, Audible and Subaudible Components of the First and Second Heart Sounds. *IEEE Signal Processing in Medicine and Biology Symposium*, Dec 2022, Philadelphia, PA
5. Rajkumar D, Sandler RH, Manwaring K, Mansy HA. Noninvasive detection of elevated intracranial pressure using tympanic membrane pulse. *IEEE Sig Proc Med Biol Symp (SPMB)* 2019; 10.1109/SPMB47826.2019.9037864
6. Khalili F, Gamage PT, Sandler RH, Mansy HA. Evaluation of different turbulence models for an internal bounded flow at low reynolds number. *5th Thermal and Fluids Engineering Conference (TFEC)* April 5–8, 2020 New Orleans, LA, USA TFEC-2020-32434
7. Khalili F, Gamage PT, Sandler RH, Mansy HA. Fluid dynamics of bi-leaflet mechanical heart valve leaflets opening and closing phases during systole and diastole. *5th Thermal and Fluids Engineering Conference (TFEC)* April 5–8, 2020 New Orleans, LA, USA TFEC-2020-32433

8. Sandler RH, Azad MK, Rahman B, Taebi A, Gamage P, Raval N, Mentz RJ, Mansy HA. Minimizing seismocardiography variability by accounting for respiratory effects. 23rd Annual Scientific Meeting of the Heart Failure Society of America. Sept, 2019, Chicago, IL
9. Azad MK, Sandler RH, Mansy HA. Comparison of noninvasive methods of detecting respiratory phase and rate, 4<sup>th</sup> Thermal and Fluids Engineering Conference, April 2019, Las Vegas, NV
10. Taebi A, Sandler RH, Kakavand B, Mansy HA. Estimating peak velocity profiles from Doppler echocardiography using digital image processing. IEEE Signal Processing in Medicine and Biology Symposium, Dec 1, 2018, Philadelphia, PA
11. Gamage PT, Azad MK, Taebi A, Sandler RH, Mansy HA. Clustering SCG events using unsupervised machine learning. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
12. Hassan T, McKinney L, Sandler RH, Kassab A, Price P, Moslehy F, Mansy HA. An acoustic approach for detection of developmental dysplasia of the hip. IEEE Signal Processing in Medicine and Biology Symposium (SPMB), 2018 Dec 1, pp 1-6
13. Azad MK, Gamage PT, Taebi A, Sandler RH, Mansy HA. Extraction of respiratory variations from different physiological signals. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
14. Azad MK, Gamage PT, Taebi A, Sandler RH, Mansy HA. A study of day to day and postural variability in seismocardiographic signals. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
15. Hassan T, McKinney L, Sandler RH, Kassab A, Price P, Moslehy F, Mansy HA. An acoustic approach for early screening of developmental dysplasia of the hip. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
16. Taebi A, Sandler RH, Kakavand B, Mansy HA. Estimating peak velocity profiles from Doppler echocardiography using digital Image processing. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
17. Khalili F, Gamage PT, Sandler RH, Mansy HA. Prediction of turbulent shear stresses through dysfunctional bi-leaflet mechanical heart valves using computational fluid dynamics. 3rd Thermal and Fluids Engineering Conference (TFEC). March 4-7, 2018, Fort Lauderdale, FL
18. Taebi A, Sandler RH, Kakavand B, Mansy HA. Seismocardiographic signal timing with myocardial strain. IEEE Signal Proc Med Biol, Dec 2 2017, Philadelphia, PA

19. Mansy HA, Simms L, Condo S, Miranda A, Manwaring K, Sandler RH. Non-invasive measurement of tympanic membrane oscillations, World Summit on Bioengineering, Nov 7-8, 2016 Las Vegas, NV
20. Mansy HA, Azad MK, McMurray B, Henry B, Royston TJ, Sandler RH. Investigating the geometry of pig airways using computed tomography. Proceedings of SPIE Biomedical Applications in Molecular, Structural, and Functional Imaging, Feb 21-26, 2015, Orlando, FL
21. Mansy HA, Azad KA, McMurray B, Henry B, Royston TJ, Sandler RH. Probing the angles and diameters of pig airway branching using computed tomography. BMES conference, Oct 7-10, 2015, Tampa FL
22. Mansy HA, Sandler RH. Using body vibration measurements for monitoring heart conditions. The 20<sup>th</sup> Annual International Conference on Industry, Engineering, and Management Systems. Mar 23-26, 2014, Cocoa Beach, FL.
23. Dai Z, Peng Y, Mansy H, Royston T, Sandler R. Estimation of local viscoelasticity of lungs based on surface waves. International Mechanical Engineering Conference and Exposition, Denver, 2011.
24. Acikgoz S, Ozer MB, Royston TJ, Mansy HA, Sandler RH. Experimental and computational models for simulating sound propagation and source localization within the lungs. 2006 ASME IMECE: Biomedical Applications of Vibration Symposium (Chicago, IL, November 5 - 10, 2006) 10 pages.
25. Acikgoz S, Royston TJ, Ozer MB, Mansy HA, Sandler RH. Computational and experimental models for sound transmission in the pulmonary system and chest to aid in medical diagnosis. 146th Meeting of the Acoustical Society of America, Vancouver, BC, 2005. J Acoust Soc Am 2005;117:2615C
26. Mansy HA, Hoxie S, Patel N, Sandler RH. Vascular sounds as an indicator of hemodialysis access patency. Invited paper. 146th Meeting of the Acoustical Society of America, Vancouver, BC, 2005. J Acoust Soc Am 2005;117:2615B
27. Mansy HA, Royston TJ, Balk RA, Sandler RH. Invited lecture: Acoustic detection of pneumothorax. 145th Meeting of the Acoustical Society of America, Nashville, Tennessee, USA, 2003.
28. Sandler RH, Mansy HA, Uhing MR, Meyer PM, Kimura RE. Computerized analysis of bowel sounds in normal and small bowel obstructed rats. 145th Meeting of the Acoustical Society of America, Nashville, Tennessee, USA, 2003.

29. Zhang X, Royston TJ, Mansy HA, Sandler RH. Radiation impedance of a finite circular piston vibrating normal to an isotropic viscoelastic half-space with application to medical diagnosis. JASA 2002.
30. Mansy H, Sandler R. The use of gastrointestinal sound analysis for the diagnosis of small bowel obstruction. 3rd International Workshop on Biosignal Interpretation, June 1999.
31. Kong X, Mansy HA, Sandler RH. Multi resolution analysis of gastrointestinal sounds for small bowel obstruction identification. 3rd International Workshop on Biosignal Interpretation, June 1999.
32. Mansy H, Sandler R, Royston T, Jones D. Testing sensors for body surface vibration measurement. 21st Ann Int Conf IEEE Engineering Med Biology Society, October 1999.
33. Mansy HA, Sandler RH. Choice of operating parameters in heart sound removal from bowel sounds using adaptive filtering. 19<sup>th</sup> Ann Intl Conf IEEE Engineering Med Biology Society, Chicago, 1997:106.
34. Mansy HA, Sandler RH. Artifact removal from biological signals using adaptive filters as applied to bowel sound enhancement by removing heart sounds in anesthetized rats. Rush University Research Forum, Rush University, Chicago, 1996:206.

**Posters/Abstracts and Engineering Conference Articles (83; 28 First Author, 32 Senior Author)**

1. Sandler RH. Abdominal cutaneous nerve entrapment syndrome (ACNES). North Am Soc Pediatr Gastro and Nutrition (NASPGHAN) Annual Scientific Meeting. Orlando, 2022.
2. Dhar R, Sandler RH, Manwaring K, Mansy HA, Noninvasive Detection of Elevated Intracranial Pressure using Spectral Analysis of Tympanic Membrane Pulsation Signals. IEEE Signal Processing in Medicine and Biology Symposium, Dec 2021, Philadelphia, PA
3. Raodeo P, Brown L, Hartig M, Hassan T, Sandler RH, Price C, Mansy HA, The Utilization of Chicken Quarters for the Detection of Developmental Hip Dysplasia. IEEE Signal Processing in Medicine and Biology Symposium, Dec 2021, Philadelphia, PA
4. Farahat SA, Azad MK, Sandler RH, Raval N, Mansy HA. Spatial Distribution of Seismocardiographic signal Clustering. IEEE Signal Processing in Medicine and Biology Symposium, Dec 2021, Philadelphia, PA
5. Hassan T, Rahman B, Sandler RH, Mansy HA. Effect of Normal Breathing and Breath holding on Seismocardiographic Signals and Heart Rate. IEEE Signal Processing in Medicine and Biology Symposium, Dec 2021, Philadelphia, PA

6. Rahman B, Hassan T, Sandler RH, Mansy HA. The identification of respiratory phase using Support Vector Machines and Extreme Gradient Boosting, IEEE Signal Processing in Medicine and Biology Symposium, Dec 2021, Philadelphia, PA
7. Sandler RH, Hassan T, Rahman B, Raval N, Mentz RJ, Mansy HA, Seismocardiographic Signal Variability During Regular Breathing and Breath Holding. Journal of Cardiac Failure, 2021
8. Sandler RH, Dhar R, Raval NY, Mentz RJ, Mansy HA, Seismocardiography Feature Selection For Prediction Of Heart Failure Readmission. Journal of Cardiac Failure, 2021
9. Sandler RH, Hassan T, Azad MK, Rahman B, Raval NY, Mentz RJ, Mansy HA, Respiratory Phase Detection From Seismocardiographic Signals Using Machine Learning. Journal of Cardiac Failure, 2021
10. Sandler RH, Ahdy S, Azad MK, Raval NY, Mentz RJ, Mansy HA, Dependence of SCG Clustering on SCG Measurement Location. Journal of Cardiac Failure, 2021
11. Sandler RH, Azad MK, D'Angelo J, Gamage P, Raval N, Mentz RJ, Mansy HA. Documenting Spatial Variation of SCG Signals for Optimal Sensor Placement. Journal of Cardiac Failure, 26(10), p.S92, 2020.
12. Sandler RH, Gamage P, Azad MK, Dhar R, Raval N, Mentz R Mansy HA. Potential SCG Predictors of Heart Failure Readmission. Journal of Cardiac Failure, 26(10), p.S87. 2020.
13. Sandler RH, Gamage P, Azad MK, Dhar R, Spiewak A, Raval N, Mentz RJ, Mansy HA. Computational and Mechanical Modeling of SCG Signals. Journal of Cardiac Failure, 26(10), p.S88, 2020
14. Kostick N, Dhar R, Mansy HA, Sandler RH, Manwaring K: A "Brain Stethoscope" for Measurement of Brain Compliance: A Non-Invasive Tool for Intracranial Pressure Assessment. North American Neuro-Ophthalmology Society 46th Annual Meeting, March 7-12, 2020
15. Dhar R, Sandler RH, Manwaring K, Mansy HA, Noninvasive detection of elevated intracranial pressure using tympanic membrane pulse, IEEE Signal Processing in Medicine and Biology Symposium, Dec 6, 2019, Philadelphia, PA
16. Hassan T, McKinney L, Sandler RH, Kassab A, Price C, Moslehy F, Mansy HA, A System for Measuring Sound Transmission through Joints, IEEE Signal Processing in Medicine and Biology Symposium, Dec 6, 2019, Philadelphia, PA
17. Gamage PT, Azad MK, Sandler RH, Mansy HA Modeling Seismocardiographic Signal using Finite Element Modeling and Medical Image Processing, IEEE Signal Processing in Medicine and Biology Symposium, Dec 6, 2019, Philadelphia, PA

18. Azad MK, Gamage PT, Sandler RH, Raval N, Mansy HA, Seismocardiographic Signal Variability During Regular Breathing and Breath Hold in Healthy Adults, IEEE Signal Processing in Medicine and Biology Symposium, Dec 6, 2019, Philadelphia, PA
19. Kostick N, Dhar R, Mansy HA, Sandler RH, Manwaring K: A Patient's Own "Brain Stethoscope" for Measurement of Brain Compliance: Remote Assessment of Control of Hydrocephalus. AANS/CNS Section on Pediatric Neurological Surgery, 48<sup>th</sup> Annual Meeting, Dec. 6-8, 2019, Scottsdale, AZ
20. Sandler RH, Azad MK, Rahman B, Taebi A, Gamage PT, Raval N, Mentz RJ, Mansy HA. Minimizing seismocardiography variability by accounting for respiratory effects, Heart Failure Society of America 23<sup>rd</sup> Annual Scientific Meeting, Sept 13-16, 2019, Philadelphia, PA
21. Kostick N, Dhar R, Mansy H, Sandler RH, Manwaring K. A "Brain Stethoscope" for measurement of brain compliance: A non-invasive tool for intracranial pressure measurement. North American Neuro-Ophthalmology Society Annual Meeting. March 2020.
22. Taebi A, Sandler RH, Kakavand B, Mansy HA. Estimating peak velocity profiles from Doppler echocardiography using digital image processing. IEEE Signal Processing in Medicine and Biology Symposium, Dec 1, 2018, Philadelphia, PA
23. Gamage PT, Azad MK, Taebi A, Sandler RH, Mansy HA. Clustering SCG events using unsupervised machine learning. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
24. Hassan T, McKinney L, Sandler RH, Kassab A, Price P, Moslehy F, Mansy HA. An acoustic approach for detection of developmental dysplasia of the hip. IEEE Signal Processing in Medicine and Biology Symposium, Dec 1, 2018, Philadelphia, PA
25. Azad MK, Gamage PT, Taebi A, Sandler RH, Mansy HA. Extraction of respiratory variations from different physiological signals. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
26. Azad MK, Gamage PT, Taebi A, Sandler RH, Mansy HA. A study of day to day and postural variability in seismocardiographic signals. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
27. Hassan T, McKinney L, Sandler RH, Kassab A, Price P, Moslehy F, Mansy HA. An acoustic approach for early screening of developmental dysplasia of the hip. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA

28. Taebi A, Sandler RH, Kakavand B, Mansy HA. Estimating peak velocity profiles from Doppler echocardiography using digital Image processing. IEEE Signal Proc Med Biol, Dec 1 2018, Philadelphia, PA
29. Sandler RH, Krishnan K, Mansy HA, Berson A, Mentz R. Seismocardiographic changes with heart failure status change: Observations from a pilot study. 22<sup>nd</sup> Annual scientific meeting of the Heart Failure Society of America. Sept 15-18, 2018, Nashville, TN
30. Khalili F, Gamage PT, Sandler RH, Mansy HA. Prediction of turbulent shear stresses through dysfunctional bi-leaflet mechanical heart valves using computational fluid dynamics. 3rd Thermal and Fluids Engineering Conference (TFEC). March 4-7, 2018, Fort Lauderdale, FL
31. Taebi A, Sandler RH, Kakavand B, Mansy HA. Seismocardiographic signal timing with myocardial strain. IEEE Signal Proc Med Biol, Dec 2 2017, Philadelphia, PA
32. Mansy HA, Simms L, Condo S, Miranda A, Manwaring K, Sandler RH. Non-invasive measurement of tympanic membrane oscillations, World Summit on Bioengineering, Nov 7-8, 2016 Las Vegas, NV
33. Mansy HA, Azad MK, McMurray B, Henry B, Royston TJ, Sandler RH. Investigating the geometry of pig airways using computed tomography. Proceedings of SPIE Biomedical Applications in Molecular, Structural, and Functional Imaging, Feb 21-26, 2015, Orlando, FL
34. Mansy HA, Azad KA, McMurray B, Henry B, Royston TJ, Sandler RH. Probing the angles and diameters of pig airway branching using computed tomography. BMES conference, Oct 7-10, 2015, Tampa FL
35. Kakavand B, Gomez R, Franciosi J, Sandler RH. Increased incidence of celiac artery stenosis in patients with postural orthostatic tachycardia syndrome. NASPGHAN Annual Meeting, Washington, DC, October 7-11 2015.
36. Gomez-Suarez R, Johnson C, Franciosi J, Sandler RH. Wirsungorrhagia from a pseudoaneurysm rupture of the pancreatoduodenal artery in a 6 year old girl with pancreatic pseudocyst from recurrent pancreatitis. NASPGHAN Annual Meeting, October 7-11 2015, Washington, DC.
37. Mansy HA, Sandler RH. Using body vibration measurements for monitoring heart conditions. The 20<sup>th</sup> Annual International Conference on Industry, Engineering, and Management Systems. Mar 23-26, 2014, Cocoa Beach, FL.
38. Dai Z, Peng Y, Mansy H, Royston T, Sandler R. Estimation of local viscoelasticity of lungs based on surface waves. International Mechanical Engineering Conference and Exposition,

Denver, 2011.

39. Acikgoz S, Ozer MB, Royston TJ, Mansy HA, Sandler RH. Experimental and computational models for simulating sound propagation and source localization within the lungs. 2006 ASME IMECE: Biomedical Applications of Vibration Symposium (Chicago, IL, November 5 - 10, 2006) 10 pages.
40. Acikgoz S, Royston TJ, Ozer MB, Mansy HA, Sandler RH. Computational and experimental models for sound transmission in the pulmonary system and chest to aid in medical diagnosis. 146th Meeting of the Acoustical Society of America, Vancouver, BC, 2005. J Acoust Soc Am 2005;117:2615C
41. Mansy HA, Hoxie S, Patel N, Sandler RH. Vascular sounds as an indicator of hemodialysis access patency. Invited paper. 146th Meeting of the Acoustical Society of America, Vancouver, BC, 2005. J Acoust Soc Am 2005;117:2615B
42. Kanwar B, Lloyd-Still JD, McConnie RM, Sandler RH. Utility of HIDA scan in the evaluation of the premature infant with cholestasis. Pediatric Research 2004;55:184A
43. Hassaballa HA, Mansy HA, Hoxie SJ, Warren WH, Balk RA, Sandler RH. Detection of pneumothorax by computerized breath sound analysis. Chest 2004;126:881S.
44. Balk RA, Mansy HA, O'Connor CJ, Sandler RH. Identification of bronchial intubation using computer-assisted chest auscultation. Chest 2004;126:900S-901S.
45. O'Connor CJ, Mansy HA, Balk R, Sandler RH. Identification of endotracheal tube malposition using computerized analysis of breath sounds. International Anesthesia Research Society, 2004 Clinical and Scientific Congress. Anesth Analg 2004; S-105.
46. Mansy HA, Balk R, Hassaballa H, Choudry Z, McFarlin JD, Sandler RH. Detection of pneumothorax by computerized analysis of breath sounds. Chest 2003;124(suppl):86s
47. Kulkarni K, Mansy HA, Hoxie S, Sandler RH. Acoustic detection of arteriovenous graft patency. CUBIC (Chicago Universities Biomedical Engineering Consortium), March, 2003.
48. Beams ZK, Lloyd-Still JD, McConnie RM, Jakate S, Sandler RH. Transglutaminase not foolproof in diagnosis of celiac disease in children. J Allergy Immunology 2003;3:s105.
49. Mansy HA, Royston TJ, Balk RA, Sandler RH. Invited lecture: Acoustic detection of pneumothorax. 145th Meeting of the Acoustical Society of America, Nashville, Tennessee, USA, 2003.

50. Sandler RH, Mansy HA, Uhing MR, Meyer PM, Kimura RE. Computerized analysis of bowel sounds in normal and small bowel obstructed rats. 145th Meeting of the Acoustical Society of America, Nashville, Tennessee, USA, 2003.
51. Jakake S, Sandler RH. Eosinophilic esophagitis in children diagnosed after failed therapy for gastroesophageal reflux disease (GERD): Review of clinopathological and endoscopic criteria. USCAP (United States and Canadian Academy of Pathology), March 22-28, 2003, Washington DC.
52. Sandler RH. Two novel skin level gastrostomy device insertion techniques to prevent complications of gastric separation following post-pep button placement. *Gastrointestinal Endoscopy* 1997;45:AB100
53. Zhang X, Royston TJ, Mansy HA, Sandler RH. Radiation impedance of a finite circular piston vibrating normal to an isotropic viscoelastic half-space with application to medical diagnosis. *JASA* 2002.
54. Angtuanco TL, Evans J, Harrell L, Mansy HA, Sandler RH. The effect of abdominal palpation on gastrointestinal sounds (GIS) in healthy subjects: A quantitative investigation using computerized analysis. *Am J Gastroenterol* 2000;95:274A
55. Sandler RH, Mansy HA. Computerized gastrointestinal sound analysis changes with small bowel obstruction. *J Pediatr Gastroenterol Nutr* 2000;31:s189.
56. Sandler RH. Ketamine anesthesia for pediatric gastrointestinal and hepatic procedures. *J Pediatr Gastroenterol Nutr* 2000;31:s189.
57. Lee JC, Sandler RH. Acute esophageal necrosis associated with emesis and small bowel obstruction in a 12-year-old girl. *J Pediatr Gastroenterol Nutr* 2000;31:s179.
58. Sandler RH. Apparent successful use of an acetylcholine esterase inhibitor (pyridostigmine) in severe chronic intestinal pseudo-obstruction. *J Pediatr Gastroenterol Nutr* 2000;31:s34.
59. Mansy H, Sandler R. The use of gastrointestinal sound analysis for the diagnosis of small bowel obstruction. 3rd International Workshop on Biosignal Interpretation, June 1999.
60. Kong X, Mansy HA, Sandler RH. Multi resolution analysis of gastrointestinal sounds for small bowel obstruction identification. 3rd International Workshop on Biosignal Interpretation, June 1999.
61. Mansy H, Sandler R, Royston T, Jones D. Testing sensors for body surface vibration measurement. 21st Ann Int Conf IEEE Engineering Med Biology Society, October 1999.

62. Sandler RH, Bolte ER, Buchanan CP, Maxwell AP, Chez MG. Antibiotic intervention trial for the treatment of children with delayed onset autism. *Pediatric Research* 1998;43:105a.
63. Sandler RH, Bolte ER, Buchanan CP, Maxwell AP, Chez MG. Possible gut-brain interaction contributing to delayed onset autism symptomatology. *J Neurogastroenterol Motility* 1998;10:364
64. Sandler RH, Bolte ER, Chez MG, Schrift MJ. Relief of psychiatric symptoms in a patient with Crohn's disease after metronidazole therapy. *J Neurogastroenterol Motility* 1998;10:363
65. Mansy HA, Sandler RH. A new acoustic method for immediate pneumoperitoneum detection. *J Pediatr Gastroenterol Nutr* 1998;27:486.
66. Sandler RH, Mansy HA, Kimura RE, Uhing MR. Evolution of gastrointestinal sound changes after small bowel obstruction in an experimental rat model. *J Pediatr Gastroenterol Nutr* 1998;27:486.
67. Mansy HA, Sandler RH. Choice of operating parameters in heart sound removal from bowel sounds using adaptive filtering. 19<sup>th</sup> Ann Intl Conf IEEE Engineering Med Biology Society, Chicago, 1997:106.
68. Sandler RH, Mansy HA, Fiala-Cline K. Computerized analysis of swallowing sounds in normal subjects. *Am J Gastroenterol* 1997;92:1602b.
69. Sandler RH, Mansy HA. Effects of abdominal palpation on bowel sounds: A quantitative investigation using computerized analysis. *J Pediatr Gastroenterol Nutr* 1997;25:484b.
70. Sandler RH, Mansy HA, Kumar S, Pandya P, Reddy N. Computerized analysis of bowel sounds in normal fed and fasted human subjects. *Gastroenterology* 1996;110:A752.
71. Sandler RH, Mansy HA, Kumar S, Pandya P, Reddy N. Computerized analysis of bowel sounds in human subjects with mechanical bowel obstruction vs. ileus. *Gastroenterology* 1996;110:A752.
72. Sandler RH, Mansy HA. Computerized analysis of bowel sounds in human subjects with mechanical bowel obstruction vs. ileus, an update. *J Pediatr Gastroenterol Nutr* 1996;23:369a.
73. Sandler RH, Mansy HA. Computerized analysis of bowel sounds in normal and small bowel obstructed rats. *J Pediatr Gastroenterol Nutr* 1996;23:369d.
74. Sandler RH. Ketamine anesthesia for GI procedures. *J Pediatr Gastroenterol Nutr* 1996;23:371b.

75. Mansy HA, Sandler RH. Artifact removal from biological signals using adaptive filters as applied to bowel sound enhancement by removing heart sounds in anesthetized rats. Rush University Research Forum, Rush University, Chicago, 1996:206.
76. Forchielli MD, Khan D, Richardson DS, Gura K, Goldmann MD, Rhinehart E, Sandler R, Lo C. Validation of an algorithm for access and treatment of central venous line sepsis. Am Soc Parenteral Enteral Nutrition 18<sup>th</sup> Clinical Congress Proceedings 1994:593A.
77. Nagpal R, Mathur M, Sandler RH. Correlation of serum soluble ICAM-1 levels with pediatric Crohn's disease activity index. Gastroenterology 1994;106:A742.
78. Sandler RH, Richardson RN, Lo C. Algorithms for the management of suspected central venous catheter sepsis. Am Soc Parenteral Enteral Nutrition 16<sup>th</sup> Clinical Congress Proceedings 1992:125B.
79. Gura K, Forchielli ML, Carlin A, Lo C, Sandler RH. Incidence of cholestasis in infants receiving parenteral nutrition: Comparison of Aminosyn PF and Trophamine. JPEN 1992;16S:28.
80. Caballero B, Sandler R, Deng MH, Wurtman R. Phenylalanine metabolism in humans: A reciprocal labeling study using 1-C<sup>13</sup> and 3,3-<sup>2</sup>H<sup>2</sup> tracers. FASEB J 1991;5:A564.
81. Sandler RH, Wroblewski B. Thrombosis risk of central venous catheters in neonates with necrotizing enterocolitis. JPEN 1991;15:24S.
82. Carlin A, Sandler RH, Lo C. Prolonged prothrombin times in pediatric bone marrow transplantation recipient receiving TPN with and without added vitamin K. Accepted for presentation, American Association of Parenteral and Enteral Nutrition (ASPEN), January, 1990.
83. Sandler RH, Maller ES, Meyers AF, Snyder JD, Kleinman RE. Use of ursodeoxycholic acid (UDCA) for children with severe liver disease from total parenteral nutrition: Report of three cases. Pediatr Res 1989;25:124A.

## Letters

1. Sandler RH. Transgender therapy for teenagers. Wall Street Journal, 31 Aug 2022.
2. Sandler RH, Kumar A, Richardson K, Constant E. Foreign body in the hard palate. Pediatrics 1987;79:484-85.
2. Sandler RH. Unsatisfactory continuing medical education. JAMA 1984;251:1431.
3. Sandler RH. Medical help for developing nations. JAMA 1984;252:766.

**Book Chapters** (14; 5 first author, 2 senior author)

1. Ahdy S, Sandler RH, Mansy HA. Effect of the Initial Condition on SCG Clustering using Unsupervised Machine Learning. Signal Processing in Medicine and Biology, IEEE SPMB Symposium 2026.
2. Ahdy S, Sandler RH, Mansy HA. Non-invasive ICP Monitoring by Auditory System Measurements. Signal Processing in Medicine and Biology, IEEE SPMB Symposium 2026.
3. Khurshidul MD, D'Angelo J, Gamage PT, Ismail S, Sandler RH, Mansy HA. Spatial Distribution of Seismocardiographic signals. Obeid et al (eds), Biomedical Signal Processing, Springer Nature, Switzerland, 2021.
4. Azad MK, D'Angelo J, Gamage PT, Ismail S, Sandler RH, Mansy H.A. Spatial Distribution of Seismocardiographic Signals. In: Obeid I., Selesnick I., Picone J. (eds) Biomedical Signal Processing. 2021, Springer, Cham. [https://doi.org/10.1007/978-3-030-67494-6\\_5](https://doi.org/10.1007/978-3-030-67494-6_5)
5. Gamage PT, Azad MK, Taebi A, Sandler RH, Mansy HA, Clustering of SCG events using unsupervised machine learning, IEEE invited book chapter, Springer Nature, 2020
6. Royston TJ, Acikgoz S, Ozer MB, Mansy HA, Sandler RH. Advances in Computational Modeling of Sound Propagation in the Lungs and Torso with Diagnostic Applications. ASME Review of Biomedical Acoustics. In press
7. Kleinman RE, Sandler RH. Cholestasis associated with parenteral nutrition. In: Walker WA, Durie PR, Hamilton JR, Walker-Smith JA, Watkins JB (eds). Pediatric Gastrointestinal Disease, ed 2. St. Louis, Mosby, 1996:1271-81.
8. Sandler RH, Kleinman RE. Cholestasis associated with parenteral nutrition. In: Walker WA, Durie PR, Hamilton JR, Walker-Smith JA, Watkins JB (eds). Pediatric Gastrointestinal Disease. Philadelphia, BC Decker, 1991:1065-74.
9. Sandler RH. Syndromic and non-syndromic bile duct paucity. In: Walker WA, Snyder JC (eds). Common Problems in Pediatric Gastroenterology and Nutrition. Chicago, Yearbook Medical Publishers, 1989:225-230.
10. Cobey CC, Sandler RH, Jones TC, Chalfin B. Basic considerations in refugee medicine. In: Sandler RH, Jones TC (eds). Medical Care of Refugees. New York City, Oxford University Press, 1987:3-12.
11. Sandler RH. Training refugees to be health workers. In: Sandler RH, Jones TC (eds). Medical Care of Refugees. New York City, Oxford University Press, 1987:43-47.

12. Sandler RH, MacLean WC. Diagnosis and treatment of severe malnutrition in individual patients. In: Sandler RH, Jones TC (eds). Medical Care of Refugees. New York City, Oxford University Press, 1987:125-42.
13. Sandler RH, Wray J. Family planning. In: Sandler RH, Jones TC (eds). Medical Care of Refugees. New York City, Oxford University Press, 1987:63-75.
14. Sandler RH, MacLean WC. Oral rehydration, fluid and electrolyte therapy. In: Sandler RH, Jones TC (eds). Medical Care of Refugees. New York City, Oxford University Press, 1987:143-54.

## **OTHER MEDICAL ACTIVITIES**

### **NIH Study Section**

2006-08 Ad-Hoc Member, NIDDK SBIR Scientific Review Study Section

### **U.S. Department of Defense: Congressionally Directed Medical Research Programs**

2008 Reviewer for: Autism Research Program Clinical Protocol Review (ASD-CPR) Panel of the Autism Research Program (ARP)

### **Medical Journal Editor:**

2023- present Associate Editor for Pediatrics, Issues in Law and Medicine

### **Medical Journal Reviewer (\*active)**

1. American Journal of Clinical Nutrition
2. Archives of Pediatrics & Adolescent Medicine
3. Clinical Gastroenterology and Hepatology
4. Critical Care Medicine
5. Gastroenterology
6. Journal of the American Medical Association
7. Journal of the American Public Health Association
8. Journal of Autism and Developmental Disorders
9. Journal of Pediatric Gastroenterology and Nutrition\*
10. Journal of Pediatrics
11. Journal of Parenteral and Enteral Nutrition
12. Medical & Biological Engineering and Computing
13. Nature Communications\*
14. Pediatrics
15. Pediatric Critical Care
16. Sensors (MDPI publication)\*

### **Membership of Honorable Medical Organizations (\* = active)**

1. American Academy of Pediatrics

2. American Association of Pro-life Ob and Gyn \*
3. American Association for the Study of Liver Diseases
4. American College of Pediatricians \*
5. American Gastroenterological Association
6. American Motility Society
7. American Society of Acoustics
8. Catholic Medical Association \*
9. Crohn's & Colitis Foundation of America
10. Heart Failure Society of America
11. Institute of Electrical and Electronics Engineers (Biomedical Engineering Section)
12. North American Society for Pediatric Gastroenterology and Nutrition \*

**Nemours Children's Hospital Service**

2012-2014	Vice Chair of Pediatrics	
2012-2014	Chief, Division of Gastroenterology, Hepatology and Nutr.	
2013-2014	MD Leadership Committee	
2014-2015	Medical Staff Policy Committee	
January 2013-2015	Electronic Medical Records Committee	
January 2013-2015	New Products Committee	
Mentorship:	James P. Franciosi, MD	Gastroenterology
	Roberto Gomez, MD	Gastroenterology
	Jolanda Denham, MD	Gastroenterology
	Julie Wei, MD	Otolaryngology
	Victoria Niklas, MD	Neonatology
	Robert Karch, MD	Hospitalist

**University of Central Florida (2013-present)**

Mentored engineering and medical students in bioacoustics research, including:

- 6 graduated PhD students
- 6 graduated MS students
- 1 HIM (honors in major) student
- 4 medical students (through the FIRE program)
- About 40 undergraduate students have participated in our biomedical engineering research
- In the past 2 years, our undergraduate trainees won first place and top 10 presentation awards in the Showcase of Undergraduate Research Excellence (SURE) organized through UCF.

**Rush University Committee Service**

**Medical Center**

2005-10,2011-2012	Medical Staff Executive Committee (elected member)
2008-2010	Secretary of the Medical Staff (elected officer)
2009-2012	Member, Medical Staff Bylaws subcommittee
2007-2012	Producer and Host, Annual Rush Faculty and Student Music Celebration
2009-2010	Search Committee, Hospital VP, Rush Children's Hospital
2009-2012	Medical Staff By Laws Subcommittee
2004-2005	Anchor Cross Society
1995-1996	Ad Hoc Committee on Paging Communications

### **Rush Medical College**

2009-2011	Rush University Council
2005-2011	Faculty Council (Senior representative body of the faculty that reviews and approves all faculty appointments and promotions, approves policies and procedures, medical student issues, and other issues related to academic faculty affairs)
2004-2008	Faculty Advisor (15 students)
1999-2005	Ad Hoc Committee on Governance
1998-1999	Ad Hoc Departmental Review Committee (Digestive Diseases)
1995-1998	Committee on Committees

### **Rush University Pediatrics Department**

2004-2012	Associate Chairman for Research
2002 to 2012	Strategic Planning Committee
2005-2012	Co-Medical Director, Subspecialty Services
2002 to 2012	Departmental Advisory Committee
1991-98,2011-2012	Rush Children's Hospital Marketing Committee
2002 to 2007	Compensation Committee
2007	Coordinator, Morbidity and Mortality Grand Rounds
2006-08	Lead attending MD, EPIC EMR implementation
2002-06	Philanthropy Committee
1997-2004	Departmental MSP Governing Committee
1998-2001	Minority Affairs Committee (Chair)
1990-95	Ambulatory Care Committee
1990-94	Computer Committee (Chair)

### **International Recognition (Medicine)**

1. Lead editor of a book on medical care of refugees (see above) published by Oxford University Press. (Favorable review of this book by several publications, including the New England Journal of Medicine: Gilman SC. Medical Care of Refugees. N Engl J Med 1988;319:1028.)

2. Invited address: The impact of the threat of nuclear war on adolescents in a United States mid-western urban school system. Fourth Congress of the International Physicians for the Prevention of Nuclear War, Helsinki, Finland. June, 1984.
3. Invited address: Physics, chemistry and effects of nuclear weapons. Address to the 4th Congress of the International Physicians for the Prevention of Nuclear War, Helsinki, Finland. June, 1984.

### **National Recognition (Medicine)**

1. The Father-Child Dyad. Keynote Speaker: Annual combined meeting of the American College of Pediatricians and AAPLOG, Nashville, TN, Feb 26, 2022.
2. Invited Speaker: 145th Meeting of the Acoustical Society of America in Nashville, TN, April 28 - May 2, 2003. Topic: Audible-Frequency Medical Diagnostic Methods: Fundamental issues, applications and future directions.
3. Pediatric Board Review Course, four lectures given (on Vomiting, Diarrhea, Jaundice, and Hepatitis) for the Osler Institute, Chicago, October, 1994.
4. Pediatric Liver Transplantation for Inherited Metabolic Liver Diseases, Illinois State Genetics Society Annual Meeting, Chicago, September, 1994.
5. Gastrointestinal Developmental Physiology, National Neonatology Review, National Center for Continuing Medical Education, Chicago, August, 1994.
6. Pediatric Gastroenterology, Topic Review for Family Practice Board Review Course, Osler Institute, Chicago, September, 1993.
7. Gastrointestinal Developmental Physiology, National Neonatology Review, National Center for Continuing Medical Education, Chicago, August, 1993.
8. Overview and Update on Neonatal Nutrition, National Neonatology Review, National Center for Continuing Medical Education, Chicago, August, 1993.
9. Pediatric and Neonatal Esophageal pH Probe Monitoring, 1992 **Blue Cross Blue Shield** Medical and Quality Management **National Conference**, Chicago, October, 1992.
10. Medical Care of Refugees. **National Academy of Sciences**, Institute of Medicine, Washington, DC, December, 1991.
11. Emergency Relief for Refugee Crises. **National Academy of Sciences**, Institute of Medicine, Washington, DC, October, 1991.
12. Medical complications of anorexia nervosa and bulimia. Pediatric Grand Rounds, Boston Children's Hospital, **Harvard Medical School**, Boston, May, 1988.

### **Regional Recognition (Medicine)**

1. Biomedical Acoustics. Biomedical Engineering Symposium, University of Central Florida, October, 2013.
2. Little Kids with Big Tummy Aches: Diagnosing Chronic Abdominal Pain in Children, CentegraHealth System Clinical Symposium, Chicago, IL, April, 2008
3. Gastroesophageal Reflux, Pediatric Grand Rounds, Munster Community Hospital, Munster, Indiana, July, 2007.
4. Gastroesophageal Reflux, Pediatric Grand Rounds, South Suburban Hospital, June, 2007.
5. Pediatric Abdominal Pain, Pediatric Grand Rounds, Elmhurst Community Hospital, November, 1999.

6. Gastroesophageal Reflux, Pediatric Grand Rounds, Elmhurst Community Hospital, January, 1997.
7. Gastroesophageal Reflux, Pediatric Grand Rounds, McNeal Hospital, January, 1997.
8. Pediatric Gastroenterology Update, Monthly Meeting, Chicago Pediatric Society, April, 1997.
9. Pediatric Considerations in IBD. Crohn's Colitis and Ileitis Foundation of America, Chicago, April, 1995.
10. Update on Hepatitis, Chicago Medical Society, March, 1991.
11. Neonatal Cholestasis, Christ Hospital, Pediatric Grand Rounds, January, 1991.
12. Cholesterol and diet in children, Pediatric Grand Rounds, Copley Memorial Hospital, Septerm, 1991.
13. Gaucher's Disease: Biochemistry, genetics, and clinical presentations. Pediatric Grand Rounds, Michigan State University, Edward W. Sparrow Hospital, Lansing, Michigan. November, 1986.
14. Acupuncture and other alternative approaches to medical therapeutics. College of Human Medicine, Michigan State University, November, 1986.
15. Oral Rehydration Therapy: A clinical review. Emergency Medicine Rounds, Michigan State University, E.W. Sparrow Hospital, Lansing, Michigan. February, 1986.
16. Oral Rehydration Therapy: Scientific basis, and clinical review. Pediatric Grand Rounds, Michigan State University, St. Lawrence Hospital, Lansing, Michigan. January, 1986.
17. Diagnosis and treatment of tuberculosis and leprosy in refugee camps. Family Practice Grand Rounds, St. Lawrence Hospital, Michigan State University. October, 1983.
18. Medical care of refugees. Family Practice Grand Rounds, Edward W. Sparrow Hospital, Michigan State University. March, 1982.
19. Medical care of refugees. Medical Grand Rounds, Bay Medical Center, Bay City, MI. March, 1982.
20. Ethical issues in late stage progressive skeletal muscle disease. Medical Grand Rounds, St. Lawrence Hospital, Michigan State University. November, 1979.

### **Rush Grand Rounds and Invited Conference Presentations**

1. Update on Neonatal and Pediatric Total Parenteral Nutrition. Rush Children's Hospital and Cook County Hospital Bilateral Pediatrics Grand Rounds, March 1, 2011.
2. Listening to your body's language: Stethoscopes on steroids. Rush Children's Hospital and Cook County Hospital Bilateral Pediatrics Grand Rounds, November 3, 2009.
3. Research Opportunities in Medicine, Cook County Hospital and Rush University Pediatrics Combined Grand Rounds, May 5, 2009.
4. Biomedical Acoustics, Pediatric Grand Rounds, Rush Children's Hospital, May, 2005.
5. Hirschsprung's Disease, Pediatric Grand Rounds, Rush Children's Hospital, August 16, 2002.
6. Small Business Initiative Grants: How They Can Work For You, Rush Research Grand Rounds, February, 2002.
7. Pediatric Abdominal Pain, Pediatric Grand Rounds, Rush Medical College, November, 1999.
8. Gastroesophageal Reflux, Pediatric Grand Rounds, Rush Children's Hospital, January, 1999.
9. Neiman Pick Disease, Pediatric Grand Rounds, Rush Children's Hospital, January, 1997.
10. Gastroesophageal Reflux, Pediatric Grand Rounds, Rush Children's Hospital, August, 1997.

11. Gastroesophageal Reflux and Sudden Death, Pediatric Grand Rounds, Rush Children's Hospital, March, 1997.
12. Constipation and Encopresis. Incontinence Conference. Rush Medical Center, February, 1995.
13. Use of Corticosteroids in Pediatric Inflammatory Bowel Disease and Food Protein Enteropathy, Symposium on Corticosteroid Uses in Pediatrics, Department of Pediatrics, Rush University Medical Center, March, 1994.
14. Neonatal Hyperalimentation, Grand Rounds, Department of Pediatrics, Rush Medical College, December, 1993.
15. Kurdish Refugee Relief Effort. Pediatric Grand Rounds, Rush Medical College, April, 1991.
16. Update on Hepatitis, Pediatric Grand Rounds, Rush University Medical Center, March, 1991.
17. Neonatal Cholestasis, Pediatric Grand Rounds, Rush Medical College, November, 1990.

### **Rush University Teaching**

1. For 22 years presented general lectures to each medical student group on "Pediatric GI and Nutrition", and several lectures a year to Rush pediatric residents on a range of specialty topics.
2. Book Group Facilitator for M1 class Clinical Skills Intensive (CSI) 2010 and 2011.
3. Medical student research project preceptorship included:
  - a) Zee Beams, 2002-2003 (M3-4). Published abstract: Beams Z, Lloyd-Still JD, McConnie RM, Sandler RH. Celiac Disease: Transglutaminase not foolproof for diagnosis. American Allergy and Immunology Association 2003 Annual Meeting (accepted).
  - b) Jennifer Evans, 1999 (IIT-Rush biomedical engineering/MD combined degree program student): Investigation of the effects of abdominal palpation on gastrointestinal sounds (resulting in both an abstract and journal manuscript submission).
  - c) Brian Schwartz, 1998 (M2): Possible etiologic role of gastrointestinal microbiologic changes in children with autism.
  - d) Erin Rogers, 1995 (M2): Investigation of acoustic changes with gastrointestinal perforation in an animal model.
4. Pediatric resident research preceptorships including:
  - a) Diana Greyz, MD, 2007-2010. One manuscript submitted thus far (Scandinavian Journal of Gastroenterology), on a rat small bowel obstruction model for understanding gastrointestinal sound changes.
  - b) Bittoo Kanwar, MD, 2002-2004 (Published abstract: Kanwar B, Lloyd-Still JD, McConnie RM, Sandler RH. Utility of HIDA scan in the evaluation of the premature infant with cholestasis. Society for Pediatric Research, May 3<sup>rd</sup>, 2004 Pediatric Academic Societies' Annual Meeting in San Francisco, CA.
  - c) Ashish DebRoy, MD, 2004-2005: Non-alcoholic liver disease in children.
5. Faculty advisory for 15 Rush Medical College students from April, 2004-07.

### **National Recognition (War and Peace)**

1. Chapter Coordinator, Physicians for Social Responsibility (PSR), Central Michigan Chapter. 1984 to 1987. ((PSR is the US affiliate of the International Physicians for the Prevention of Nuclear War (IPPNW), the 1985 Nobel Peace Prize winner.))
2. Producer and Host, *Issues for the Nuclear Age* (A series of 20 syndicated cable television productions). September, 1984 to March, 1986.
3. Producer and Director, *Video Pen-pal Project* (with US and USSR children). Produced in cooperation with NBC television (Lansing, MI affiliate), 1993-1994.

### **National Recognition (Energy and Environment)**

1. Sandler RH. Agreement among the USA as represented by the US Atomic Energy Commission, the TVA, the Commonwealth Edison Company, and the Project Management Corporation, for construction of a demonstration nuclear breeder reactor. US Congress Joint Committee on Atomic Energy. Hearings: 93rd Congress, 1st Session, February 28, 1973, pp 326-29.
2. Sandler RH. Comments on the arrangements to construct the liquid metal fast breeder reactor. Testimony before the US Congress Joint Committee on Atomic Energy. Hearings: 93rd Congress, 1st Session, May 4, 1973, pp 108-37.
3. Sandler RH. Concerning the confirmations of W. Kriegsman to be Commissioner of the US Atomic Energy Commission. Testimony before the US Congress Joint Committee on Atomic Energy. Hearings: 93rd Congress, 1st Session, May 17, 1973. Government Printing Office, Washington, D.C.
4. Sandler RH. Environmental effects of transportation of fuel and waste to and from nuclear power reactors. Testimony before the US Atomic Energy Commission, Docket RM 50-4, March 27, 1973, Washington, D.C.
5. Sandler RH. Nuclear power plant financing, and the public's health (letter). *The State Journal*, January 31, 1984.
6. Sandler RH, Gruenstein P. Power from fission: Potential for catastrophe. *Progressive Magazine* 1973;37:36-41.

### **Honors**

1. 2019-present Florida Top Doctors
2. 2011 and 2012 US News and World Report: Named a "Top Doctor"
3. 2011 and 2012 US News and World Report: Named Rush Children's Hospital Section of Pediatric Gastroenterology, Hepatology and Nutrition as one of the nation's top 50 programs
4. 2012: Chicago Super Doctors
5. 2014: Top gastroenterologist in Orlando, International Association of Healthcare Professionals, The Leading Physicians of the World.
6. 2013: Doctor of Excellence by the Board of leaders in Healthcare Network, NYC, NY
7. 2006: Member, NIH Center for Scientific Review Panel (ZRG1 GIG-A)
8. 2004-present: Consumers' Research Council of America: Guide to America's Top Physicians
9. 2001-2012: Castle Connolly's Top Doctors: Chicago Metro Area
10. 2000-2012: Chicago Best Doctors Directory
11. 1985: **Nobel Peace Prize** awarded to International Physicians for the Prevention of

Nuclear War. I was an active leader in this international organization and its US affiliate, Physicians for Social Responsibility, including:

- i) 1983-1986: President of the Mid-West Michigan Chapter of PSR
  - ii) 1983-1984: Producer and Host of the "Video Pen-Pal Project" - in conjunction with the mid-Michigan NBC TV affiliate. (U.S. children shared their lives, dreams, messages and questions with USSR children. I brought the film to the USSR in 1984.)
  - iii) 1984-1986: Producer and Host for a 20 part television series entitled "Issues for the Nuclear Age" - originally produced for cable TV and distributed nationally.
  - iv) 1984-1986: Coordinator for three annual PSR symposium at Michigan State University where guest speakers addressed several hundred participants.
12. 2011: Leading Health Professionals of the World, International Biographical Centre, Cambridge, England
  13. 2011: Medical Science Award of Excellence, American Biographical Institute
  14. 2009-present: American Registry, Patients' Choice Award
  15. 2009-present: Patients' Choice Award, MDx Medical
  16. 2012: Chicago Super Doctors at [www.superdoctors.com](http://www.superdoctors.com)
  17. 2010 "Top Doctor" by the International Association of Pediatricians (published in "The Leading Physicians of the World")
  18. 1995: Developmental Disability Service Award, Misericordia National Conference on Developmental Disabilities, Chicago, IL
  19. 1987: Distinguished Service Award, Physicians for Social Responsibility, Lansing, MI

### **National TV Media: Medical Expert Appearances**

1991 (April)	ABC Good Morning America
1991 (April)	McNeil-Lehrer News Hour

### **Chicago Regional TV Media: Medical Expert Appearances**

2002 (April)	Gastrointestinal sound analysis research: <ul style="list-style-type: none"><li>• WMAQ TV, Channel 5 (NBC)</li><li>• Featured in: "It's Happening At Rush" advertising campaign in Chicago Tribune and Chicago Sun Times</li></ul>
2000 (August)	Autism treatment: <ul style="list-style-type: none"><li>• WMAQ TV, Channel 5 (NBC)</li><li>• WGN TV, Channel 9 (ABC)</li><li>• Channel 12 (Fox News Network)</li></ul>
2000 (February)	Managed care crises, WMAQ TV
1998 (December)	Liver-small bowel transplantation, WMAQ TV
1991 (April)	Kurdish Refugee Crisis, WMAQ Radio

### **Professional Listings**

1. America's Registry of Outstanding Professionals

2. Cambridge Who's Who Among Professional Physicians "Honors Edition"
3. Cambridge Who's Who Registry Among Executives and Professionals
4. Castle Connolly's Top Doctors: Chicago Metro Area
5. Chicago Best Doctors Directory
6. Consumers' Research Council of America, Washington, DC: America's Top Physicians
7. Consumers' Research Council of America, Washington, DC: America's Top Pediatricians
8. Florida Top Doctors
9. International Who's Who of Professionals
10. Marquis Who's Who in America
11. Marquis Who's Who in Medicine and Healthcare
12. Marquis Who's Who in Science and Engineering
13. Marquis Who's Who in the Midwest
14. Who's Who National Registry

### **Current License To Practice Medicine**

State of Florida: ME 1114359

### **Board Certification**

1. Board Certified in Pediatrics, American Board of Pediatrics: # 43417.
2. Board Subspecialty Certified in Pediatric Gastroenterology and Nutrition, American Board of Pediatrics: #207084.

### **Other Medical Certifications**

Pediatric Advanced Life Support (PALS)	October, 2024
Basic Cardiac Life Support (BLS)	October, 2024
Advanced Cardiac Life Support (ACLS)	1979
Advanced Trauma Life Support	1981
Diplomat, International College of Acupuncture	1982

### **Current Hospital Privileges**

- Nemours Children's Hospital, Orlando, FL
- Lakeland Regional Medical Center, Lakeland, FL

### **Recent Community Service**

1. Board of Directors, American College of Pediatrics, January 2023- present
2. Board of Directors, Orlando Philharmonic Orchestra, June 2020 – present
3. Volunteer, Shepherd's Hope Free Medical Clinic, Orlando, 2019-present
4. Board of Directors, United Arts of Central Florida, 2013- 2020; Executive Committee 2014-2020; Standards and Allocations Committee 2018-2022; Vice Chairman 2015-2017
5. President, Lake Conway Home Owners Association, 2014-2020
6. Member, Health and Hunger Taskforce, Second Harvest, Orlando, 2019-present