

## CURRICULUM VITAE

The Johns Hopkins University School of Medicine

(Signature)



(Typed Name) Brian Thomas Garibaldi, MD

2/1/2024

**DEMOGRAPHIC AND PERSONAL INFORMATION****Current Appointments**

## University

- 2016-present Associate Program Director for Bedside Medicine, Osler Medical Housestaff Training Program  
 2017-present Co-lead, Education Core, Johns Hopkins Center for Diagnostic Excellence, Armstrong Institute for Patient Safety and Quality  
 2020-present Director, [COVID-19 Precision Medicine Center of Excellence](#)  
 2020-present Clinical Lead, [Johns Hopkins Coronavirus Resource Center](#)  
 2023-present Director, [Johns Hopkins Special Pathogens Center](#)  
 2023-present Professor of Medicine and Physiology, Division of Pulmonary and Critical Care Medicine

## Hospital

- 2012-present Attending Physician, The Johns Hopkins Hospital  
 2017-present Medical Director, [Johns Hopkins Biocontainment Unit](#)

## Other

- 2017-present Founding Board Member, [Society of Bedside Medicine](#)  
 2018-present Member, Pulmonary-Allergy Drugs Advisory Committee (PADAC) of the Food and Drug Administration (FDA)

**Personal Data**

Division of Pulmonary and Critical Care Medicine  
 1830 East Monument Street, 5<sup>th</sup> Floor  
 Baltimore, MD 21205  
 Phone: 443-804-8286  
 Fax: 410-614-1652  
 E-mail: bgariba1@jhmi.edu

**Education and Training**

## Undergraduate

- 1999 BA, Anthropology, Harvard College, Cambridge, MA

## Doctoral/graduate

- 2004 MD, Johns Hopkins University School of Medicine, Baltimore, MD  
 2018 Master of Education in the Health Professions (MEHP), Johns Hopkins University School of Education, Baltimore, MD  
 2018 Post-Masters Certificate in Evidence-Based Teaching, Johns Hopkins University School of Education, Baltimore, MD

## Postdoctoral

- 2004-2005 Internship in Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD  
 2005-2007 Resident in Department of Medicine, Johns Hopkins University School of Medicine, Baltimore, MD  
 2007-2008 Post-Doctoral Fellow, Division of Pulmonary and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD  
 2008-2009 Assistant Chief of Service (Chief Resident), The Longcope Firm, Johns Hopkins University School of Medicine, Baltimore, MD  
 2009-2012 Post-Doctoral Fellow, Division of Pulmonary and Critical Care Medicine, Johns Hopkins University School of Medicine, Baltimore, MD  
 Primary Mentor: Landon S. King, MD

## Professional Experience

|           |   |
|-----------|---|
| 2012-2013 | Instructor in Medicine, Division of Pulmonary and Critical Care Medicine, Johns Hopkins University        |
| 2013-2014 | Director, Genes to Society Curriculum, Perdana University Graduate School of Medicine, Selangor, Malaysia |
| 2013-2014 | Assistant Clerkship Director, Perdana University Graduate School of Medicine, Selangor, Malaysia          |
| 2013-2018 | Assistant Professor of Medicine, Division of Pulmonary and Critical Care Medicine                         |
| 2016-2018 | Assistant Professor of Physiology   |
| 2017-2021 | President, Society of Bedside Medicine  |
| 2020-2021 | Associate Professor of Health Sciences Informatics  |
| 2018-2023 | Associate Professor of Medicine and Physiology, Division of Pulmonary and Critical Care Medicine          |

## PUBLICATIONS:

### Original Research [OR]

1. Weiss DJ, **Garibaldi BT**, Hauser MD. The production and perception of long calls by cotton-top tamarins (*Saguinus oedipus*): acoustic analyses and playback experiments. *J Comp Psychol*. 2001 Sep;115(3):258-71. PMID: 11594495 (senior thesis for undergraduate degree)
2. **Garibaldi B**, Conde-Martel A, O'Toole TP. Self-reported comorbidities, perceived needs, and sources for usual care for older and younger homeless adults. *J Gen Intern Med*. 2005 Aug;20(8):726-30. PMID: 16050882
3. **Garibaldi B**, Malani R, Yeh HC, Lipson E, Michell D, Bennett M, Moliterno A, McDevitt MA, Kickler TS. Estimating platelet production in patients with HIV-related thrombocytopenia using the immature platelet fraction. *Am J Hematol*. 2009 Oct 9. PMID: 19890906
4. Files DC, D'Alessio F, Johnston LF, Kesari P, Aggarwal N, **Garibaldi B**, Mock JR, Simmers JL, DeGorordo A, Murdoch J, Willis M, Patterson C, Tanskersley C, Mess L, Liu C, Delbono O, Furlow JD, Bodine S, Cohm R, King LS, Crow MT. A Critical Role for Muscle Ring Finger-1 in Acute Lung Injury Associated Skeletal Muscle Wasting. *Am J Resp Crit Care Med*. 2012 Apr 15;185(8):825-34. PMID: 22312013 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
5. D'Alessio FR, Tsushima K, Aggarwal NA, Files DC, **Garibaldi BT**, Mock JR, Eto Y, Avalos CR, Rodriguez JV, Reddy SP, Pearse DB, Sidhaye VK, Hassoun PM, Crow MT, King LS. Resolution of experimental lung injury by Monocyte-derived inducible nitric oxide synthase (iNOS). *Journal of Immunology*. 2012 Sep 1;189(5):2234-45. PMID: 228441172 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
6. \***Garibaldi BT**, D'Alessio FR, Mock JR, Files DC, Chau E, Eto Y, Drummond MB, Aggarwal NA, Sidhaye VK, King LS. Regulatory T cells Reduce Acute Lung Injury Fibroproliferation By Decreasing Fibrocyte Recruitment. *Am J Respir Cell Mol Biol*. 2013 Jan;48(1):35-43. PMID: 23002097 \*corresponding author
7. Aggarwal NR, D'Alessio FR, Eto Y, Chau E, Avalos CR, Waickman AT, **Garibaldi BT**, Mock JR, Files DC, Sidhaye VK, Polotsky VY, Powell J, Horton M, King LS. Macrophage adenosine receptor 2a (A2aR) protects against oxygen-induced augmentation of experimental lung injury. *Am J Respir Cell Mol Biol*. 2013 May;48(5):635-46. PMID: 23349051 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
8. Aggarwal NR, Chau E, **Garibaldi BT**, Mock JR, Sussan T, Rao K, Rao K, Menon AG, D'Alessio FR, Damarla M, Biswal S, King LS, Sidhaye VK. Aquaporin 5 regulates cigarette smoke induced emphysema by modulating barrier and immune properties of the epithelium. *Tissue Barriers*. 2013 Oct 1;1(4):e25248. PMID: 24665410 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
9. Aggarwal NR, Tsushima K, Eto Y, Tripathi A, Mandke P, Mock JR, **Garibaldi BT**, Singer BD, Sidhaye VK, Horton MR, King LS, D'Alessio FR. Immunological Priming Accelerates Resolution of Lung Inflammation by Macrophage-derived IL-10. *J Immunol*. 2014 May 1;192(9):4453-64. PMID: 24688024 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
10. Mock JR, **Garibaldi BT**, Aggarwal NR, Jenkins J, Limjunyawong N, Singer BD, Chau E, Rabold R, Files DC, Sidhaye V, Mitzner W, Wagner EM, King LS, D'Alessio FR. Foxp3+ regulatory T cells promote lung epithelial proliferation. *Mucosal Immunol*. 2014 Nov;7(6):1440-51. PMID: 24850425 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
11. Singer, BD, Mock JR, Aggarwal NR, **Garibaldi BT**, Sidhaye VK, Florez MA, Chau E, Gibbs KW, Mandke P, Tripathi A, Yegnasubramanian S, King LS, D'Alessio DR. Regulatory T Cell DNA Methyltransferase Inhibition Accelerates Resolution of Lung Inflammation. *Am J Respir Cell Mol Biol*. May;52(5):641-52. PMID: 25295995 (role: conducting of experiments, data analysis and interpretation, manuscript editing)

12. Files DC, Liu C, Pereyra A, Wang ZM, Aggarwal NR, D'Alessio FR, **Garibaldi BT**, Mock JR, Singer BD, Feng X, Yammani RR, Zhang T, Lee AL, Philpott S, Lussier S, Purcell L, Chou J, Seeds M, King LS, Morris PE, Delbono O. Therapeutic exercise attenuates neutrophilic lung injury and skeletal muscle wasting. *Sci Transl Med*. 2015 Mar 11;7(278). PMID: 25761888 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
13. D'Alessio F, Craig J, Singer B, Files DC, Mock J, **Garibaldi BT**, Fallica J, Tripathi A, Mandke P, Gans J, Limjunyawong N, Sidhaye V, Heller N, Mitzner W, King LS, Aggarwal N. Enhanced Resolution of Experimental ARDS through IL-4-Mediated Lung Macrophage Reprogramming. *Am J Physiol Lung Cell Mol Physiol*. 2016, April 15; 310(8) PMID: 26895644 (role: conducting of experiments, data analysis and interpretation, manuscript editing)
14. **\*Garibaldi BT**, Kelen GD, Brower RG, Bova G, Ernst N, Reimers M, Langlotz R, Gimburg A, Iati M, Smith C, MacConnell S, James H, Lewin JL, Trexler P, Black MA, Lynch C, Clarke W, Marzinske MA, Sokoll L, Carroll KC, Parrish NM, Dionne K, Biddison ELD, Gwon HS, Sauer L, Hill P, Newton SM, Garrett MR, Miller RG, Perl TM, Maragakis LL. The Creation of a Biocontainment Unit at a Tertiary Care Hospital: The Johns Hopkins Medicine Experience. *Annals of the American Thoracic Society*, 2016 May; 13(5): 600-608. PMID: 27057583 [SI/QI]  
\*corresponding author
15. Cater SW, Krishnan L, Grimm L, **Garibaldi BT**, Green I. Developing an Introductory Radiology Clerkship at Perdana University Graduate School of Medicine in Kuala Lumpur, Malaysia. *Health Professions Education*, 2017 Dec; 3(2), 113-117.
16. **\*Garibaldi BT**, Niessen T, Gelber AC, Clark B, Lee J, Madrazo JA, Manesh RS, Apfel A, Lau BD, Liu G, Canzoniero JV, Sperati CJ, Yeh HC, Brotman DJ, Traill TA, Cayea D, Durso SC, Stewart RW, Corretti MC, Kasper EK, Desai SV. A Novel Bedside Cardiopulmonary Physical Diagnosis Curriculum for Internal Medicine Postgraduate Training. *BMC Medical Education*, 2017 Oct; 17(182). PMID 28985729 \*corresponding author
17. **\*Garibaldi BT**, Reimers M, Ernst N, Bova G, Nowakowski E, Bukowski J, Ellis BC, Smith C, Sauer L, Dionne K, Carroll KC, Maragakis LL, Parrish NM. Validation of Autoclave Protocols for Successful Decontamination of Category A Medical Waste Generated from Care of Patients with Serious Communicable Diseases. *J Clin Microbiol*. 2017 Feb;55(2):545-551. doi: 10.1128/JCM.02161-16. Epub 2016 Dec 7. PMID: 27927920; PMCID: PMC5277525.  
\*corresponding author
18. Sauer LM, Drewry III D, Shaw-Saliba K, Therkorn J, Pilholski T, Rainwater-Lovett K, **Garibaldi BT**. A Novel Approach to Identify Potential Provider and Environmental Contamination in a Clinical Biocontainment Unit Using Aerosolized Pathogen Simulants. *Health Security*, 2018 Mar/Apr; 16(2). PMID 29624490
19. Therkorn J, Drewry III D, Pilholski T, Shaw-Saliba K, Bova G, Maragakis L, **Garibaldi BT**, Sauer LM. Impact of Air Handling System Exhaust Failure on Dissemination Pattern of Simulant Pathogen Particles in a Clinical Biocontainment Unit. *Indoor Air*, 2018, Sep 7. PMID: 30192404
20. **Garibaldi BT**, Ruparella C, Shaw-Saliba K, Sauer LM, Maragakis LL, Glancey M, Subah M, Nelson AR, Wilkason C, Litwin L, Osei P, Yazdi Y. A novel PPE coverall was rated higher than standard Ebola PPE in terms of comfort, mobility and perception of safety when tested by healthcare workers in Liberia and in a US Biocontainment Unit. *Am J Infect Control*, 2018, Oct 6. PMID: 30301656
21. Kogutt B, Sheffield J, Maragakis LL, Golden C, **Garibaldi BT**. Simulation of a Spontaneous Vaginal Delivery and Neonatal Resuscitation in a Biocontainment Unit. *Health Security*, 2019 Jan/Feb; 17(1):18-26. PMID: 30779606
22. Sauer LM, Romig M, Andonian J, Flinn JB, Hynes N, Maloney R, Maragakis LL, **Garibaldi BT**. Application of the Incident Command System to the Hospital Biocontainment Unit Setting. *Health Security*, 2019 Jan/Feb; 17(1):27-34. PMID:30779610
23. Boyce A, **Garibaldi BT**. Host genetic information about high-consequence infections: emerging science, anticipatory ethics. *Health Security*, 2019 Jan/Feb; 17(1):62-68. PMID:30724614
24. Andonian J, Galusha K, Maragakis LL, **Garibaldi BT\***. The impact of high-level isolation units beyond high consequence pathogen preparedness. *Health Security*, 2019 Jan/Feb; 17(1):69-73. PMID: 30779609 \*corresponding author
25. Goyal A, **Garibaldi B**, Liu G, Desai S, Manesh R. Morning report innovation: Case Oriented Report and Exam Skills. *Diagnosis (Berl)*. 2019 Mar 22. PMID: 30901311
26. D'Souza T, Rosen M, Bertram AK, Apfel A, Desai SV, **Garibaldi BT\***. The use of a real-time location system (RTLS) to understand resident location in an academic medical center. *J Grad Med Educ*, 2019 Jun;11(3):324-327. PMID: 31210865 \*corresponding author
27. Therkorn J, Drewry D, Andonian J, Benishek L, Billman C, Forsyth ER, **Garibaldi BT**, Nowakowski E, Rainwater-Lovett K, Sauer L, Schiffhauer M, Maragakis LL. 2019. Development and Comparison of Complementary Methods to Study Potential Skin and Inhalational Exposure to Pathogens During Personal Protective Equipment Doffing. *Clinical Infectious Diseases*, 2019 Oct; 69, Issue Supplement\_3, S231–S240. PMID: 31517983
28. Andonian J, Kazi S, Therkorn J, Benishek L, Billman C, Schiffhauer M, Nowakowski E, Osei P, Gurses AP, Hsu YJ, Drewry D, Forsyth ER, **Garibaldi BT**, Rainwater-Lovett K, Trexler P, Maragakis LL. 2019. Effect of an Intervention

- Package and Teamwork Training to Prevent Healthcare Personnel Self-Contamination During Personal Protective Equipment Doffing. *Clinical Infectious Diseases*, 2019 Oct; 69, Issue Supplement\_3, S248–S255. PMID: 31517976
29. Clark BW, Lee YZ, Niessen T, Desai SV, **Garibaldi BT**. Assessing physical examination skills using direct observation and volunteer patients. *Diagnosis*. 13 March 2020. PMID: 32167926
  30. Lin CT, Czarny MJ, Hussien A, Hasan RK, **Garibaldi BT**, Fishman EK, Resar JR, Zimmerman SL. Fibrotic Lung Disease at CT Predicts Adverse Outcomes in Patients Undergoing Transcatheter Aortic Valve Replacement. *Radiology: Cardiothoracic Imaging*. Volume 2, Issue 2, Apr 1 2020.
  31. Flinn JB, Benza JJ, Sauer LM, Sulmonte C, Hynes NA, **Garibaldi BT\***. (2020). "The Risk of Not Being Ready: A Novel Approach to Managing Constant Readiness of a High-Level Isolation Unit During Times of Inactivity." *Health Security* 18(3): 212-218. PMID: 32559152. \*corresponding author
  32. Flinn JB, Hynes NA, Sauer LM, Maragakis LL, **Garibaldi BT\***. The role of dedicated biocontainment patient care units in preparing for COVID-19 and other infectious disease outbreaks. *Infect Control Hosp Epidemiol*. 2021 Feb;42(2):208-211. doi: 10.1017/ice.2020.451. Epub 2020 Sep 4. PMID: 32883382; PMCID: PMC7503040. \*corresponding author
  33. **Garibaldi BT\***, Fiksel J, Muschelli J, Robinson ML, Rouhizadeh M, Perin J, Schumock G, Nagy P, Gray JH, Malapati H, Ghobadi-Krueger M, Niessen TM, Kim BS, Hill PM, Ahmed MS, Dobkin ED, Blanding R, Abele J, Woods B, Harkness K, Thiemann DR, Bowring MG, Shah AB, Wang MC, Bandeen-Roche K, Rosen A, Zeger SL, Gupta A. Patient Trajectories Among Persons Hospitalized for COVID-19 : A Cohort Study. *Ann Intern Med*. 2020 Sep 22. doi: 10.7326/M20-3905. Epub ahead of print. PMID: 32960645.\*corresponding author (JH-CROWN Registry)
  34. Kreps S, Prasad S, Brownstein JS, Hswen Y, **Garibaldi BT**, Zhang B, Kriner DL. Factors Associated With US Adults' Likelihood of Accepting COVID-19 Vaccination. *JAMA Netw Open*. 2020;3(10):e2025594. doi:10.1001/jamanetworkopen.2020.25594 PMID: 33079199
  35. Geller G DP, Thio CL, Mathews D, Kahn JP, Maragakis L, **Garibaldi BT**. Genomics in the Era of COVID-19: Ethical Implications for Clinical Practice and Public Health. *Genome Medicine*. 2020 Nov 9; 12(1). PMID: 33168072
  36. Kalil AC, Patterson TF, Mehta AK, et al (ACTT-2 Study Group\*). Baricitinib plus Remdesivir for Hospitalized Adults with Covid-19 [published online ahead of print, 2020 December 11]. *N Engl J Med*. 2020 (\*BTG is a site co-investigator for ACTT-2) PMID: 33306283
  37. Ignatius EH, MD, MSc, Wang K, Karaba A, Robinson M, Avery RK, Blair P, Chida N, Jain T, Petty BG, Siddiqui Z, Melia MT, Auwaerter PG, Xu Y, **Garibaldi BT**. Tocilizumab for the treatment of COVID-19 among hospitalized patients: A matched retrospective cohort analysis. *Open Forum Infect Dis*. 2020 Dec 28;8(1). PMID: 33537364 (JH-CROWN Registry).
  38. Casciola-Rosen L, Thiemann DR., Andrade F, Trejo Zambrano MI, Hooper JE, Leonard E, Spangler J, Cox AL, Machamer C, Sauer L, Laeyendecker O, **Garibaldi BT**, Ray SC, Mecoli C, Christopher-Stine L, Gutierrez-Alamillo L, Yang Q, Hines D, Clarke W, Rothman RE, ...Rosen A. (2020). IgM autoantibodies recognizing ACE2 are associated with severe COVID-19. medRxiv : the preprint server for health sciences, 2020.
  39. Avery, R.K., Chiang, T.P.-Y., Marr, K.A., Brennan, D.C., Sait, A.S., **Garibaldi, B.T.**, Shah, P., Ostrander, D., Mehta Steinke, S., Permpalung, N., Cochran, W., Makary, M.A., Garonzik-Wang, J., Segev, D.L. and Massie, A.B. (2021), Inpatient COVID-19 Outcomes in Solid Organ Transplant Recipients Compared to Non-Solid Organ Transplant Patients: A Retrospective Cohort. *American Journal of Transplantation* <https://doi.org/10.1111/ajt.16431> [published online ahead of print, 2020, December 7] PMID: 33284498 (JH-CROWN Registry).
  40. Bowring MG, Wang Z, Xu Y, Betz J, Muschelli J, **Garibaldi BT\***, Zeger SL. Outcome-Stratified Analysis of Biomarker Trajectories for Patients Infected With Severe Acute Respiratory Syndrome Coronavirus 2. *Am J Epidemiol*. 2021 Oct 1;190(10):2094-2106. doi: 10.1093/aje/kwab138. PMID: 33984860; PMCID: PMC8241476. \*Co-senior author. (JH-CROWN Registry)
  41. Andersen KM, Mehta HB, Palamuttam N, Ford D, **Garibaldi BT**, Auwaerter PG, Segal J, Alexander GC. Association Between Chronic Use of Immunosuppressive Drugs and Clinical Outcomes From Coronavirus Disease 2019 (COVID-19) Hospitalization: A Retrospective Cohort Study in a Large US Health System, *Clinical Infectious Diseases*. [published online ahead of print, 2021 Jan 7] (JH-CROWN Registry) PMID: 33410884
  42. Bennett TD, Moffitt RA, Hajagos JG, Amor B, Anand A, Bissell MM, Bradwell KR, Bremer C, Byrd JB, Denham A, DeWitt PE, Gabriel D, **Garibaldi BT**, Girvin AT, Guinney J, Hill EL, Hong SS, Jimenez H, Kavuluru R, Kostka K, Lehmann HP, Levitt E, Mallipattu SK, Manna A, McMurry JA, Morris M, Muschelli J, Neumann AJ, Palchuk MB, Pfaff ER, Qian Z, Qureshi N, Russell S, Spratt H, Walden A, Williams AE, Wooldridge JT, Yoo YJ, Zhang XT, Zhu RL, Austin CP, Saltz JH, Gersing KR, Haendel MA, Chute CG; National COVID Cohort Collaborative (N3C) Consortium. Clinical Characterization and Prediction of Clinical Severity of SARS-CoV-2 Infection Among US Adults Using Data From the US National COVID Cohort Collaborative. *JAMA Netw Open*. 2021 Jul 1;4(7):e2116901. doi: 10.1001/jamanetworkopen.2021.16901. PMID: 34255046; PMCID: PMC8278272.

43. Boulanger M, Molina E, Wang K, Kickler T, Xu Y, **Garibaldi BT**. Peripheral Plasma Cells Associated with Mortality Benefit in Severe COVID-19: A Marker of Disease Resolution. *Am J Med.* 2021 Aug;134(8):1029-1033. doi: 10.1016/j.amjmed.2021.01.040. Epub 2021 Mar 31. PMID: 33811876; PMCID: PMC8010346. (JH-CROWN Registry).
44. Gerber JE, Geller G, Boyce A, Maragakis LL, **Garibaldi BT\***. Genomics in Patient Care and Workforce Decisions in High-Level Isolation Units: A Survey of Healthcare Workers. *Health Secur.* 2021 May-Jun;19(3):318-326. doi: 10.1089/hs.2020.0182. Epub 2021 Apr 6. PMID: 33826422; PMCID: PMC8217591. \*corresponding author
45. Al-Samkari H, Gupta S, Leaf RK, Wang W, Rosovsky RP, Brenner SK, Hayek SS, Berlin H, Kapoor R, Shaefi S, Melamed ML, Sutherland A, Radbel J, Green A, **Garibaldi BT**, Srivastava A, Leonberg-Yoo A, Shehata AM, Flythe JE, Rashidi A, Goyal N, Chan L, Mathews KS, Hedayati SS, Dy R, Toth-Manikowski SM, Zhang J, Mallappallil M, Redfern RE, Bansal AD, Short SAP, Vangel MG, Admon AJ, Semler MW, Bauer KA, Hernán MA, Leaf DE. Thrombosis, Bleeding, and the Observational Effect of Early Therapeutic Anticoagulation on Survival in Critically Ill Patients With COVID-19. *Ann Intern Med.* 2021 Jan 26. doi: 10.7326/M20-6739. Epub ahead of print. PMID: 33493012.
46. Karaba SM, Jones G, Helsel T, Smith LL, Avery R, Dzintars K, Salinas AB, Keller SC, Townsend JL, Klein E, Amoah J, **Garibaldi BT**, Cosgrove SE, Fabre V. Prevalence of Co-infection at the Time of Hospital Admission in COVID-19 Patients, A Multicenter Study. *Open Forum Infect Dis.* 2020 Dec 21;8(1). PMID: 33447639 (JH-CROWN Registry).
47. **Garibaldi BT\***, Wang K, Robinson ML, Zeger SL, Bandeen-Roche K, Wang MC, Alexander GC, Gupta A, Bollinger R, Xu Y. Comparison of Clinical Improvement of Treatment With or Without Remdesivir Among Hospitalized Patients With COVID-19. *JAMA Open Network.* 2021 Mar 1;4(3):e213071. doi: 10.1001/jamanetworkopen.2021.3071. PMID: 33760094 \* corresponding author (JH-CROWN Registry).
48. Wongvibulsin S, **Garibaldi BT**, Antar AR, Wen J, Wang MC, Gupta A, Bollinger R, Xu Y, Wang K, Betz JF, Muschelli J, Roche KB, Zeger SL, Robinson ML. Development of Severe COVID-19 Adaptive Risk Predictor (SCARP), a calculator to predict severe disease or death in hospitalized patients with COVID-19. *Ann Intern Med.* 2021 Mar 2. doi: 10.7326/M20-6754. Online ahead of print. PMID: 33646849 (JH-CROWN Registry).
49. Jeffers JM, Bord S, Hooper JE, Fleishman C, Cayea D, **Garibaldi B**. End-of-Life Care: A Multimodal and Comprehensive Curriculum for Graduating Medical Students Utilizing Experiential Learning Opportunities. *MedEdPORTAL.* 2021 Apr 27;17:11149. doi: 10.15766/mep\_2374-8265.11149. PMID: 33928187; PMCID: PMC8076371.
50. Brenner DS, Liu GY, Omron R, Tang O, **Garibaldi BT**, Fong TC. Diagnostic accuracy of lung ultrasound for SARS-CoV-2: a retrospective cohort study. *Ultrasound J.* 2021 Mar 1;13(1):12. PMID: 33644829.
51. Kotwal S, Fanai M, Fu W, Wang Z, Bery AK, Omron R, Tevzadze N, Gold D, **Garibaldi BT**, Wright SM, Newman-Toker DE. Real-world virtual patient simulation to improve diagnostic performance through deliberate practice: a prospective quasi-experimental study. *Diagnosis (Berl).* 2021 Mar 5. doi: 10.1515/dx-2020-0127. Epub ahead of print. PMID: 33675203.
52. Scully EP, Schumock G, Fu M, Massaccesi G, Muschelli J, Betz J, Klein EY, West NE, Robinson M, **Garibaldi BT**, Bandeen-Roche K, Zeger S, Klein SL, Gupta A. Sex and Gender Differences in Testing, Hospital Admission, Clinical Presentation, and Drivers of Severe Outcomes From COVID-19. *Open Forum Infect Dis.* 2021 Aug 31;8(9):ofab448. doi: 10.1093/ofid/ofab448. PMID: 34584899; PMCID: PMC8465334.
53. **Garibaldi BT**, Chisolm MS, Berkenblit GV, Feller-Kopman D, Stephens RS, Stewart RW, Wright SM. Review of the published literature to characterise clinical excellence in COVID-19 care. *Postgrad Med J.* 2021 May 26;postgradmedj-2021-140002. doi: 10.1136/postgradmedj-2021-140002. Epub ahead of print. PMID: 34039705.
54. Minhas AS, Gilotra NA, Goerlich E, Metkus T, **Garibaldi BT**, Sharma G, Bavaro N, Phillip S, Michos ED, Hays AG. Myocardial Work Efficiency, A Novel Measure of Myocardial Dysfunction, Is Reduced in COVID-19 Patients and Associated With In-Hospital Mortality. *Front Cardiovasc Med.* 2021 Jun 14;8:667721. doi: 10.3389/fcvm.2021.667721. PMID: 34195234; PMCID: PMC8236710.
55. Gupta S, Wang W, Hayek SS, Chan L, Mathews KS, Melamed ML, Brenner SK, Leonberg-Yoo A, Schenck EJ, Radbel J, Reiser J, Bansal A, Srivastava A, Zhou Y, Finkel D, Green A, Mallappallil M, Faugno AJ, Zhang J, Velez JCQ, Shaefi S, Parikh CR, Charytan DM, Athavale AM, Friedman AN, Redfern RE, Short SAP, Correa S, Pokharel KK, Admon AJ, Donnelly JP, Gershengorn HB, Douin DJ, Semler MW, Hernán MA, Leaf DE; STOP-COVID Investigators. Association Between Early Treatment With Tocilizumab and Mortality Among Critically Ill Patients With COVID-19. *JAMA Intern Med.* 2021 Jan 1;181(1):41-51. doi: 10.1001/jamainternmed.2020.6252. Erratum in: *JAMA Intern Med.* 2021 Apr 1;181(4):570. PMID: 33080002; PMCID: PMC7577201 (\***BTG** is a site co-investigator for STOP COVID).
56. Burnim MS, Wang K, Checkley W, Nolley EP, Xu Y, **Garibaldi BT**. The Effectiveness of High-Flow Nasal Cannula in Coronavirus Disease 2019 Pneumonia: A Retrospective Cohort Study. *Crit Care Med.* 2022 Mar 1;50(3):e253-e262. doi: 10.1097/CCM.0000000000005309. PMID: 34637419; PMCID: PMC8855780.

57. Mehta HB, An H, Andersen KM, Mansour O, Madhira V, Rashidi ES, Bates B, Setoguchi S, Joseph C, Kocis PT, Moffitt R, Bennett TD, Chute CG, **Garibaldi BT**, Alexander GC; National COVID Cohort Collaborative (N3C). Use of Hydroxychloroquine, Remdesivir, and Dexamethasone Among Adults Hospitalized With COVID-19 in the United States : A Retrospective Cohort Study. *Ann Intern Med.* 2021 Oct;174(10):1395-1403. doi: 10.7326/M21-0857. Epub 2021 Aug 17. PMID: 34399060; PMCID: PMC8372837.
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#### Essay/Opinion Piece/Perspective [E/OP]

1. Russell S and **Garibaldi BT**. The Other Sylvian Fissure: Exploring the Divide Between Traditional and Modern Bedside Rounds. *South Med J*, 2016 Dec;109(12):747-749. PMID: 27911965 [Expert Opinion]
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#### Media Releases or Interviews

- 1/24/2020 Interviewed by Associated Press. [Too soon to tell if new virus as dangerous as SARS cousin](#) (online story).
- 1/24/2020 Interviewed by National Geographic. [How the coronavirus outbreak in China impacts Lunar New Year travel](#) (online story).
- 1/26/2020 Interviewed by the Pioneer. [New coronavirus as dangerous as SARS? No clarity yet](#) (online story).
- 1/27/2020 Interviewed by Consumer Report. [What You Need to Know About the Wuhan Coronavirus](#) (online story).
- 1/27/2020 Interviewed by CBS WBOC. [Johns Hopkins Specialized Unit](#) (TV segment on local TV news).
- 1/27/2020 Interviewed by CBS13 WJZ. [With Coronavirus Cases Growing, Johns Hopkins Specialized Unit Prepared To Take Patients](#) (TV segment on local TV news).
- 1/27/2020 Interviewed by CBS DC [Specialized Unit at Johns Hopkins Prepared to Take Coronavirus Case](#) (TV segment on local TV news).
- 1/29/2020 Interviewed by Baltimore Sun. [Coronavirus preparation underway at Maryland hospitals and schools as state awaits results of first test](#) (newspaper article).
- 1/29/2020 Interviewed by WTOP. [Coronavirus? Johns Hopkins doctor says you're more likely to get the flu](#) (online story).
- 1/29/2020 Live appearance on the Kojo Nnamdi show. WAMU-FM/D.C. [Combating the coronavirus in the capital](#) (radio appearance).
- 1/29/2020 Interviewed by Baltimore Sun. [What is coronavirus and what precautions should people be taking?](#) (newspaper article).
- 1/29/2020 Interviewed by Capital Gazette. [Coronavirus preparation underway at Maryland hospitals and schools as state awaits results of first test](#) (online story with print and video interview).
- 1/29/2020 Interviewed by Long Room News. [Coronavirus? Johns Hopkins doctor says you're more likely to get the flu](#) (online story).
- 1/29/2020 Interview by The World News [Coronavirus? Johns Hopkins doctor says you're more likely to get the flu](#) (online story).
- 1/30/2020 Live appearance on Sky News (U.K.) [Interview with Dr. Brian Garibaldi](#) (Live international TV appearance).
- 2/21/2020 Interviewed by [WUSA TV DC](#) (local TV news broadcast).
- 2/26/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 2/27/2020 Interviewed with PBS News Hour, Business Insider and Agence France-Press (online story).
- 2/28/2020 Interviewed by KNX LA radio about COVID-19 (live radio broadcast).

3/4/2020 Interviewed by WUSA TV (Local TV news special about COVID-19).

3/4/2020 Interviewed by [60 Minutes](#) about the BCU (opening segment about BCU).

3/11/2020 Interviewed by NRK (Norwegian PBS), Channel 4 News (UK-based NBC affiliate), Univision (National), Telemundo (DC) and Science News (National) about the BCU (Segment on TV news programs on all channels).

3/26/2020 Interviewed by [CNN](#) about hydroxychloroquine study and COVID-19 experience (aired on the Anderson Cooper show).

3/27/2020 Interviewed by the [Wall Street Journal](#) about COVID-19 pathobiology (newspaper article).

4/8/2020 Interviewed by [Baltimore Sun](#) about COVID-19 in Maryland (newspaper article)

4/8/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

4/22/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

5/3/2020 Featured on front page article in [Baltimore Sun](#) about frontline COVID-19 care (newspaper article).

5/6/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

5/22/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

6/4/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

6/12/2020 Interviewed by WJZ TV. [Marathon Runner In Peak Physical Condition Hospitalized By COVID-19; Now On The Road To Recovery](#) (Segment on TV news and online story).

6/19/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

6/23/2020 Interviewed by WJZ. [Howard County couple treated together for coronavirus now back home recovering](#) (segment on local TV news.)

6/24/2020 Interviewed by [Science News](#) for article on dexamethasone (online article).

7/15/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

7/24/2020 [Medscape interview](#) about communication with ICU families (online article).

8/3/2020 Interviewed by [Washington Post](#) on safety of air travel in the pandemic (newspaper article)

8/6/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

8/8/2020 Interviewed by FOX45 about COVID-19 (TV news segment).

8/11/2020 Interviewed by WBAL News Radio Rob Lang about COVID-19 (live radio interview).

8/26/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

8/30/2020 Interviewed by [Fox News](#) about lung transplant and COVID-19. [Will some COVID-19 survivors require a lung transplant to fully recover?](#) (online article).

9/1/2020 Interviewed by Fox news. [People in their 20s, 30s and 40s' becoming key spreaders of COVID-19, experts say](#) (TV news segment).

9/4/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

9/17/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

9/19/2020 Interviewed by the Providence Journal. [Many unanswered questions as New England nears flu season amid coronavirus pandemic](#) (online article).

9/23/2020 Interviewed by Johns Hopkins Media. [Johns Hopkins Researchers Publish COVID-19 'Prediction Model'](#) (online article).

9/23/2020 Interviewed by WJZ CBS Baltimore. [Johns Hopkins Researchers Release Model That Aims To Forecast Whether A COVID-19 Patient's Condition Will Improve, Deteriorate](#) (TV news segment).

9/28/2020 Interviewed by Medscape. [Model Predicts Severe Disease in Those With COVID-19](#) (online article).

10/3/2020 Featured in article by WJZ CBS Baltimore. [Johns Hopkins Doctor Among Those Assisting With COVID-19 Treatment Plan For President Trump](#) (online article).

10/3/2020 [Live press conference](#) regarding the care of President Trump (featured on multiple stations and newsfeeds internationally).

10/4/2020 [Live press conference](#) regarding the care of President Trump (featured on multiple stations and newsfeeds internationally).

10/5/2020 [Live press conference](#) regarding the care of President Trump (featured on multiple stations and newsfeeds internationally).

10/9/2020 Hopkins Medicine Matters Blog. [Garibaldi Treats President Trump](#) (online article).

10/15/2020 Interviewed by AARP. [How Coronavirus Drugs Are Helping Patients \(online article\)](#).

10/20/2020 Hopkins History Moments. [Neil A. Grauer tells the story of Johns Hopkins physicians who have served U.S. presidents and their families.](#) (online article).

10/22/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

10/28/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

11/3/2020 Interviewed by [Fox news](#) about the Great Barrington Declaration (online story).

11/13/2020 Interviewed by [Washington Post](#) about COVID-19 risk trackers (newspaper article).

11/16/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).

- 11/18/2020 Prepared story on Thanksgiving planning with [Hopkins](#) media.
- 12/7/2020 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 1/4/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 1/25/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 2/22/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 3/11/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 3/24/2021 Manuscript on remdesivir featured on [CNN](#).
- 3/24/2021 Interview by CNN. [https://www.cnn.com/world/live-news/coronavirus-pandemic-vaccine-updates-03-24-21/h\\_1435af98b8ac1a5c8d8b8b6a77e11591](https://www.cnn.com/world/live-news/coronavirus-pandemic-vaccine-updates-03-24-21/h_1435af98b8ac1a5c8d8b8b6a77e11591)
- 4/5/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 5/24/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 6/4/2021 Physician and Musician: Johns Hopkins Doctor Brings Passion for Music to Medicine During Pandemic. [Featured on Mirage News](#).
- 6/5/2021 Doctor brings passion for music to medicine. [Live interview](#) including guitar performance on NewsNowFox.
- 6/21/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 8/23/2021 Winning in Medicine: Victories Large and Small- Even when times are tough, there's still hope. Anamnesis. Medscape Podcast hosted by Amy Faith Ho.
- 9/1/2021 Clinicians at Johns Hopkins Create Artful Collaboration: Poetry and music to mark a year of pandemic. Hospital Employee Health. September 2021, Vol. 40, No. 9, p 97-108
- 12/7/2021 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 1/4/2022 Live appearance on [Yahoo Finance](#) (online news program –100 million international viewers monthly).
- 1/7/2022 Article in the American Board of Medical Specialties (ABMS) newsletter. Visiting Scholars Program Inspired and Opened Doors for Physician on the COVID-19 Frontlines.
- 1/18/2022 [“I planned a trip to a country the CDC labeled 'Do not travel'. Should I cancel?”](#) Lonely planet website.
- 5/31/2022 [Pulse Oximeters Are Less Accurate Among Black, Hispanic and Asian Covid-19 Patients: Devices flag low oxygen levels more reliably in white patients, according to study.](#) The Wall Street Journal.
- 5/31/2022 [Faulty oxygen readings delayed Covid treatments for darker-skinned patients, study finds.](#) STAT news (online story).
- 6/2/2022 [Faulty pulse oximeter readings delayed life-saving treatments for Black COVID-19 patients, research finds.](#) Insider (online story).
- 6/5/2022 [Inaccurate pulse oximeter measurements delayed COVID treatment for people of color.](#) NPR’s Weekend Edition. (radio broadcast).
- 6/7/2022 [Study: Ineffective blood oxygen readers have endangered Black and Latino Covid patients.](#) NBC News (online story).
- 6/17/2022 [Racial, ethnic biases in pulse oximetry accuracy may have delayed COVID-19 treatment for some.](#) Healio News (online story).
- 6/29/2022 [The problem with pulse ox.](#) ACP Hospitalist (online story).
- 7/2/2022 [Flawed oxygen readings may be behind Covid-19’s toll on people of color.](#) Politico Magazine (online story).
- 8/28/2022 [Did a flawed pandemic tool lead to more deaths among Blacks, Hispanics? N.J. docs call for answers.](#) New Jersey.com (online story).
- 10/31/2022 [Telltale signs of a ‘triple-demic.’](#) Hopkins Hub (online story).
- 4/16/2023 [Why the World’s Most Deadly Viruses Are Becoming More Dangerous.](#) The Daily Beast.
- 9/27/2023 [Posts mislead on Mayo Clinic’s hydroxychloroquine webpage.](#) The Associated Press.

## Other Media

1. Garibaldi BT, Masur S, Watto M, Williams P, Brigham S, Berk J. Physical Exam Series: Approach to Shortness of Breath. The Curbsiders Internal Medicine Podcast. <https://www.thecurbsiders.com>. 13 Oct 2020. [podcast]
2. Public Health on Call Podcast with Josh Sharfstein - <http://johnshopkinsph.libsyn.com/what-its-like-to-treat-patients-with-covid-19a-doctors-perspective>. 28 March 2020.
3. Anesthesia and Critical Care Reviews and Commentary (ACCRAC). Lessons from COVID patients in the ICU. <http://accrac.com/episode-170-lessons-from-40-covid-patients-in-the-icu-with-brian-garibaldi/>. 4 April 2020
4. Center Maryland “The Conference Call” Podcast with Damien O’Dougherty. <https://the-conference-call.simplecast.com/episodes/04-dr-brian-garibaldi-on-the-view-of-covid-19-from-the-johns-hopkins-biocontainment-unit>. 6 May 2020.

5. Johns Hopkins Medicine Podcast. [Less Death and Fewer Hospitalizations](#). 19 Oct, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
6. Johns Hopkins Medicine Podcast. [No Symptoms](#). 19 Oct, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
7. Johns Hopkins Medicine Podcast. [Covid Upside](#). 19 Oct, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
8. Johns Hopkins Medicine Podcast. [Covid Calculations](#). 19 Oct, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
9. Johns Hopkins Medicine Podcast. [Antibodies and Covid](#). 1 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
10. Johns Hopkins Medicine Podcast. [Using Antibodies](#). 1 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
11. Johns Hopkins Medicine Podcast. [Other Covid Drugs](#). 1 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
12. Johns Hopkins Medicine Podcast. [Oxygen and ICUs](#). 1 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
13. Johns Hopkins Medicine Podcast. [Virus Challenge](#). 1 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
14. Johns Hopkins Medicine Podcast. [New Variants](#). 8 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
15. Johns Hopkins Medicine Podcast. [Saliva Testing](#). 8 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
16. Johns Hopkins Medicine Podcast. [Vaccine Trials](#). 8 Feb, 2021 (Broadcast nationally on CBS Radio, Voice of America, and a host of radio stations and syndicates nationally and internationally).
17. When the Dust Settles. Original Poem by Robin Lewis-Cherry set to original music by Brian Garibaldi. <https://www.youtube.com/watch?v=4iLhMr0-FcE>.
18. **Garibaldi, B.** Resuscitating the Bedside Clinical Examination. *AudioDigest Emergency Medicine* 38:17 (September 7) 2021
19. **Garibaldi, B.** Connecting with Patients: The Healing Power of Music. CLOSLER: Moving us Closer to Osler. <https://closler.org/connecting-with-patients/the-healing-power-of-music>.
20. ABMS Visiting Scholars Website. <https://www.abms.org/news-events/visiting-scholars-program-inspired-and-opened-doors-for-physician-on-the-covid-19-frontlines/>
21. Public Health on Call Podcast with Stephanie Desmon - Advances in Treating Hospitalized COVID Patients. <https://johnshopkinssph.libsyn.com/459-advances-in-treating-hospitalized-covid-patients>, April 22, 2022.
22. How a biocontainment unit helped lead to the response to COVID-19. Interview with Ralph Hruban at Johns Hopkins. <https://youtu.be/spw17rgvieg>, August 21, 2023.

## FUNDING

### EXTRAMURAL Funding

#### Research Extramural Funding

##### *Current*

08/01/19-7/31/25      The Graduate Medical Laboratory (GEL)  
 American Medical Association (AMA) Reimagining Residency Initiative  
 Total Direct Cost: \$1,800,000  
 Role: PI: 12.5%

This grant is one of 8 awarded as part of the AMA's Reimagining Residency initiative. The goal of our project is to explore the relationship of modifiable factors in the training environment with the primary outcome of wellness/burnout, and the secondary outcome of clinical skill. This grant is a partnership with the internal medicine residency programs at The Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, Stanford University and the University of Alabama at Birmingham.

##### *Previous*

5/1/21-6/30/2023 CURE-ID  
Food and Drug Administration (FDA)  
Total Direct Cost: \$900,000  
PI: Matt Robinson  
Role: Co-Investigator: 5%

The goal of this proposal is to develop a mechanism to convert electronic health record data from any health system into a common data language in order to create a large data repository of drugs prescribed in hospitals across the United States. This data repository can then be used to conduct research on the potential therapeutics of commonly prescribed drugs for off-label indications.

7/1/2021-6/30/2023 Validation of the COVID-19 Inpatient Risk Calculator (CIRC) to predict severe disease or death  
NIH Loan Repayment Program  
National Institutes of Health  
Total Direct Cost: \$23,364.52  
Role: PI

The goal of this proposal is to develop and validate a prediction model that can forecast the trajectory of a patient hospitalized with COVID-19.

11/1/2021-6/1/2023 COVID-19 Precision Medicine Excellence Research  
John Templeton Foundation  
Total Direct Costs: \$100,000  
Role: PI: 5%

The goal of this work is to continuing to develop prediction models and conduct comparative effectiveness analyses to enhance our understanding of COVID-19 disease trajectory and treatment.

03/01/21 – 03/31/22 COVID-19 Outcomes among People with Disabilities  
Admin. Suppl. to R21AG060243-02S1  
NIH/NIA  
Total direct cost: \$100,000  
PI: Bonnie Swenor  
Role: Co-investigator: 3%

This project used the JH-CROWN COVID-19 patient registry to explore the impact of COVID-19 on people with disabilities by comparing outcomes among those with disabilities to patients without reported disabilities.

05/16/16 – 04/30/20 Ethical, Legal and Social Issues for Precision Medicine and Infectious Disease  
1RM1HG009038-01  
National Human Genome Research Institute  
Total direct cost: \$640,555  
Co-Principal Investigators: Gail Geller and Jeffrey Kahn  
Role: Co-Investigator: 5%

The Johns Hopkins University CEER, entitled “ELSI Issues in Applying ‘Precision Medicine’ to Infectious Disease” aims to anticipate and examine, from a “P5” perspective, the ethical, legal, social, historical and policy issues confronting the incorporation of genomics in the prevention, outbreak control, and treatment of a range of infectious diseases, and plan for the responsible translation of genomic advances into practice.

9/10-8/12 Regulatory Tcells and the Fibroproliferative Response to Acute Lung Injury  
F32HL104908  
National Institute of Health  
Total direct cost: \$188,648  
Role: PI: 80%

The goal of this proposal was to understand the role of Regulatory Tcells (Tregs) in the fibroproliferative response to ALI. Lymphocyte deficient, *Rag-1<sup>-/-</sup>* mice develop persistent injury and fibrosis after LPS-induced lung injury. Adoptive transfer of Tregs into *Rag-1<sup>-/-</sup>* mice restores normal resolution of lung injury and reduces fibroproliferation. We explored the cellular mechanisms that underlie this Treg-dependent resolution of fibroproliferation.

7/11-7/13                      Regulatory Tcells and Fibrocytes as Determinants of Fibroproliferation in Humans with ALI  
NIH Loan Repayment Program  
National Institute of Health  
Total direct cost: \$47,996.83  
Role: PI

The goal of this proposal was to develop an understanding of the role of fibrocytes in the fibroproliferative response to lung injury. We sought to extend our observations on the role of fibrocytes in a murine model of lung injury to human patients with ALI to provide proof of principle that fibrocytes are important in fibroproliferation in humans.

### **Educational Extramural Funding**

#### *Current*

7/21-6/27                      Society of Bedside Medicine Fellowship Program  
Gordon and Betty Moore Foundation  
Total Direct Cost: \$800,000  
Role: PI: 5%

This grant was awarded by the Gordon and Betty Moore Foundation, in partnership with the Society of Bedside Medicine, to create a bedside medicine fellows program. The grant will support 2 bedside fellows per year for each of the next 6 years. Fellows will engage in bedside medicine projects at their home institution and receive mentorship and support from the Society of Bedside Medicine. The overarching goal is to enrich a community of clinician educators dedicated to education, innovation and research on the role of the clinical encounter in 21<sup>st</sup> century medicine.

#### *Previous*

7/20- 7/21                      Project ECHO COVID-19 Education Project  
Robert Wood Johnson Foundation  
Total Direct Cost: \$75,000  
PI: Noreen Hynes  
Role: Co-Investigator: 5.5%

This grant was awarded as part of RWJF's COVID-19 initiative. The goal of this project is for the Johns Hopkins Bio-Containment Unit team to utilize the (Extended Community Health Outcomes) ECHO Project platform, established by the University of New Mexico Health Science Center, to provide an outlet for Region III frontline and assessment hospitals to discuss COVID-19 lessons learned and best practices.

9/18-3/20                      Maryland Department of Health Special Pathogens Training Program  
Total Direct Cost: \$800,000  
Role: PI: 10%

The goal of this training program is to help prepare Maryland state hospitals to provide care for patients infected with high consequence pathogens such as Ebola. We will train frontline hospital providers to identify, isolate and provide initial treatment for such patients. We will also host educational programs for providers at the five Special Pathogen Assessment Hospitals (SPAHS), as well as provide consultative services to help bolster their local preparedness efforts.

7/16-7/18                      Jeremiah Barondess Fellowship in the Clinical Transaction  
New York Academy of Medicine and the Accreditation Council for Graduate Medical Education

Total Direct Cost: \$50,000  
Role: PI: 7.5%

The goal of this proposal is to develop a robust physical diagnosis curriculum that will support the culture of bedside medicine at Hopkins and beyond. As part of this proposal, we will refine our current physical diagnosis curriculum, create a new bedside clinical skills assessment tool and develop an online portal to track utilization of tests such as echocardiograms and chest CTs by learners in the curriculum.

7/17-12/18                      Visiting Scholars Program, American Board of Medical Specialties  
Total Direct Cost: \$12,500  
Role: PI: 2%

The goal of this proposal is to modify our current bedside clinical assessment tool into a potential Maintenance of Certification (MOC) activity for internal medicine faculty. We have adapted the Practical Assessment of Clinical Examination Skills (PACES) assessment from the MRCP UK, to assess internal medicine resident physical exam skills. Through the visiting scholars program, I will create faculty development training materials and pilot the assessment with internal medicine faculty.

### **Clinical Extramural Funding**

#### *Current*

10/22-9/27                      Emerging Special Pathogen Treatment Center  
Administration for Strategic Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$6,000,000  
Role: Principal Investigator: 30%

The goal of this proposal is to continue to enhance the capabilities of the Johns Hopkins Hospital as the Ebola and Other Special Pathogen Treatment Center for Region 3 of the United States. This is a joint grant awarded to the Maryland State Department of Health and The Johns Hopkins Hospital. The grant will fund equipment and supplies needed to maintain the infrastructure of the Johns Hopkins Biocontainment Unit and will also fund ongoing training and preparedness activities.

7/23-6/24                      National Emerging Infectious Diseases Training and Education Center (NETEC) Supplement  
Assistant Secretary of Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$250,000  
Role: Principal Investigator: 2.5%

The goal of this proposal is to partner with the National Emerging Infectious Diseases Training and Education Center (NETEC) to assist with 1) the development and review of expert educational content and assessment metrics, and identification and translation of best practices related to emerging infectious diseases (EID) preparedness, 2) provide subject matter experts to assist with NETEC activities and to assess EID programs nationally, and 3) participate in the Special Pathogen Research Network (SPRN).

#### *Previous*

7/22-6/23                      National Emerging Infectious Diseases Training and Education Center (NETEC) Supplement  
Assistant Secretary of Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$250,000  
Role: Principal Investigator: 2.5%



The goal of this proposal is to partner with the National Emerging Infectious Diseases Training and Education Center (NETEC) to assist with 1) the development and review of expert educational content and assessment metrics, and identification and translation of best practices related to emerging infectious diseases (EID) preparedness, 2) provide subject matter experts to assist with NETEC activities and to assess EID programs nationally, and 3) participate in the Special Pathogen Research Network (SPRN).

7/20-7/22                      Ebola and Other Special Pathogen Treatment Center  
Assistant Secretary for Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$1,044,000  
Role: Co-Principal Investigator (with Lisa L. Maragakis): 30%

The goal of this proposal is to continue to enhance the capabilities of the Johns Hopkins Hospital as the Ebola and Other Special Pathogen Treatment Center for Region 3 of the United States. This is a joint grant awarded to the Maryland State Department of Health and The Johns Hopkins Hospital. The grant will fund equipment and supplies needed to maintain the infrastructure of the Johns Hopkins Biocontainment Unit and will also fund ongoing training and preparedness activities.

7/20-6/22                      COVID19 Administrative Supplement for HHS Region 3 Treatment Center  
Assistant Secretary for Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$585,000  
Role: PI: 6%

The goal of this proposal is to support COVID 19 Preparedness and Response activities at the local, state, and regional level through educational and operational support. This is a joint grant awarded to the Maryland State Department of Health and The Johns Hopkins Hospital. The grant will fund time and effort to develop educational materials and training capacity as well as strengthen operational and clinical readiness for COVID-19 patient care.

7/20- 6/22                      National Emerging Infectious Diseases Training and Education Center (NETEC) Supplement  
Assistant Secretary of Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$420,000  
Role: PI: 2.5%

The goal of this proposal is to partner with the National Emerging Infectious Diseases Training and Education Center (NETEC) to assist with 1) the development and review of expert educational content and assessment metrics, and identification and translation of best practices related to emerging infectious diseases (EID) preparedness, 2) provide subject matter experts to assist with NETEC activities and to assess EID programs nationally, and 3) participate in the Special Pathogen Research Network (SPRN).

7/15-7/20                      Ebola and Other Special Pathogen Treatment Center  
Assistant Secretary of Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$3,087,499  
Role: Co-Principal Investigator (with Lisa L. Maragakis): 30%

The goal of this proposal is to continue to enhance the capabilities of the Johns Hopkins Hospital as the Ebola and Other Special Pathogen Treatment Center for Region 3 of the United States. This is a joint grant awarded to the Maryland State Department of Health and Mental Hygiene and the Johns Hopkins Hospital. The grant will fund some of the capital equipment and renovations and that were necessary to create the new Johns Hopkins Biocontainment Unit and will also fund ongoing training and preparedness activities.

7/15-7/20                      State of Maryland, Ebola Treatment Center Award  
Assistant Secretary of Preparedness and Response

Department of Health and Human Services  
Total Direct Cost: \$1,000,000  
Co-Principal Investigator (with Lisa L. Maragakis): 5%

This proposal is designed to develop the capabilities of the Johns Hopkins Hospital to serve as an assessment and treatment hospital for Ebola and other special pathogens in the state of Maryland. This award complements the larger ASPR award to build capabilities as one of 10 new National Ebola and Special Pathogens Treatment Centers.

10/18-6/19                    An Expanded Access Treatment Protocol for ZMapp™ for Patients with Ebola Virus Disease (EVD) or Ebola Virus Exposure  
Biomedical Advanced Research and Development Authority (BARDA)  
Total Direct Cost: \$150,000  
PI: Lauren Sauer  
Role: Co-Investigator: 3%

4/15-10/15                    Ebola Healthcare Preparedness and Response for Select Hospital in Cities with Enhanced Airport Entrance Screenings from Affected Countries in West Africa  
Assistant Secretary of Preparedness and Response  
Department of Health and Human Services  
Total Direct Cost: \$62,500  
Role: Co-Principal Investigator (with Lisa L. Maragakis, MD MPH): 2%

This proposal supported the creation of an onsite laboratory within the newly created Johns Hopkins Biocontainment Unit, to enable safe laboratory testing for patients with Ebola virus and other highly infectious diseases.

## **INTRAMURAL Funding**

### **Research Intramural Funding**

#### *Previous*

1/2/18-12/31/19            Environmental transmission and traceability of aerosolized bio-simulants in a clinical biocontainment unit.  
  
Fisher Center Discovery Program (FCDP)  
Total Direct Cost: \$20,000  
Role: PI: 5%

This award funded the development and validation of a new methodology to track the movement of aerosolized particles in a biocontainment unit. This work will inform protocol development as well as the design and construction of biocontainment units by tracking DNA-labeled microbeads through the JHH BCU during simulated clinical care.

### **Educational Intramural Funding**

#### *Current*

7/18-6/25                    Douglas Carroll, MD Scholar  
Johns Hopkins Center for Innovative Medicine  
Total Direct Cost: \$400,000  
Role: PI: 5%

This award was created through a generous gift by Susan and Steven Immelt in honor of Susan's father Douglas Carroll. Dr. Carroll was a physician at City Hospital who was renowned for his bedside clinical skill. The award will support the expansion of the PI's clinical skills curriculum in the Osler Medical Residency Program to the Bayview Medical Residency Program. It will specifically help to incorporate point-of-care ultrasound (POCUS)

into the bedside program, as well as fund the development and validation of a novel bedside clinical skills assessment program.

#### *Previous*

7/16-7/17                      Berkheimer Faculty Education Scholar Award  
Johns Hopkins Institute for Excellence in Education  
Total Direct Cost: \$50,000  
Role: PI : 10%

The goal of this proposal was to develop a robust physical diagnosis curriculum to support the culture of bedside medicine at Hopkins and beyond. As part of this proposal, we refined our current physical diagnosis curriculum, created a new bedside clinical skills assessment tool and developed methodology to track utilization of tests such as echocardiograms and chest CTs by learners in the curriculum. I also engaged in a number of faculty development activities to support my long-term goals in medical education research and program development.

7/18-6/19                      The Women's Board of the Johns Hopkins Hospital Grant  
Total Direct Cost: \$64,020  
Role: PI: 0%

This grant, entitled "Handheld Ultrasound Devices to Improve the Patient Care Experience on the Osler Medical Service", will fund the purchase of 8 hand-carried ultrasound devices for use in our bedside medicine teaching program. This will complement the efforts of our IEE-funded grant to incorporate point-of-care ultrasound (POCUS) training into a comprehensive physical diagnosis program.

7/18-6/20                      Resident Readiness for Practice Challenge Grant  
Johns Hopkins Institute for Excellence in Education and the Office of Graduate Medical Education  
Total Direct Cost: \$95,000  
PI: Gigi Liu  
Role: Co-Investigator: 0%

The goal of this proposal is to development, implement, and assess the impact of a point of care ultrasound (POCUS) curriculum for internal medicine residents at The Johns Hopkins Hospital. The POCUS curriculum is part of a comprehensive physical diagnosis curriculum that incorporates advanced point of care technology with foundational physical exam techniques. We will develop novel methods of competency assessment and will measure the effect of the curriculum on resident attitudes, skills, behavior and clinical outcomes.

## **CLINICAL ACTIVITIES**

### [Clinical Focus](#)

I attend in the medical intensive care unit (MICU), where I care for patients with critical illness from a variety of etiologies. I attend on the Carol Johns Pulmonary Service where I care for patients with underlying lung disease and consult on patients in the hospital with respiratory issues. I also attend on the housestaff medical service where I care for patients with both acute and chronic illness who require admission to the hospital. As the Medical Director of the Johns Hopkins Biocontainment Unit (BCU), I help to coordinate and administer care for patients with serious communicable diseases that require admission to the BCU. Our team was the first to care for COVID-19 patients at The Johns Hopkins Hospital, and continues to be involved in frontline COVID care, education and operations. We are also involved in operations and education to help inpatient teams provide care for patients infected with monkeypox. Prior to COVID-19, my outpatient practice focused on patients with interstitial lung disease, (ILD), particularly those with inflammation secondary to autoimmune disease or environmental exposures. I also consulted on patients with complicated and unexplained lung disease that falls outside of what would be considered ILD, such as hypoxia of unexplained etiology.

### [Certification](#)

### [Medical, other state/government licensure](#)

2007-present Maryland State Medical License, D0066256

### Boards, other specialty certification

2007-2027 Board Certified, Internal Medicine

2012-2023 Board Certified, Pulmonary Medicine (currently doing annual longitudinal knowledge assessments)

2013-2023 Board Certified, Critical Care Medicine (currently doing annual longitudinal knowledge assessments)

### Clinical (Service) Responsibilities

7/12-10/2020 Interstitial Lung Disease Group – Faculty Member

7/12-present JHH Medical Intensive Care Unit (MICU), Bayview MICU – Faculty Member

9/14-present Longcope Firm Faculty – Attend on the Osler Medicine Housestaff Service

10/14-3/17 Johns Hopkins Biocontainment Unit – Associate Medical Director and Physician Provider

3/17-present Johns Hopkins Biocontainment Unit – Medical Director and Physician Provider

7/2022-present JHH Oncology ICU – Faculty Member

### Clinical Program Building / Leadership

Date Role/percent effort; name of clinical program; impact of program outside of JHHMI/region

9/14-2/17 Associate Medical Director, Director of Education; 30% FTE, Johns Hopkins Biocontainment Unit; During the Ebola crisis in 2014, I helped to create the Johns Hopkins Biocontainment Unit (BCU), a specialized unit capable of providing care for patients with high consequence pathogens such as Ebola, severe acute respiratory syndrome (SARS), and Middle East Respiratory Syndrome (MERS). I established our longitudinal training program on highly infectious disease isolation, safety and treatment. I authored our clinical guidelines and assisted with the design of the clinical space. I directed the BCU education and research agenda and was co-PI on two 5-year federal grants that funded our preparedness mission. The JH BCU is one of only 10 federally funded BCUs in the U.S. and is a model for research and education in containment care.

3/17-present Medical Director, Director of Education; 30% FTE, Johns Hopkins Biocontainment Unit; The BCU has played an integral role in the response to COVID-19. Prior to the first patients, the BCU helped to prepare the institution for persons-under investigation (PUI) and for confirmed cases. The BCU first activated for a COVID-19 PUI on February 29 and then cared for the first confirmed cases of COVID-19 until Meyer 9 and the MICU were activated as full biomode units on March 23, 2020. The BCU team continued to provide frontline COVID-19 care on the active biomode units, and led educational and operational efforts to help other biomode units activate and function safely. The BCU team is currently working with the Administration for Strategic Preparedness and Response (ASPR) to design a National Special Pathogens System.

9/23-present Director, Johns Hopkins Special Pathogens Center. The Johns Hopkins Special Pathogens Center is dedicated to preparing for, monitoring and treating highly lethal infections and diseases of unknown origin. Our center brings together the expertise of three distinct areas at Johns Hopkins Medicine — clinical care, research and education — to respond to special pathogens. The Center includes the Johns Hopkins Biocontainment Unit and the Johns Hopkins Precision Medicine Center for COVID-19.

## EDUCATIONAL ACTIVITIES

### Educational Focus

I am passionate about bedside teaching. In 2014, I enrolled in the MEHP program and created a cardiopulmonary physical diagnosis curriculum that is delivered to interns in the Osler Medical Residency program. This has become the backbone for a comprehensive bedside medicine program at JHH and JHBMC. I am past-president and founder of the Society of Bedside Medicine, an international group dedicated to education, innovation and research in the 21<sup>st</sup> century clinical encounter. I am currently the PI of a large Reimagining Residency Initiative award from the American Medical Association that is focused on understanding the relationship between potentially modifiable factors in the training environment, clinical skills and professional fulfillment. I am also the director of a bedside medicine fellowship program funded through the Gordon and Betty Moore Foundation that allows the Society of Bedside Medicine to fund 2 fellows per year to conduct bedside medicine focused projects at their home institutions. These initiatives bring physicians and trainees back to the bedside to promote high quality, patient-centered care. I also helped to design and implement the educational

program of the BCU for high consequence pathogens, including COVID-19. We have played a critical role in health system, state, regional and national education on how to safely provide care for patients with COVID-19 and other novel pathogens.

## Teaching

### Classroom instruction

#### JHMI/Regional

| Date               | Role, learner level, course title, venue; any explanatory notes   |
|--------------------|---|
| 7/09-6/13          | Lecturer/Small group leader, 4 <sup>th</sup> year medical students, TRIPLE (Transition to Residency and Internship and Preparation for Life Events); Capstone course for all 4 <sup>th</sup> year medical students.   |
| 7/09-6/13          | Lecturer, 3 <sup>rd</sup> and 4 <sup>th</sup> year medical students, Basic Clerkship Lecture Series, The Johns Hopkins Hospital; Delivered lectures on Pulmonary Function Testing to medical students on the medicine clerkship.  |
| 5/11-6/13          | Lecturer, Applying Clinical Reasoning to the Physical Exam, Johns Hopkins Simulation Center; Delivered two-hour seminar on physical diagnosis and clinical reasoning to medical students  |
| 8/11-6/13;<br>2016 | Small group leader, 2 <sup>nd</sup> year medical students, Pulmonary Genes to Society, Armstrong Medical Education Building; Small group instructor for 2 <sup>nd</sup> year medical students.  |
| 7/09-6/15          | Facilitator, 3 <sup>rd</sup> year medical students, Transition to the Wards, The Johns Hopkins Hospital; Bedside instructor for clinical Skills Course for 2 <sup>nd</sup> year medical students  |
| 7/14-9/15          | Associate Director, 4 <sup>th</sup> year medical students, TRIPLE (Transition to Residency and Internship and Preparation for Life Events); Capstone course for all 4 <sup>th</sup> year medical students   |
| 2015-2016          | Lecturer, Johns Hopkins Pulmonary Fellowship Introduction to Bronchoscopy Course  |
| 2016               | Lecturer, Pulmonary Fellows' Winter Education Week  |
| 2016               | Lecturer, Pulmonary Fellows' Core Conference series   |
| 2016               | Lecturer, Critical Care Physician Assistant Residency Program   |
| 2018               | Lecturer, Bloomberg School of Public Health Infectious Disease Concentration conference series  |
| 2014-present       | Lecturer, Housestaff Noon Conference Series   |
| 12/14-present      | Director, graduate students, Pulmonary Course for Graduate Students, Johns Hopkins University; Course director of basic pulmonary physiology course for graduate students in the Departments of Physiology, Pharmacology and Cellular and Molecular Medicine                      |
| 9/15-6/20          | Director, 4 <sup>th</sup> year medical students, TRIPLE (Transition to Residency and Internship and Preparation for Life Events), Armstrong Medical Education Building (AMEB) and Johns Hopkins Simulation Center; Capstone course for all 4 <sup>th</sup> year medical students. |
| 2020-2021          | ME 600.722 Data Abstraction for the JH CROWN Clinical Registry: Applications of Informatics in Addressing Novel Infectious Diseases; co-course director and faculty.  |

#### International

|           |  |
|-----------|--|
| 7/13-7/14 | Director, 1 <sup>st</sup> and 2 <sup>nd</sup> year medical students, Genes to Society Course, Perdana University Graduate School of Medicine; Director of the two-year GTS curriculum at a Hopkins affiliated medical school in Malaysia |
|-----------|--|

### Clinical instruction

#### JHMI/Regional

|              |  |
|--------------|--|
| 2004-present | Bedside Instructor, medical students and medicine housestaff, The Johns Hopkins Hospital   |
| 2008-2009    | Facilitator, medicine housestaff, Resident Report; Facilitated weekly resident report  |
| 2012-2013    | Site Director, 3 <sup>rd</sup> and 4 <sup>th</sup> year medical students, Internal Medicine Basic Clerkship, The Johns Hopkins Hospital; conducted weekly bedside teaching sessions and clinical didactics with 3 <sup>rd</sup> year medicine clerks |
| 2012-2020    | Lecturer, medicine residents and pulmonary fellows, Carol Johns Service (Inpatient Pulmonary Service); lecture monthly about Interstitial Lung Disease to housestaff and fellows as part of the core curriculum                                      |
| 2014-2018    | Director, pulmonary fellows, Radiology Conference, Division of Pulmonary and Critical Care Medicine; led weekly multi-disciplinary radiology conference for the Pulmonary Division.  |
| 2014-present | Firm Faculty member, medicine housestaff, Osler Medical Residency Program; Conduct bedside teaching sessions for medical students and residents on the Longcope Firm.  |

- 2015-2017 Education Director, medicine housestaff, General Medicine Service (GMS), The Johns Hopkins Hospital; coordinate educational activities for housestaff on the GMS
- 2015-2016 Assistant Program Director for Curriculum, medicine housestaff, Osler Medical Residency Program; coordinate educational activities for the internal medicine residency program
- 2016-present Associate Program Director for Bedside Medicine, medicine housestaff, Osler Medical Residency Program, The Johns Hopkins Hospital; coordinate educational activities for the medicine residency program
- 2017-present ACCESS Examiner for St. Peter's University Hospital, New Brunswick, NJ; serve as faculty examiner for the ACCESS clinical skills assessment in collaboration with the Royal College of Physicians of Edinburgh

International

- 2013-2014 Assistant Director for Clinical Clerkships, 3<sup>rd</sup> and 4<sup>th</sup> year medical students, Perdana University Graduate School of Medicine (PUGSOM); oversaw the development and administration of the clinical clerkship program at PUGSOM, including Medicine, Neurology, Psychiatry, Obstetrics and Gynecology, Pediatrics and Surgery.

[CME instruction](#)

JHMI/Regional

- 2008-2009 Lecturer, medicine faculty, Medical Grand Rounds 'Images of Osler', The Johns Hopkins Hospital
- 2009 Lecturer, medicine faculty, Spontaneous Pneumomediastinum in a patient with ILD, The Philip A. Tumulty Topics in Clinical Medicine Course, The Johns Hopkins Hospital
- 2011 Instructor, Johns Hopkins Interventional Pulmonology Pleural Disease Course, The Johns Hopkins Hospital; served as bedside instructor for pulmonary procedures
- 2012 Lecturer, medicine faculty, An uncommon presentation of an uncommon disease, Harbor Hospital Medical Grand Rounds, Harbor Hospital, Baltimore, MD
- 2013-2014 Organizer and lecturer, medicine faculty, Department of Medicine CME lecture series, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia; organized visiting speakers from Johns Hopkins and delivered one Grand Rounds session.
- 2015 Lecturer and bedside instructor, medicine faculty, Teaching Tips for Workplace-based Settings: Making the Most of Teaching Opportunities, Summer Teaching Camp, Institute for Excellence in Education
- 2015 Lecturer, pulmonary faculty, ILD and Alphabet Soup: Recognition, Evaluation and Treatment Strategies, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Clinical ILD Cases and Discussion, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Setting up a Biocontainment Unit: The Johns Hopkins University Experience, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Beyond Ebola: Emerging Threats in Infectious Disease and Biocontainment, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Hands-on Personal Protective Equipment, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Radiology Case Review, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Challenging Cases and Diagnostic Dilemmas, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2015 Lecturer, pulmonary faculty, Medical Jeopardy! A Course Review, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Isle of Palms, SC
- 2016 Lecturer, pulmonary faculty, Management of Unclear Exudates, 6<sup>th</sup> Annual Evaluation and Management of Pleural Disease, Johns Hopkins University
- 2016 Lecturer, medicine faculty, How to Teach Clinical Reasoning, Summer Teaching Camp, Institute for Excellence in Education, Johns Hopkins University
- 2017 Lecturer, medicine faculty, A case from the interstitial lung disease clinic, The Philip A. Tumulty Topics in Clinical Medicine Course, The Johns Hopkins Hospital
- 2017 Lecturer, pulmonary faculty, Clinical ILD Cases and Discussion, Johns Hopkins Update in Pulmonary, Critical Care and Sleep Medicine, Napa Valley, CA

- 2019 Lecturer, geriatricians, The physical exam in older adults, Edmund G. Beacham 46th Annual Current Topics in Geriatrics, Baltimore, MD
- 2019 Facilitator, Introduction to Point of Care Ultrasound (POCUS). Maryland ACP Annual Conference, Baltimore, MD
- 2020 Facilitator, Introduction to Point of Care Ultrasound (POCUS). Maryland ACP Annual Conference, Baltimore, MD
- 2020 Lecturer, medicine faculty, 10<sup>th</sup> Annual Evaluation and Management of Pleural Disease, Johns Hopkins University.
- 2020 Lecturer, geriatricians, More Physical Exam Teaching, Edmund G. Beacham 47th Annual Current Topics in Geriatrics, Baltimore, MD
- 2021 Lecturer, medicine faculty, The Johns Hopkins Experience with COVID-19, The Philip A. Tumulty Topics in Clinical Medicine Course, The Johns Hopkins Hospital.
- 2021 Teaching and Assessing the Physical Exam. Institute for Excellence in Education Summer Camp. Johns Hopkins Hospital, Baltimore, MD (delivered via Zoom).
- 2021 Lecturer, medicine faculty, 11<sup>th</sup> Annual Evaluation and Management of Pleural Disease, Johns Hopkins University (delivered via Zoom).
- 2022 How to teach the physical exam. Institute for Excellence in Education Summer Camp. Johns Hopkins Hospital, Baltimore, MD.

#### National

- 2017 Small group facilitator, Clinical Skills for the Practicing Physician, Stanford 25 Bedside Medicine Symposium, Stanford University, Palo Alto, CA
- 2017 Workshop organizer and presenter, A better way to assess physical exam skills: Direct observation and volunteer patients, AAIM Skills and Leadership Conference, Dallas, TX.
- 2018 Workshop organizer and presenter, Approach to the Pulmonary Exam, Third Annual Back to the Bedside Conference, St. Peters Hospital, New Brunswick, NJ.
- 2019 Small group facilitator, Clinical Skills for the Practicing Physician, Stanford 25 Bedside Medicine Symposium, Stanford University, Palo Alto, CA
- 2022 Small group facilitator, The Pulmonary Examination, Stanford 25 Bedside Medicine Symposium, Stanford University, Palo Alto, CA

#### Workshops /seminars

##### JHMI/Regional

- 8/4/16 **Garibaldi BT**, Sedighi Manesh R, and Barone MA. How to Teach Clinical Reasoning [workshop], The Institute for Excellence in Education (IEE) 2016 Summer Teaching Camp. Baltimore, MD
- 5/10/17 **Garibaldi BT** and Lewis M. Ethical, legal and social implications of genomics in the care of patients with highly infectious diseases. Seminar for the Bloomberg School of Public Health Course: Germs, Genes, Patients and Populations.
- 10/15/17 **Garibaldi BT**, Niessen T. Approach to the Chest Examination. Bayview Faculty Development Meeting.
- 2/8/18 **Garibaldi BT** and Russell SW. Approach to bedside physical examination for pediatrics providers. Hopkins Pediatric Hospitalist Group Faculty Development Meeting.
- 5/3/18 **Garibaldi BT**, Niessen T, Manesh R, Liu G, Halstead M. Maryland American College of Physicians (ACP) Clinical Skills Symposium. Developed and implemented a clinical skills symposium for the Maryland chapter of the ACP.
- 7/12/18 **Garibaldi BT**, Kugler J, and Liu G. Bedside Teaching [workshop], The Institute for Excellence in Education (IEE) 2018 Summer Teaching Camp. Baltimore, MD
- 3/7/19 **Garibaldi BT** and Luckin J. Assessing Physical Examination and Communication Skills (APECS). Armstrong Institute 3<sup>rd</sup> Annual Diagnostic Excellence Summit. Baltimore, MD
- 5/23/19 **Garibaldi BT**, Niessen T, Liu G and Halstead M. Halstead M. Maryland American College of Physicians (ACP) Clinical Skills Symposium. Developed and implemented a clinical skills symposium for the Maryland chapter of the ACP.
- 5/25/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. Upper Chesapeake Medical Center, Maryland.

- 6/12/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. Harford Memorial Hospital, Maryland. Medstar Harbor Hospital, Maryland.
- 8/13/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. Medstar Harbor Hospital, Maryland.
- 9/10/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. Howard County Hospital, Maryland.
- 9/13/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. University of Maryland, Baltimore-Washington Hospital, Maryland.
- 9/26/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. Medstar Southern Maryland Hospital, Maryland.
- 10/1/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. University of Maryland Capital Region, Maryland.
- 10/3/19 Frontline Hospital Training Course in the Management of Highly Infectious Diseases. Medstar Franklin Square Hospital, Maryland.

#### National

- 10/21/16 **Garibaldi BT**, Sedighi MR, Russell SW. Re-Invigorating the Practice of Bedside Medicine – A Practical Guide to Teaching at the Bedside. AAIM Skills Development Conference. National Harbor, MD.
- 2/11/17 **Garibaldi BT**, Sedighi MR, Russell SW. Implementing Practical Bedside Teaching in Three Simple Steps. Society of General Internal Medicine Southern Regional Conference. New Orleans, LA
- 9/30/17 **Garibaldi BT**, Russell SW. Clinical Skills for the Practicing Physician. Stanford 25 Bedside Medicine Symposium. Palo Alto, CA
- 10/20/17 **Garibaldi BT**, Lee YZ, Clark B. A better way to assess physical exam skills: Direct observation and volunteer patients, AAIM Skills and Leadership Conference, Dallas, TX.
- 11/12/17 **Garibaldi BT**, Artandi M, Spacek L. Practical Physical Exam Skills. Annual Meeting of the Texas American College of Physicians (ACP), San Antonio, Tx
- 9/8/18 **Garibaldi BT**, Liu G, Niessen T, Kugler J, Zaman J. Integrating point of care ultrasound with the physical exam. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 9/8/18 **Garibaldi BT**, Luckin J, DiMarzio R, Elder A, Kothari N. A modified PACES program for U.S. clinical skills assessment. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 4/11/19 **Garibaldi BT**, Kugler J, Elder A, Artandi M, Niessen T, Liu G. 21<sup>st</sup> Century Clinical Skills. American College of Physicians (ACP) National Meeting. Philadelphia, PA.
- 11/1/19 Garibaldi BT. Approach to the Patient with Dyspnea. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 11/2/19 **Garibaldi BT**. The Assessment of Physical Examination and Communication Skills (APECS). Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 11/2/19 **Garibaldi BT**, Liu G, Kumar A, Kugler J. Integrating point of care ultrasound with the physical exam. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 11/10/19 **Garibaldi BT** and Manesh MR. Diagnosis Education - Best Practices and New Ideas. Society to Improve Diagnosis in Medicine (SIDM) Annual Meeting, Washington, DC.
- 10/6/20 **Garibaldi BT**, Russell SW, Desai SV and Artandi M. Assessment of Physical Exam and Communication Skills (APECS) using Telemedicine. American Medical Association GME Innovations Summit (Delivering over Zoom).
- 4/29/22 **Garibaldi BT**, Artandi M, Niessen T, Russell SW, Titer K, Kothari N, Record J. 21<sup>st</sup> Century Clinical Skills. American College of Physicians (ACP) National Meeting. Chicago, IL.
- 7/26/22 Garibaldi BT. Approach to the Pulmonary Exam. St. Peter's University Hospital, New Brunswick, NJ.
- 10/18/22 Garibaldi BT. Approach to the Pulmonary Exam. St. Peter's University Hospital, New Brunswick, NJ.
- 4/29/23 **Garibaldi BT**, Artandi M, Niessen T, Titer K, Kothari N, Osterberg L, Saman J. 21<sup>st</sup> Century Clinical Skills. American College of Physicians (ACP) National Meeting. San Diego, CA.
- 5/23/23 **Garibaldi BT**. Teaching the Physical Exam in the Modern Hospital. Northwestern University Feinberg School of Medicine. Chicago, Il.

#### International

- 5/8/19 **Garibaldi, BT**. Practical Bedside Skills for Clinicians and Educators. Medical Education Forum. Krakow, Poland.



11/20/19 **Garibaldi, BT** and Alejandro Schejtman. Intersticiopatías, cómo resolver su manejo con el expert (Interstitial lung disease, how to approach a case with an expert – conducted in Spanish). 27<sup>th</sup> National Congress of Medicine, Buenos Aires, Argentina.

## Mentoring

### Pre-doctoral Advisees /Mentees

2012-2014 Pooja Mandke, MSc, PhD, University of Texas at Austin. Pooja worked in the King laboratory as a technician for 2 years. She ultimately became the lab manager for the entire group. I was her direct supervisor in the lab and trained her on techniques including small animal surgery as well as flow cytometry. We have three shared publications (OR 9,11,13). She left to pursue her PhD in oncology at the University of Texas at Austin.

2014-2017 Mallory Reimers, RN, The Johns Hopkins Hospital. Mallory was the nurse educator for the Biocontainment Unit. She reported directly to me in my role as the Medical Director. We worked on protocol development and co-developed our training curriculum for staff. We share 2 publications (OR 14, 15; BC 9). We have co-presented abstracts at local, regional, national and international meetings.

2017-present Jade Flinn, RN, The Johns Hopkins Hospital. Jade is the nurse educator of the BCU and reports directly to me in my role as Medical Director. We work on protocol development as well as training session design and implementation. She also participates in ongoing research projects on the unit related to staff and unit safety. We have five papers together (OR 22, 31, 32, 65, 67 above). I also provided mentorship while she was pursuing her masters in education.

### Post-doctoral Advisees /Mentees

2014-present Timothy Niessen, MD, MPH, Johns Hopkins University School of Medicine. Tim worked with me to establish our bedside medicine program at Johns Hopkins. We created the General Medicine Service together and he is one of the core faculty that delivers our physical examination curriculum. He was a co-investigator on the Berkheimer Faculty Scholars Award from the Institute in Excellence in Education (IEE). We have five publications together on this topic (OR 16, 29, 61; EO 5), and have presented at national meetings on clinical skills education and assessment. We also partnered together on COVID-19 care and research and have one COVID manuscript together (OR 33).

2014-2020 Reza S. Manesh, MD, Johns Hopkins University School of Medicine. Reza is a hospitalist that helped to deliver our physical diagnosis curriculum. We worked together on adapting his online clinical reasoning curriculum to live, in-person bedside medicine sessions. We presented together on clinical reasoning at the Association of Academic Internal Medicine (AAIM) and the Society of General Internal Medicine (SGIM). We have two publications together on this topic (OR 16, 24).

2015-present Bennett Clark, MD, Johns Hopkins University School of Medicine. Bennett is a hospitalist that helped to deliver our physical diagnosis curriculum on the General Medicine Service at Johns Hopkins. We worked on a project to develop and implement a novel bedside clinical skills assessment for housestaff. He is now at the University of Minnesota and we are continuing to collaborate on clinical skills education and assessment. We have three publications together on this topic (OR 16, 29, 61).

2017-present Gigi Liu, MD, Johns Hopkins University School of Medicine. Gigi is a hospitalist with an interest in diagnostic point of care ultrasound. We are working to integrate point of care ultrasound teaching into our physical diagnosis curriculum. We have three publications together on improving physical exam skills in general (OR 16, 25, EO 5) and three on COVID-19 (OR 50 CR 9,10).

2020-present Matthew L. Robinson, MD, Johns Hopkins University School of Medicine. Matt is an assistant professor in the division of Infectious Diseases. We are working together in the COVID-19 Precision Medicine Center of Excellence to develop prediction models for hospitalized patients with COVID-19 and conduct comparative effectiveness models on COVID-19 therapeutics. We have 8 publications together on COVID-19 (OR 33, 37, 47, 48, 53, 62, 63, 66).

2021-present Ashraf Fawzy, MD, Johns Hopkins University School of Medicine. Ash is an assistant professor in the division of Pulmonary and Critical Care. We are working together in the COVID-19 Precision Medicine Center of Excellence to understand the performance of pulse oximetry in different racial and ethnic groups. We have 2 publications together (OR 65,78).

### Thesis Committee

2022 Kayte Andersen, PhD, Epidemiology, Use Beyond the Evidence Base: An Evaluation of Pharmacotherapy During COVID-19, committee member  
2023 Lauren Sauer, PhD, Epidemiology, committee member

### Educational Program Building / Leadership

7/08-6/09 Medicine Housestaff Noon Conference Lecture Series - Organized speaker schedule and curriculum for housestaff noon conference lecture series  
7/12-6/13 Site Director, Johns Hopkins University School of Medicine Basic Medicine Clerkship  
7/13-7/14 Director, Genes to Society Course, Perdana University Graduate School of Medicine, Malaysia  
7/13-7/14 Assistant Director, Clinical Clerkships, Perdana University Graduate School of Medicine, Malaysia  
9/14-9/18 Co-Director of Longitudinal Training, HCL Healthcare/JHI – Developed and delivered longitudinal training course for general practitioners at HCL Healthcare in India  
10/14-8/15 Associate Director, TRIPLE (Transition to Residency and Internship and Preparation for Life), capstone course for 4<sup>th</sup> year medical students to prepare them for internship.  
4/15-present Director, Pulmonary Course for Physiology Graduate Students – Course director of basic pulmonary physiology course for graduate students in the Department of Physiology  
5/15-present Director of Education, Johns Hopkins Biocontainment Unit – Coordinate training program for over 150 staff to provide care for patients with serious communicable diseases  
4/15-6/18 Education Director, General Medicine Service (GMS) - Coordinated educational activities for housestaff  
7/15-6/16 Assistant Program Director for Curriculum, 15% effort, Osler Medicine Residency Program; I established the General Medicine Service (GMS) and created the Advancing Bedside Cardiopulmonary Physical Examination Skills (ACE) curriculum. This service and curriculum is devoted to reinvigorating the culture of bedside medicine at The Johns Hopkins Hospital, by emphasizing the importance of time at the bedside and delivering focused physical examination instruction.  
7/16-present Associate Program Director for Curriculum, 15% effort, Osler Medicine Residency Program; See description above  
9/15-8/20 Director, TRIPLE (Transition to Residency and Internship and Preparation for Life), 15% effort, capstone course for 4<sup>th</sup> year medical students to prepare them for internship.  
7/15-6/16 Member, American Thoracic Society Members in Training and Transition Committee  
4/16-present Founder, Hopkins Bedside Medicine Society; Helped to create a bedside medicine society with the mission of reinvigorating the culture and practice of bedside medicine at the Johns Hopkins Hospital.  
8/16-present Co-president (through 2021) and founding member, Society of Bedside Medicine (SBM); Helped to create an international bedside medicine society with colleagues from across the globe with the inaugural meeting at the Stanford Bedside Medicine Symposium in Palo Alto, CA in September 2017.  
2/17-present Co-lead, Education Core, Johns Hopkins Center for Diagnostic Excellence, Armstrong Institute for Patient Safety and Quality; Helping to build an educational program that focuses on reducing diagnostic error and improving patient safety.  
9/19-present Lead, Maryland Special Pathogens Education Program – Designed and implemented educational program for Maryland frontline and assessment hospitals to care for patients with high consequence pathogens including COVID-19.

### Educational Demonstration Activities to external audiences, on or off campus

The BCU has conducted hundreds of tours and educational sessions since 2016.

**2017-2018** Johns Hopkins Undergraduate Public Health Studies program: *Responding to Disasters: from Earthquakes to Ebola*  
Johns Hopkins International Nurse Manager Academy from China  
FEMA/ASPR/Dept of Defense (group of 10 military planners), Johns Hopkins Biocontainment Unit  
US Air Force Medical Support Agency (group of 8 from Surgeon General's office)  
UPMC Center for Health Security Tour (group of 15 visiting scholars from Taiwan)  
Cecil County Health Department  
Howard County Health Department  
Penn State Hershey Medical Center  
Department of Health and Human Services (HHS) delegation  
Carroll County Health Department/Somerset County Health Department  
Talbot County Health Department, Johns Hopkins Biocontainment Unit

United States Army Medical Research Institute for Infectious Diseases  
Johns Hopkins Master of Health Administration program  
Baltimore City Health Department  
Kent County Health Department  
Hartford County Health Department  
Anne Arundel Health Department  
Johns Hopkins University Program in Occupational Health  
Berman Institute of Bioethics – Germs, Genes, Patients and Populations Course  
National Ebola Training and Education Center  
College of Health Sciences at Rochester Institute of Technology, Honors Students

**2018-2019**

Health Security ELBI Tour  
Dupont  
Preventive Medicine Residency Tour and Talk  
Department of Homeland Security and Health and Human Services Joint Survey Tool Assessment  
Tour for Chinese Delegation, Drum Tower Hospital, Nanjing  
Chinese Physician. Leadership Group  
Representative from Federal University Pernambuco, Brazil  
Anne Arundel County Office of Emergency Management, Johns Hopkins Biocontainment Unit  
Office of Senator Van Hollen Staffer Tour  
Price Waterhouse Coopers  
Biocontainment Unit Tour and Educational Session, College of Health Sciences at Rochester Institute of Technology, Honors Students

**2019-2020**

Johns Hopkins Medicine Administrative Fellows Program  
Children's National Hospital  
Johns Hopkins Volunteer Services  
Johns Hopkins Supply Chain Department, Johns Hopkins  
Fox 45 Baltimore  
Maryland Congressional Offices and Officials  
Pennsylvania Department of Health  
LifeStar Transport  
Shanghai Jiao Tong University School Medicine  
Freeman Hospital (UK), Johns Hopkins Biocontainment Unit  
Penn Medicine  
Johns Hopkins University Masters in Healthcare Administration Students  
Frederick Memorial Hospital  
Medstar Southern Maryland Hospital Center  
Lancaster Health Center, Pennsylvania  
Sinai Hospital, Baltimore  
The Hong Kong Polytechnic University  
Cedars-Sinai Hospital, California  
Johns Hopkins School of Nursing,  
NETEC Education Course Attendees  
Peninsula Regional Medical Center, Maryland  
DuPont  
Clean Space  
Johns Hopkins Occupational Health  
Delaware HCID Transport Team  
VCU Health, Johns Hopkins Biocontainment Unit

**2020-2021**

60 Minutes, Johns Hopkins Biocontainment Unit  
Office of Senator Van Hollen Staffer Tour, Johns Hopkins Biocontainment Unit  
Office of Senator Murray Staffer Tour, Johns Hopkins Biocontainment Unit  
Johns Hopkins University Community Affairs, Johns Hopkins Biocontainment Unit  
Johns Hopkins University School of Nursing, Johns Hopkins Biocontainment Unit  
Johns Hopkins Medicine Administrative Fellows Program, Johns Hopkins Biocontainment Unit  
Health Minister of Ecuador and Delegation

**2021-2022**

US Airforce  
Hopkins on the Hill  
MaxAir  
University of Southern Florida  
Occupational Health Program, JHSPH  
Howard County General Hospital  
Sibley Memorial Hospital  
University of Nebraska Medical Center  
Emory University  
Bellevue Hospital

**2022-2023**

Johns Hopkins School of Nursing  
Office of Representative Ruppertsberger  
Office of Senator Van Hollen  
Office of Representative Wexton  
Office of Representative Harris  
MedStar Washington Hospital Center  
Children's National Hospital  
West Virginia University Ruby Hospital  
Maryland Hospital Association  
Delaware Hospital Association  
Virginia Hospital Association  
Maryland Department of Health  
DC Department of Health  
Virginia Department of Health  
Delaware Department of Health  
Baltimore VA Medical Center  
Martinsburg VA Medical Center  
Mid Atlantic VA System  
University of Minnesota Medical Center  
Bellevue Hospital  
University of Nebraska Medical Center  
Emory University  
Sinai Hospital  
INOVA Fairfax Hospital, Loudon Hospital  
Baltimore Washington Medical Center  
Lurie Children's Medical Center  
Talbot County Health Department  
Sibley Memorial Hospital  
MedStar Southern Maryland Hospital Center  
University of Maryland Medical Center  
Centra Southside Community Hospital  
HCA Reston Hospital  
Jhpiego India Coalition  
Augusta Health Hospital  
Suburban Hospital  
Capitol Regional Medical Center  
Greater Baltimore Medical Center  
Carroll Hospital  
University of Virginia Hospital  
VCU Hospital

## RESEARCH ACTIVITIES

### Research Focus

During my early faculty career, I studied the role of lymphocytes and fibroblasts in acute lung injury fibroproliferation. In the Johns Hopkins Biocontainment Unit (BCU), my research focuses on improving the care of patients with highly infectious diseases, with an emphasis on the role of the built environment, human factors engineering and PPE in staff and patient safety. Since the start of the COVID-19 pandemic our research has shifted to understanding the pathobiology and clinical course of COVID-19 through the Johns Hopkins COVID-19 Precision Medicine Center of Excellence. Through our work at Hopkins and in collaboration with the American Medical Association and the Society of Bedside Medicine, we are studying the impact of dedicated clinical skills curricula on attitudes, skills, behaviors, clinical outcomes and professional fulfillment.

### Research Program Building / Leadership

- 2015-present Director, Biocontainment unit – The BCU research program focuses on the role of the built environment and PPE in the safety of healthcare workers and patients in the context of highly infectious diseases. In collaboration with the Applied Physics Lab we developed new techniques to assess the risk of transmission of infectious diseases in various environmental settings. We also validated a novel methodology to assess the effectiveness of steam sterilization of Category A waste from a biocontainment unit.
- 2016-2020 Co-PI – CEER grant with the Berman Ethics Institute – In collaboration with the Berman Ethics Institute, we conducted research to better understand how advances in genomics can inform both provider and patient-specific decisions in the context of highly infectious diseases.
- 2020-present Director, COVID-19 Precision Medicine Center of Excellence – In collaboration with Hopkins inHealth we created the COVID-19 PMCOE. This center focuses on understanding the clinical manifestations of COVID-19 to learn about pathobiology and patient trajectories. We developed prediction tools and conducted retrospective analyses to understand the effectiveness of COVID-19 therapeutics. We are also exploring disparities in COVID-19 care, including the systemic underestimation of hypoxemia by pulse oximetry in underrepresented minorities.
- 2021-present Director, Society of Bedside Medicine Fellowship in Bedside Medicine – In collaboration with the Gordon and Betty Moore Foundation and the Johns Hopkins Department of Medicine, we developed a bedside medicine fellowship program. We will fund 2 fellows each year for 3 years to conduct a bedside medicine project at their home institution that has at least one component focused on diversity, equity, inclusion and justice. We provide mentorship and CME activities and are building a community of physicians dedicated to diagnostic excellence.

## SYSTEM INNOVATION AND QUALITY IMPROVEMENT ACTIVITIES

### System Innovation and Quality Improvement efforts within JHMI:

See above sections on the JHH Biocontainment Unit and our clinical skills program

### System Innovation and Quality Improvement efforts outside of JHMI:

- 4/17 Member, The United States Air Force High Performance Team (HPT) to create an expeditionary biocontainment unit. Participated as a member of a HPT with the goal of creating a new mobile BCU capability for the United States Air Force.

See above sections on the Society of Bedside Medicine, HCL Healthcare program and the JHH Biocontainment Unit.

### System Innovation and Quality Improvement Program Building/Leadership:

See above sections on our clinical skills program, The Society of Bedside Medicine, HCL Healthcare program and the JHH Biocontainment Unit.

## ORGANIZATIONAL ACTIVITIES

### Institutional Administrative Appointments

|              |  |
|--------------|--|
| 2008-present | Intern-selection committee member for the Osler Internal Medicine Residency Program                                  |
| 2008-2009    | Collaborative Practice Committee Member  |
| 2010-2013    | Pulmonary Division Curriculum Committee Member   |
| 2012-2013    | Education Committee Member, Department of Medicine   |
| 2013-2014    | Admissions Committee Member, Perdana University Graduate School of Medicine  |
| 2013-2014    | Information, Computing and Telecommunications (ICT) Committee member, Perdana University Graduate School of Medicine |
| 2014-2019    | Clinical Competency Committee – Division of Pulmonary and Critical Care  |
| 2014-present | Clinical Competency Committee – Osler Medical Residency Program  |
| 2014-2015    | Co-Chair – Genes to Society Working Group on Pedagogy  |
| 2014-2016    | Chair – Department of Medicine Office of Education Clinical Skills Working Group                                     |
| 2014-2017    | Associate Medical Director – Johns Hopkins Biocontainment Unit (BCU)   |
| 2015-present | Director of Education – Johns Hopkins Biocontainment Unit (BCU)  |
| 2015-2020    | Co-Chair, Biocontainment Unit Drill and Preparedness Committee   |
| 2015-2016    | Assistant Program Director for Curriculum, Osler Medical Residency program   |
| 2015-present | Founding member, Ombuds Office (now called the MILES Committee), JHUSOM  |
| 2015-2020    | Member, Educational Policy and Curriculum Committee, Johns Hopkins University School of Medicine                     |
| 2015-2020    | Member, Clinical Skills and Clerkship Director Committee, JHUSOM   |
| 2016-present | Associate Program Director for Bedside Medicine, Osler Medical Residency program                                     |
| 2016-present | Member, Emergency Mass Casualty Committee (EMCC)   |
| 2016-2021    | Clinical Coach, The Longcope Firm  |
| 2017-present | Medical Director, Johns Hopkins Biocontainment Unit  |
| 2017-present | Co-lead, Education Core, Armstrong Institute Center for Diagnostic Excellence  |
| 2020-present | Member, COVID-19 Scarce Resources Committee  |
| 2020-present | Member, COVID-19 Therapeutic Pilot Studies Review Committee  |
| 2020-present | Member, COVID-19 Therapeutic Guidance Committee  |
| 2020-2022    | Member, COVID-19 and Data Research Evaluation (CADRE) Committee  |
| 2020-2022    | Member, Data safety and monitoring board (DSMB) for local Hopkin COVID-19 pilot studies                              |

### Editorial Activities

#### Editorial Board appointments

|             |  |
|-------------|--|
| 12/15-12/16 | Oakstone Critical Care Reviews, Lead Editor for Chest section; Organized and edited monthly audio reviews for practicing pulmonologists. |
|-------------|--|

#### Journal peer review activities

|              |  |
|--------------|--|
| 2007         | Reviewer, Journal of General Internal Medicine                                   |
| 2010-2016    | Reviewer, Practical Reviews in Critical Care                                     |
| 2010-present | Reviewer, Journal of Hospital Medicine   |
| 2012-2015    | Reviewer, American Journal of Physiology, Lung Cellular and Molecular Physiology |
| 2013-2015    | Reviewer, Journal of Bronchology and Interventional Pulmonology                  |
| 2013         | Reviewer, Journal of Critical Care   |
| 2013-present | Reviewer, PLOS ONE   |
| 2014         | Reviewer, Journal of Infection   |
| 2014-present | Reviewer, American Journal of Medicine   |
| 2014         | Reviewer, Transplant Infectious Disease  |
| 2015-present | Reviewer, Annals of the American Thoracic Society                                |
| 2015-present | Reviewer, Health Security  |
| 2020-present | Reviewer, New England Journal of Medicine  |
| 2020-present | Reviewer, Journal of the American Informatics Association                        |
| 2021-present | Reviewer, The Medical Journal of Australia                                       |

### Advisory Committees, Review Groups/Study Sections

|               |  |
|---------------|--|
| 2015-2017     | Steering Committee Member; Health and Human Services (HHS) Region 3 Ebola and Special Pathogens Preparedness Committee; Helped to formulate the HHS Region 3 Concept of Operations (CONOPS) for Ebola and other special pathogens preparedness   |
| 2015-2017     | Steering Committee Member; Maryland State Ebola and Special Pathogens Preparedness Committee; Helped to formulate the Maryland State Concept of Operations (CONOPS) for Ebola and other special pathogens preparedness   |
| 2016-present  | Health Care Coalition (HCC) Emerging Infectious Diseases (EID) Exercise Workgroup; Help to organize statewide preparedness drills for Ebola and other special pathogens  |
| 2017          | External Advisory Group: Health Sector Resilience Checklist for Highly Infectious Diseases. Center for Health Securities. Baltimore, MD  |
| 2017          | High Consequence Infectious Disease (HCID) Ambulance Team Advisory Council. Maryland Department of Health (MDH) and Maryland Institute for Emergency Medical Services Systems  |
| 2018-present  | Member, FDA Pulmonary-Allergy Drug Advisory Committee (PADAC)  |
| 2018-2021     | Member, Advisory Board for the International Conference of Education, Research and Innovation (ICERI), Seville, Spain  |
| 2018-2020     | Member, Visiting Scholars Selection Committee, American Board of Medical Specialties   |
| 2018- present | Member, Jeremiah A. Barondess Fellowship Selection Committee, New York Academy of Medicine and ACGME   |
| 2018-present  | Member, Advisory Committee, Johns Hopkins Center for Innovative Medicine (CIM)   |
| 2018-2021     | Member, Selection Committee, Johns Hopkins Institute for Excellence in Education Berkheimer Faculty Scholar Award  |
| 2020-present  | Member, JHU COVID-19 Board Update Group  |
| 2020-present  | Clinical Lead, Johns Hopkins COVID-19 Clinical Resource Center   |
| 2020-present  | Steering Committee Member, Consortium of HCA Healthcare and Academia for Research Generation (CHARGE)  |
| 2020-present  | Member, Learning Environment Strategies Group, American Medical Association  |
| 2021-2022     | Member, Medical Research Future Fund (MRFF) – Coronavirus Research Response – 2021 COVID-19 Health Impacts and Vaccination Schedules - Grant Assessment Committee (GAC), Australian <a href="#">National Health and Medical Research Council (NHMRC)</a>   |
| 2021-present  | National Special Pathogens System Core Advisory Group  |
| 2022-present  | Member, Selection Committee, Johns Hopkins Institute for Excellence in Education Berkheimer Faculty Scholar Award  |
| 2022-present  | Member, Selection Committee for the Building Trust and Equity in Internal Medicine Training grant program, jointly sponsored by the American Board of Internal Medicine, the ABIM Foundation, the Alliance for Academic Internal Medicine (AAIM), the American College of Physicians (ACP), the Gordon and Betty Moore Foundation, and the Josiah Macy Jr. Foundation. |
| 2023          | Member, American Medical Association (AMA) Council on MedEd Stakeholders Forum   |

### Professional Societies

|              |  |
|--------------|--|
| 2004-2010    | American Medical Association   |
| 2007-present | American Thoracic Society  |
| 2007-2018    | American College of Chest Physicians                                     |
| 2007-2010    | Society of Critical Care Medicine  |
| 2011-2013    | American Heart Association   |
| 2016-2017    | American Society of Microbiology   |
| 2016-present | New York Academy of Medicine, Fellow                                     |
| 2017-present | American College of Physicians, Fellow                                   |
| 2017-present | Society of Bedside Medicine, founder, past-president, Board of Directors |
| 2018-present | Royal College of Physicians of Edinburgh, Fellow                         |
| 2023-present | American Osler Society   |

### Conference Organizer

#### JHMI/Regional

|            |   |
|------------|---|
| 2013, 2015 | Planning Committee – Update in Pulmonary, Critical Care and Sleep Medicine, Johns Hopkins University School of Medicine, Baltimore, MD                    |
| 2019       | Activity Co-Director, Armstrong Institute 3 <sup>rd</sup> Annual Diagnostic Excellence Summit, Johns Hopkins University School of Medicine, Baltimore, MD |

- 2019 National Ebola Training and Education Center (NETEC) Emerging Infectious Disease Workshop. Johns Hopkins University School of Medicine, Baltimore, MD
- 2019 Planning Committee - John Conley Foundation Symposium on Humanism and Medicine: As if the Patient Mattered. Johns Hopkins University of Medicine, Baltimore, MD

#### National

- 2017-2022 Planning Committee – Society of Bedside Medicine Annual Meeting and Poster Session at the Stanford 25 Bedside Teaching Symposium, Palo Alto, California

#### International

- 2013 Organizer, International Center of Excellence (ICOE) Respiratory Update Conference, Yangon, Myanmar
- 2018-2019 Advisory Committee, 11<sup>th</sup> International Conference of Education, Research and Innovation, Seville, Spain.
- 2019-2020 Advisory Committee, 12<sup>th</sup> International Conference of Education, Research and Innovation, Seville, Spain.

#### Session Chair

##### National

- 5/14 Obliterative Bronchiolitis – Where do we stand in 2014? American Thoracic Society International Conference, San Diego CA
- 10/15 Global Case Reports in Obstructive Lung Disease (poster session). CHEST, Montreal, Canada
- 5/16 Case Reports in Diffuse Parenchymal Lung Disease (poster session). American Thoracic Society International Conference, San Francisco, CA
- 10/16 **Garibaldi BT**, Sedighi MR, Russell SW. Re-Invigorating the Practice of Bedside Medicine – A Practical Guide to Teaching at the Bedside. AAIM Skills Development Conference. National Harbor, MD.
- 2/17 Transporting Patients with Highly Contagious Diseases: Isolation, Treatment or Both? Symposium at the American Society of Microbiology Conference, Washington, DC.
- 2/17 **Garibaldi BT**, Sedighi MR, Russell SW. Implementing Practical Bedside Teaching in Three Simple Steps. Society of General Internal Medicine Southern Regional Conference. New Orleans, LA
- 9/17 **Garibaldi BT**, Russell SW. Clinical Skills for the Practicing Physician. Stanford 25 Bedside Medicine Symposium. Palo Alto, CA
- 10/17 **Garibaldi BT**, Lee YZ, Clark B. A better way to assess physical exam skills: Direct observation and volunteer patients, AAIM Skills and Leadership Conference, Dallas, TX.
- 11/17 **Garibaldi BT**, Artandi M, Spacek L. Practical Physical Exam Skills. Annual Meeting of the Texas American College of Physicians (ACP), San Antonio, Tx
- 9/8/18 **Garibaldi BT**, Liu G, Niessen T, Kugler J, Zaman J. Integrating point of care ultrasound with the physical exam. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 9/8/18 **Garibaldi BT**, Luckin J, DiMarzio R, Elder A, Kothari N. A modified PACES program for U.S. clinical skills assessment. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 11/2/19 **Garibaldi BT**. The Assessment of Physical Examination and Communication Skills (APECS). Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.
- 11/2/19 **Garibaldi BT**, Liu G, Kumar A, Kugler J. Integrating point of care ultrasound with the physical exam. Stanford 25 Bedside Medicine Symposium, Palo Alto, Ca.

##### International

- 11/17 **Garibaldi BT**. Experiences and Trends in Health Sciences Education (2). 10<sup>th</sup> International Conference of Education, Research and Innovation, Sevilla, Spain.
- 11/7/22 **Garibaldi BT**. Rethinking Assessment in COVID Times. 15<sup>th</sup> International Conference of Education, Research and Innovation, Sevilla, Spain.

#### Consultantships

- 2020-2022 Janssen Research and Development, LLC. I serve as an adjudicator for their COVID-19 vaccine trials.
- 2022-present Janssen Research and Development, LLC. I serve as an adjudicator for their RSV vaccine trials.



## RECOGNITION

### Awards, Honors

- 1995 Thomas Hunter Memorial Award, Hunter College High School, New York, NY
- 1995 Valedictorian, Hunter College High School, New York, NY
- 1999 *Phi Beta Kappa*, Harvard College, Cambridge, MA
- 1999 Summa cum laude, Harvard College, Cambridge, MA
- 1999 John Finley Traveling Fellowship (studied flamenco guitar in Spain for 1 year before medical school), Harvard College, Cambridge, MA
- 2004 Longcope Award for outstanding graduating internal medicine student, JHUSOM
- 2004 *Alpha Omega Alpha*, Johns Hopkins University School of Medicine, Baltimore, MD
- 2007 Daniel Baker Award for resident most exemplifying the ideals of the Osler Medical Service
- 2009 Interventional Bronchology Case Report Award, CHEST, Philadelphia, PA
- 2010 Ruth L. Kirschstein National Research Service Award (NRSA)
- 2011 American Thoracic Society Travel Award, Denver, CO
- 2011 NIH Loan Repayment Award
- 2011 Respiratory Disease Young Investigators' Forum Grant for best basic science presentation, Atlanta, GA
- 2012 American Thoracic Society Travel Award, San Francisco, CA
- 2012 W. Leigh Thompson Excellence in Research Award, JHUSOM Research Retreat
- 2012 Pittsburgh International Lung Conference Travel Award and Judges Award, Pittsburgh, PA
- 2015 Maryland Hospital Association Distinguished Service Award, accepted on behalf of the Ebola Preparedness Team at the Johns Hopkins Hospital
- 2016 Jeremiah A. Barondess Fellowship in the Clinical Transaction awarded jointly by the Accreditation Council for Graduate Medical Education (ACGME) and the New York Academy of Medicine (NYAM)
- 2016 Berkheimer Faculty Education Scholar Grant, JH Institute for Excellence in Education (IEE)
- 2016 Lisa J. Heiser Award for Junior Faculty Contribution in Education, JH IEE
- 2016 Fellow, New York Academy of Medicine
- 2017 American Board of Medical Specialties Visiting Scholar Award
- 2017 Fellow, American College of Physicians
- 2018 Educational Program Award, Johns Hopkins Institute for Excellence in Education (IEE)
- 2018 Selected as "Living the Hopkins Mission" honoree for the 125<sup>th</sup> Anniversary of the School of Medicine
- 2018 Douglas Carroll, MD Scholar, Johns Hopkins Bayview Center for Innovative Medicine
- 2018 Fellow, Royal College of Physicians of Edinburgh
- 2020 Member, Miller-Coulson Academy of Clinical Excellence
- 2020 Member, Medical team for President Trump when he had COVID-19, White House/Walter Reed
- 2021 Member, The Cosmos Club
- 2021 Clinical Excellence Award for Innovations in Clinical Care, The Johns Hopkins Hospital
- 2021 Distinguished Alumnus Award, Johns Hopkins University
- 2021 COVID-19 Hero, 2021 Health Care Heroes, The Daily Record, Annapolis, Maryland
- 2021 NIH Loan Repayment Award
- 2023 Member, American Osler Society

### Invited Talks

#### JHMI/Regional

- 2007 Thrombocytopenia in the ICU, Division of Pulmonary and Critical Care Medicine, Pulmonary Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD
- 2007 Propofol Infusion Syndrome, Division of Pulmonary and Critical Care Medicine, Pulmonary Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD
- 2008 Thyroid Storm, Division of Pulmonary and Critical Care Medicine, Pulmonary Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD
- 2008 Pulmonary Mucormycosis in Immunocompromised Patients, Division of Pulmonary and Critical Care Medicine, Pulmonary Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD
- 2008 Images of Osler, Department of Medicine, Medical Grand Rounds, The Johns Hopkins Hospital, Clinical Images presented monthly as part of grand rounds, Baltimore, MD
- 2009 Images of Osler, Department of Medicine, Medical Grand Rounds, The Johns Hopkins Hospital, Clinical Images presented monthly as part of grand rounds, Baltimore, MD

- 2009 The role of regulatory T cells in acute lung injury fibroproliferation, Division of Pulmonary and Critical Care, Research in Progress Conference, The Johns Hopkins Hospital, Baltimore, MD
- 2010 The role of fibrocytes in acute lung injury fibroproliferation, Division of Pulmonary and Critical Care, Research in Progress Conference, The Johns Hopkins Hospital, Baltimore, MD
- 2011 Tregs decrease fibrocyte recruitment to the lung by altering CXCL12 signaling, Division of Pulmonary and Critical Care, Research in Progress Conference, The Johns Hopkins Hospital, Baltimore, MD
- 2012 Clinical Reasoning Applied to the Physical Exam, Student National Medical Association, The Johns Hopkins Hospital, Baltimore, MD
- 2012 An uncommon presentation of an uncommon disease, Harbor Hospital Department of Medicine, Medical Grand Rounds, Harbor Hospital, Baltimore, MD
- 2012 Granulomatous BOOP, Division of Pulmonary and Critical Care Medicine, Pulmonary Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD
- 2013 The Role of Tregs in Lung Injury Fibroproliferation, Department of Medicine, Pulmonary Division Review, The Johns Hopkins Hospital, Baltimore, MD
- 2014 Clinical Reasoning – A case based approach, HCL Clinical Training Program, HCL Healthcare, Delhi, India (JHI Project)
- 2014 More common than we think? Division of Pulmonary and Critical Care Medicine, Pulmonary Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD
- 2015 Hopkins' Response to Ebola, Global Health Institute Panel Discussion, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD
- 2015 Creating a New Biocontainment Unit, Johns Hopkins Department of Medicine, Medical Grand Rounds
- 2015 How to Give Effective Feedback, Chinese Hospital Delegation and Johns Hopkins Medicine International, The Johns Hopkins Hospital, Baltimore, MD
- 2015 How to Give Effective Feedback, HCL Clinical Training Program, HCL Healthcare, Delhi, India (JHI Project)
- 2015 Working with Teams: Principles of Emotional Intelligence, Group Dynamics and Communication HCL Clinical Training Program, HCL Healthcare, Delhi, India (JHI Project)
- 2016 Pulmonary Fibrosis and Alphabet Soup: How do we make the diagnosis of pulmonary fibrosis? Pulmonary Fibrosis Foundation Patient Support Group, The Johns Hopkins Hospital, Baltimore, MD
- 2016 Happy Birthday Stethoscope! (Why are you still here?), Johns Hopkins Medicine Grand Rounds, Baltimore, MD
- 2016 Creating the Johns Hopkins Biocontainment Unit, Chesapeake American Industrial Hygiene Association (AIHA) and American Society of Safety Engineers (ASSE) Educational Seminar, The Johns Hopkins University Applied Physics Laboratory, Laurel, MD
- 2016 A high stakes assessment of physical exam skills - Are we ready to put ourselves in the hotseat?, Johns Hopkins Medicine Grand Rounds, Baltimore, MD
- 2016 Creating the Johns Hopkins Biocontainment Unit, University of Maryland Medical Center Pulmonary Grand Rounds, Baltimore, MD
- 2016 Approach to acute lower back pain, HCL Clinical Training Program, HCL Healthcare, Delhi, India (JHI Project)
- 2017 An evidence-based approach to the pulmonary examination, HCL Clinical Training Program, HCL Healthcare, Delhi, India (JHI Project)
- 2017 Clinical Pedagogy at Johns Hopkins. Presented to visiting delegation from Mahidol University in Bangkok, Thailand, The Johns Hopkins Hospital, Baltimore, MD
- 2017 The Osler Internal Medicine Residency Program. Presented to visiting delegation from the Johns Hopkins International Chinese Executive Education Program, Baltimore, MD
- 2017 Physical Exam and the Art of Medicine. Johns Hopkins Medicine Grand Rounds, Baltimore, MD
- 2018 Reinvigorating the Physical Exam. Johns Hopkins Otolaryngology Grand Rounds, Baltimore, MD
- 2018 Incident Command and the BCU. Johns Hopkins Office of Emergency Management Continuing Education Seminar, Baltimore, MD
- 2018 Reinvigorating Physical Exam Skills. Maryland ACP Clinical Skills Symposium, Baltimore, MD
- 2018 Reinvigorating the Bedside Exam, Nanjing Drum Tower Hospital Education Conference, Nanjing, China (JHI Project)
- 2018 Reinvigorating the Bedside Clinical Exam, Medical Grand Rounds, Medstar Sinai Hospital, Baltimore, MD
- 2019 Bedside Teaching as Scholarship, Nanjing Drum Tower Hospital Education Conference, Nanjing, China (JHI Project)

- 2019 Reinvigorating the Bedside Clinical Exam, Medical Grand Rounds, Johns Hopkins Bayview Medical Center, Baltimore, MD
- 2019 Synergy and Interdependence amongst a Multidisciplinary Team (Panel Discussion), Johns Hopkins Department of Medicine Clinical Retreat, Baltimore, MD
- 2019 Reinvigorating the Bedside Clinical Exam, Maryland ACP Clinical Skills Workshop, St. Agnes Hospital, Baltimore, MD
- 2019 Use of Ultrasound in a Biocontainment Unit. National Ebola Training and Education Center (NETEC) Emerging Infectious Disease Workshop, Johns Hopkins University School of Medicine, Baltimore, Maryland
- 2019 Reinvigorating the Bedside Clinical Exam. 3<sup>rd</sup> US-China Forum on Faculty Development for Residency Training, Drum Tower Hospital, Nanjing, China
- 2019 Resuscitating the Bedside Clinical Exam. Johns Hopkins Medicine Board of Trustees Meeting, Baltimore, MD
- 2019 Resuscitating the Bedside Clinical Exam. Johns Hopkins Medicine Dean's Advisory Council Meeting, Baltimore, MD
- 2019 The Graduate Medical Education Laboratory (GEL). Medical Grand Rounds, The Johns Hopkins Hospital, Baltimore, MD.
- 2019 Resuscitating the Bedside Clinical Exam. Johns Hopkins Center for Innovative Medicine (CIM) International Advisory Board Meeting, Baltimore, MD
- 2019 The Osler Medical Residency Program. Johns Hopkins International Chinese Executive Exchange Program, Baltimore, MD (series of 3 lectures).
- 2020 The Five-Minute Moment to Teach Bedside Clinical Skills. Maryland ACP Annual Meeting, Baltimore, MD 2020.
- 2020 Resuscitating the Bedside Clinical Exam. Edmund G. Beacham 47th Annual Current Topics in Geriatrics, Baltimore, MD.
- 2020 The JHM COVID-19 Clinical Experience. Johns Hopkins Medicine Grand Rounds, Baltimore, MD (delivered via Zoom)
- 2020 The JHM COVID-19 Clinical Experience. Johns Hopkins Pediatric Grand Rounds, Baltimore, MD (delivered via Zoom)
- 2020 At the bedside during COVID-19. Medical Grand Rounds, St. Peter's University, New Brunswick, NY (delivered via Zoom)
- 2020 The Hypothesis Driven Physical Exam. Medicine Noon Conference. Johns Hopkins Hospital, Baltimore, MD (delivered via Zoom)
- 2020 The Hypothesis Driven Physical Exam. Medicine Noon Conference. Johns Hopkins Bayview Medical Center, Baltimore, MD (delivered via Zoom)
- 2020 Flying the Plane While Building It: Developing a Research Infrastructure During a Changing Pandemic. Health Informatics Grand Rounds, Johns Hopkins Hospital, Baltimore, MD (delivered via Zoom)
- 2020 Miller Coulson Academy of Clinical Excellence, Medical Grand Rounds, Johns Hopkins Bayview Medical Center (delivered via Zoom)
- 2020-2022 The Johns Hopkins 30-Minute COVID-19 Briefing: Expert Insights on What You Need to Know – Recurring guest on weekly webinar by the Johns Hopkins Coronavirus Resource Center.
- 1/22/21 COVID Data Repositories Curated by Hopkins: Resources for Observational Research and Data Science. Medical Grand Rounds, Johns Hopkins Hospital, Baltimore, MD (delivered via Zoom, co-presented with Chris Chute)
- 2/11/2021 Treating COVID-19: The race to save lives. Johns Hopkins Medicine Dean's Symposium (delivered via Zoom)
- 2/24/21 The JH-CROWN Registry. MD Health IT Appreciation Forum. Maryland Department of Health (delivered via Zoom)
- 4/13/21 Flying the Plane While Improving It – Learning from COVID-19 Patient Data in Close to Real Time. Shanxi Bethune Hospital, China (delivered via Zoom)
- 4/15/21 Flying the Plane While Improving It – Learning from COVID-19 Patient Data in Close to Real Time. Johns Hopkins Hospital Respiratory Therapist Monthly Staff Meeting (delivered via Zoom)
- 6/10/21 Vaccines in, Masks Off: It's Time to Go Back to "Normal" – Pro-Con debate with Gregory Shrank. Point-Counterpoint Conference XL. Maryland Committee on Trauma (delivered via Zoom).
- 6/9/21 How do you prepare for a highly infectious disease? [Hopkins on the Hill at Home](#) (delivered via Zoom).
- 7/19/21 Using Informatics to Advance Use, Safety, and Effectiveness of COVID-19 Medical Products. Hopkins Summer Internship Program (delivered via Zoom).

|                  |  |
|------------------|--|
| 8/18/21          | Teaching Bedside Clinical Skills. JHI Collaboration with Binzhou Medical University medical university in Binzhou, China (delivered via Zoom).   |
| 10/5/21          | COVID-19: Treatments, variants and outlook for the pandemic. Cosmos Club Special Event (delivered via Zoom).   |
| 10/6/21          | Johns Hopkins Congressional Briefing on COVID-19 (delivered via Zoom to congressional staffers on Capitol Hill)  |
| 11/9/21          | Reinvigorating the Physical Exam. Medstar Academic Half-Day (delivered via zoom).  |
| 12/1/21          | The COVID-19 Pandemic: Insights from the frontlines. Keynote Address, Journey of Healthcare Transformation during Pandemic, JHAH/JHI Multidisciplinary Conference, Saudi Arabia (delivered via Zoom).  |
| 12/1/21          | Breakthrough Infections. Journey of Healthcare Transformation during Pandemic, JHAH/JHI Multidisciplinary Conference, Saudi Arabia (delivered via Zoom).   |
| 12/9/21          | The JH-CROWN Registry: COVID-19 ICTR Town Hall, The Johns Hopkins Hospital, Baltimore, MD (delivered via Zoom).  |
| 1/21/22          | Learning from COVID-19 Patients in Real Time. The <a href="#">Johns Hopkins Pandemic Data Initiative Forum</a> , Baltimore, MD (delivered via Zoom).   |
| 4/25/22          | Learning from COVID-19 Patients in Real Time. The Johns Hopkins Women's Board (delivered via Zoom).  |
| 6/3/22           | Learning from COVID-19 Patients in Real Time. Shanxi Bethune Hospital, Shanxi, China (delivered via Zoom).   |
| 10/24/2022       | The Graduate Medical Education Laboratory (GEL). The Johns Hopkins Women's Board, Baltimore, MD  |
| 10/27/2022       | The Graduate Medical Education Laboratory (GEL). Medstar Internal Medicine Grand Rounds, Baltimore, MD   |
| 3/10/2023        | Learning from COVID-19 Patients in Real Time. Peak Hospital Online Conference. West China Hospital of Sichuan University, Chengdu, China (delivered via Zoom)  |
| 3/23/2023        | Learning from Patients in Real Time: Precision Medicine in Action During COVID-19. Sino-US Symposium on International Infectious Diseases: Followup Prevention and Treatment of COVID-19. Kunming Third People's Hospital, Kunming, China (delivered via Zoom) |
| 3/23/2023        | Communication by Press Release, Pre-Print or Publication? Pros and Cons. Office of Research Integrity, Johns Hopkins University School of Medicine, Baltimore MD (delivered via Zoom)  |
| 6/7/2023         | Hopkins on the Hill 2023 presentation "The Johns Hopkins Biocontainment Unit." Kennedy Caucus Room, Russell Senate Office Building, Washington, DC.  |
| 7/12/2023        | Medical System Personnel Development System: The Osler Medical Residency Program. Tongji Hospital, Shanghai, China (delivered via Zoom).   |
| 8/24/23          | Resuscitating the Bedside Exam. GI Division Morning Education Conference Series. The Johns Hopkins Hospital, Baltimore, MD.  |
| 10/4/23          | Building a Collaborative Partnership of RESPTCs. Special Pathogens and Emerging Infectious Diseases Symposium. Washington, DC.   |
| 10/5/23          | Ethical, Legal & Public Health Considerations in the Context of a Special Pathogen Outbreak. Special Pathogens and Emerging Infectious Diseases Symposium. Washington, DC.   |
| 12/13/23         | Learning from Patients in Real Time: Precision Medicine in Action During COVID-19. Lithuanian Health Ministry Delegation (delivered via Zoom).   |
| 2/1/24           | The Road Back to the Bedside. Malone Center Research Lunch. Johns Hopkins University, Baltimore, MD.   |
| 2/15/24          | Getting Back to the Bedside in the ICU. Pulmonary Division Grand Rounds. The Johns Hopkins Hospital, Baltimore, MD.  |
| National<br>2010 | Regulatory T-lymphocytes play a key role in the fibroproliferative response to Acute Lung Injury, American Thoracic Society International Conference, New Orleans, LA  |
| 2011             | The role of Tregs in lung injury repair, Division of Pulmonary and Critical Care Medicine, Pulmonary Research Conference, Wake Forest University, Winston-Salem, NC  |
| 2011             | Regulatory Tcells reduce fibroproliferation after LPS injury by decreasing fibrocyte recruitment to the alveolar space, Respiratory Disease Young Investigator's Forum, Pittsburgh, PA   |
| 2012             | Fibrocytes and Acute Lung Injury Fibroproliferation, Division of Pulmonary and Critical Care Medicine, Pulmonary and Immunology Research Conference, Duke University, Durham, NC   |
| 2014             | New Treatments for Obliterative Bronchiolitis, American Thoracic Society International Conference,   |

San Diego, CA

2015 Lessons Learned from Ebola, National Facilities Management and Technology (NFMT) Conference, Baltimore, MD

2015 Preparing for Ebola and the Next Potential Pandemic: Experience from Emory and Johns Hopkins Infectious Disease: A Health Facility Perspective to a Global Crisis, Health Facility Institute 26<sup>th</sup> Annual Symposium, Atlanta, GA

2015 Creating a Bedside Medicine Culture, Stanford 25 Bedside Medicine Symposium, Stanford University, Palo Alto, CA

2016 Building a biocontainment unit: Lessons learned from The Johns Hopkins Hospital. Organizer and presenter of a Sunrise Seminar, American Thoracic Society International Conference, San Francisco, CA

2016 Creating a Bedside Medicine Culture, Stanford 25 Bedside Medicine Symposium, Stanford University, Palo Alto, CA

2017 The Evolution of Mobile Biocontainment in the United States, American Society of Microbiology Biothreats Conference, Washington DC, 2017.

2017 The Creation of the Johns Hopkins Biocontainment Unit, United States Air Force High Performance Team (HPT) to create an expeditionary biocontainment unit, Alexandria, VA.

2017 Revitalizing the Physical Exam (Plenary Address), Annual Meeting of the Texas American College of Physicians (ACP), San Antonio, TX.

2017 TRIPLE: The Hopkins guide to student preparation for life beyond medical school. Preparing Medical Students to Transition to Residency: Creating a New Paradigm, NYU School of Medicine, New York, NY.

2018 The Johns Hopkins Biocontainment Unit, The National Institute for Occupational Safety and Health, Pittsburgh, PA

2018 Applying Assessment in a US Setting – The Hopkins Way. Third Annual Back to the Bedside Conference. St. Peters Hospital, New Brunswick, NJ.

2018 Reinvigorating the Physical Exam. Medical Grand Rounds, Stanford University, Palo Alto, CA.

2018 Direct Observation and Feedback to Improve Physical Examination Skills. American Board of Medical Specialties (ABMS) Annual Meeting, Las Vegas, NV.

2019 Update on the Johns Hopkins Biocontainment Unit. National Ebola Training and Education Center (NETEC) Annual Summit, Denver, CO.

2019 Resuscitating the Bedside Clinical Exam. Medical Grand Rounds, Wake Forest University, Winston-Salem, NC.

2019 An evidence-based approach to dyspnea. Medicine Noon Conference, Wake Forest University, Winston-Salem, NC.

2019 Teaching at the Bedside. 4<sup>th</sup> Annual IP Fellows Career Symposium, Association of Interventional Pulmonology Program Directors (AIPPD). Orlando, FL.

2020 Novel Methodologies to Enhance Staff Safety in a Biocontainment Unit. American Society of Microbiology Biothreats Conference, Arlington, VA.

2020 Medical Education and COVID 19: The GEL Study Pre and Post COVID. Medical Grand Rounds, University of Alabama at Birmingham, Birmingham, AL (delivered via Zoom).

1/31/21 Building the plane while flying it: Developing a research infrastructure during a changing pandemic. The Society of Thoracic Surgeons International Conference (delivered via Zoom).

1/31/21 Entering the Lion's Den: Conquering the COVID Unknown. The Society of Thoracic Surgeons International Conference (delivered via Zoom).

3/23/21 The Physical Exam: Past, Present and Future. Medical Grand Rounds, St. Peter's University, New Brunswick, NJ (delivered via Zoom).

4/13/21 A formative assessment to teach clinical skills. AMA Change Med Ed Conference (delivered via Zoom).

4/15/21 Flying the Plane While Improving It – Learning from COVID-19 Patient Data in Close to Real Time. COPSS-NISS COVID-19 Data Science Webinar Series (delivered via Zoom).

5/14/21 The JHM COVID-19 Experience. Pulmonary Grand Rounds, Norwalk Hospital, NJ (delivered via Zoom).

5/25/21 Health Executive Leadership Network (HELN) Forum on COVID-19 (delivered via Zoom).

5/25/21 Using Informatics to Advance Use, Safety, and Effectiveness of COVID-19 Medical Products. Webinar on COVID-19 informatics hosted by Johns Hopkins and the FDA (delivered via Zoom)

6/9/21 Pilot survey of HLIU staff attitudes about host genomics – prior to COVID. National Ebola Emerging Special Pathogens and Treatment Center (NETEC) Annual Conference, Atlanta, GA. (delivered via Zoom)

- 10/25/21 Decision Making Challenges Evolving Crisis Standards of Care & Ongoing Lessons from COVID-19: A workshop Series. National Academies of Sciences, Engineering and Medicine (delivered vis Zoom).
- 11/3/21 The future of big data in the response to public health emergencies: Lessons learned from the COVID-19 pandemic. IEEE/CHASE 2021 Conference on Connected Health Applications, Systems, and Engineering Technologies. Washington, DC.
- 7/26/22 The Graduate Medical Education Laboratory. Medical Grand Rounds. St. Peter's Hospital, New Brunswick, NJ.
- 2/6/23 Applying Precision Medicine to COVID-19. Annual Interdisciplinary Conference. Jackson Hole, Wyoming.
- 2/24/23 Barondess Fellowship Recipients Present: Reinvigorating the Patient-Physician Relationship. ACGME National Conference, Nashville, TN.
- 3/10/23 GME Insight Network: Improving Resident Burnout and Clinical Skill. American Medical Association Webinar, Zoom.
- 5/22/23 The Approach to the Pulmonary Exam. Conference with Internal Medicine Residents. Northwestern University Feinberg School of Medicine. Chicago, IL.
- 5/23/23 Resuscitating the Bedside Exam. Today's Innovation in Medical Education (TIME) Lecture Series. Northwestern University Feinberg School of Medicine. Chicago, IL.
- 9/29/23 The Relationship Between Time at the Bedside, Clinical Skills, and Burnout. AMA Change MedEd Conference. Chicago, IL.
- 11/28/23 Racial Disparities in Pulse Oximetry. Yale Internal Medicine Residency Programs' Race, Bias, and Advocacy in Medicine (RBAM) Distinction Pathway. New Haven, CT (delivered via Zoom).
- 1/25/24 Racial Disparities in Pulse Oximetry. The Annual Interdisciplinary Conference. Jackson Hole, WY.
- 2/2/24 Resuscitating the Bedside Exam. Hackensack Meriden Health GME Faculty Development Series. Hackensack, NJ (delivered via Zoom).

#### International

- 2013 Interstitial Lung Disease: State of the Art, International Center of Excellence at Yangon University, Yangon, Myanmar
- 2013 Interventional Pulmonology: An Update for the Practicing Pulmonologist, International Center of Excellence at Yangon University, Yangon, Myanmar
- 2013 Pleural Disease in the 21<sup>st</sup> Century, International Center of Excellence at Yangon University, Yangon, Myanmar
- 2014 Bronchiolitis Obliterans Organizing Pneumonia – An Interactive Case, Department of Medicine, Medical Grand Rounds, Hospital Kuala Lumpur, Kuala Lumpur, Malaysia
- 2017 Rekindling the culture of bedside medicine: A novel methodology to assess and teach bedside physical exam skills. 10<sup>th</sup> International Conference of Education, Research and Innovation, Sevilla, Spain.
- 2018 Direct observation and feedback to teach the physical exam to graduate medical trainees. 11<sup>th</sup> International Conference of Education, Research and Innovation, Sevilla, Spain.
- 2019 Reinvigorating the Bedside Clinical Exam. McMaster International Review Course in Internal Medicine (MIRCIM). Krakow, Poland.
- 2019 The Impact of Deliberate Practice and Assessment on Clinical Skills Attitudes, Knowledge and Performance. Medical Education Forum. Krakow, Poland.
- 2019 Resuscitating the Bedside Clinical Exam. Diagnostic Medicine Symposium. Royal College of Physicians of Edinburgh. Edinburgh, Scotland.
- 2019 Revitalizando el examen físico para practicar en el siglo (Revitalizing the physical exam for the 21<sup>st</sup> century – delivered in Spanish). 27<sup>th</sup> National Congress of Medicine, Buenos Aires, Argentina.
- 2020 The first 2 weeks of COVID-19 at The Johns Hopkins Hospital. Royal College of Physicians of Edinburgh Weekly COVID Conference. Online live talk to 4500 members of the RCPE and other guests from around the world.
- 2020 The JHM COVID-19 Experience. World Molecular Imaging Society Imaging of Infection Webinar Series (delivered via Zoom).
- 2020 The Physical Exam: Past, Present and Future? Society of Acute Medicine Annual Conference, Glasgow, Scotland (delivered via Zoom).
- 2020 COVID-19 Update, Citigroup Leadership, Baltimore, MD (delivered via Zoom)
- 2/16/21 COVID-19 Update, Citigroup Leadership, Baltimore, MD (delivered via Zoom)
- 4/28/21 The Physical Examination: Past, Present and Future. Expert Seminar in Educational Scholarship. Queen's University, Belfast, Northern Ireland (delivered via Zoom with Dr. Andrew Elder, President, Royal College of Physicians of Edinburgh)

- 5/20/21 Assessing and teaching bedside clinical skills through telemedicine. Medical Education Forum. Krakow, Poland (delievered via Zoom).
- 5/20/21 Battling COVID-19: The Johns Hopkins COVID-19 Precision Medicine Center of Excellence. McMaster International Review Course in Internal Medicine (MIRCIM). Krakow, Poland (delivered via Zoom).
- 5/27/21 Learning from experience: real world evidence for COVID-19 therapeutics from the USA. Educational session for European physicians, sponsored by Gilead. Switzerland (delivered via Zoom).
- 9/9/21 The role of antiviral therapy in the management of hospitalised patients with COVID-19 – a focus on real-world evidence. 14<sup>th</sup> International Symposium on Antimicrobial Agents and Resistance (ISAAR), Korea (delivered via Zoom).
- 9/9/21 The multifaceted approach to COVID-19 management, with a focus on antiviral therapy. 14<sup>th</sup> International Symposium on Antimicrobial Agents and Resistance (ISAAR), Korea (delivered via Zoom).
- 10/27/21 The real-world effectiveness of COVID-19 therapeutics. Society of Infectious Disease of Argentina Conference Symposium (delivered via Zoom).
- 11/29/21 Reinvigorating the Physical Exam. The 1<sup>st</sup> Global Vision Week. Nanjing Drum Tower Hospital, Nanjing, China (delivered via Zoom).
- 9/21/22 Applying Precision Medicine to COVID-19. Pacific Rim Health Innovations Conference. Sun Yat-sen University, Guangzhou, China (delivered via Zoom).
- 11/7/22 The Physical Exam in a Telemedicine Sphere. The International Conference of Education, Research and Innovation, Sevilla, Spain.
- 5/17/23 Aprendiendo de los pacientes en tiempo real: medicina de precisión y COVID-19 (Learning from patients in real time: precision medicine and COVID-19). Congress of the Internal Medicine Association of Rosario (AMIR). Rosario, Argentina (delivered via Zoom in Spanish).

#### Oral/Podium Presentations

1. **Garibaldi, B.** Pancreatico-Broncho-Cutaneous Fistula from Necrotizing Pancreatitis. Presented at Chest, 2008 (Awardee, Best case report in Interventional Bronchology).
2. **Garibaldi B,** D'Alessio F, Files DC, Chau E, Sidhaye R, Fraig M, King LS. Regulatory T-lymphocytes Play a Key Role in the Fibroproliferative Response to Acute Lung Injury. Presented at ATS, 2010 (speaker).
3. **Garibaldi B,** D'Alessio F,Mock J, Files DC , Chau E, Aggarwal N, Sidhaye R, King LS. Regulatory Tcells reduce fibroproliferation after LPS injury by decreasing fibrocyte recruitment to the alveolar space. Presented at the Respiratory Disease Young Investigators' Forum, 2011 (Awardee, Best basic science presentation).
4. Drewry D, Rainwater-Lovett K, Pilholski T, Sage FC, Shaw-Saliba K, Sauer L, Bova G, Hamel J, Drewry D, **Garibaldi B.** Transmission of Fluorescent Aerosolized Particles in a Clinical Biocontainment Unit. Presented at the American Society of Microbiology Biothreats Conference, Washington DC, 2017.
5. Liu G, Shin S, Goerlich E, Zhang C, Nassery N, Madrazo J, **Garibaldi B.** Attitudes, Knowledge, and Clinical Application of Point of Care Ultrasound: A Needs Assessment of Internal Medicine Interns. Johns Hopkins Institute for Excellence in Education (IEE) Conference and Celebration, Baltimore, MD, April 2018.

#### Other

1. Honoring our Pandemic Experience (HOPE) Initiative and Music for a While – play live guitar in the Weinberg Pavilion, Johns Hopkins Outpatient Center and Balducci's as part of a collaborative with Peabody Conservatory. Performance dates: March 8, March 22, March 24, December 13, 2022; May 1, July 12, August 1, August 7, 2023.
2. Peabody Preparatory – Guitar lessons with Gregory Hayes and Leonard Ranallo; June 2021-present
3. Played introductory guitar music for medical grand rounds; April 22, 2022, March 10, 2023, May 5, 2023
4. Played original guitar music during the HOPE Service of Remembrance, Gratitude and Hope, December 14, 2022
5. Original guitar compositions played on WYPR morning edition by Ashley Sterner on several occasions in 2022 and 2023
6. Played in Peabody Preparatory Recital on May 17, 2022 and May 10, 2023. Griswold Hall, Peabody Conservatory, Baltimore, MD.