

# GUSTAVO CUMBO-NACHELI, MD FCCP DAABIP

## EDUCATION

- Undergraduate. 03/91 - 11/95 Escuela Superior de Comercio. Bachelor - Finance. Rosario, Argentina
- Graduate. 03/96 – 12/02 Medical Doctor. Universidad Nacional de Rosario. Rosario, Argentina

## TRAINING

- 07/09-06/12 Pulmonary and Critical Care Medicine Fellowship. Cleveland Clinic Foundation. Cleveland, Ohio.
- 07/06-06/09 Internal Medicine Residency. Wayne State University School of Medicine, Detroit, Michigan.
- 07/05-06/06 General Surgery. Preliminary year. Grand Rapids-Michigan State University Program, Grand Rapids, Michigan.
- 07/04-06/05 Junior researcher. Van Andel Research Institute. Grand Rapids, Michigan.
- 01/04-06/04 General Surgery Internship. Sanatorio de la Mujer Hospital. Rosario, Argentina.
- 05/03-11/03 Internal Medicine / Pediatrics Internship. Roque Saenz Pena Hospital. Rosario, Argentina.

## ACADEMIC/CLINICAL APPOINTMENTS

- 07/2012-Present. Bronchoscopy and Interventional Pulmonology. Pulmonary and Critical Care Medicine Division. Corewell Health West Michigan. Grand Rapids, Michigan.
- 7/2012-Present. Associate Clinical Professor. Michigan State University School of Human Medicine.
- 09/2017-8/2021. Associate Program Director. Pulmonary and Critical Care Fellowship Corewell Health / Michigan State University. Grand Rapids, Michigan

## BOARD CERTIFICATIONS

- Internal Medicine. 2009-2022
- Pulmonary Medicine. 2012-Present
- Critical Care Medicine. 2013-Present
- Interventional Pulmonology. 2016- Present

## **AREAS OF INTEREST**

- Interventional Pulmonology. Rigid and robotic bronchoscopy. Cone beam CT. Ablation, bronchoplasty/stenting. Endoscopic lung volume reduction. Endobronchial Ultrasonography. Pleural diseases.
- Medical Innovation. Development of strategic and operational plans for innovative approaches in the realm of lung nodule/cancer, artificial intelligence, and robotic and advanced image guidance.
- Medical Education. Mentoring pathways. QI initiatives.
- Research Committee Co-Chair. Prospective trial design/Lead investigator.
- Hospital/service Administration. Development of clinical and procedural service lines. Value analysis team. Recruitment and wellness Committees.
- Clinical excellence and patient experience liaison. Personalized Medicine. Concierge services.
- Business development. Marketing strategies. Implementation of maturity models for operative deployment. Systems optimization, Informatics, and Analytics/QI teams leading to value care enhancement.
- Telemedicine- Virtual Health. Development of patient access programs and systems integration. EMR model development.
- Philanthropy ambassador. Corewell Health Foundation.

## **ADMINISTRATIVE EXPERIENCE**

Director of Bronchoscopy and Interventional Pulmonology

- Procedural service lines and protocol development
- Financial analysis and equipment acquisition
- Training/mentoring program development
- Internal quality control. Benchmarking

President. Society for Advanced Bronchoscopy (SAB).

- Development of society department strategic goals, objectives, and budgets.
- Board member for credit and contract administration.

## **ACADEMIC APPONTMENTS**

03/2000 - 12/2004. Teaching Assistant. Radiology Department. Universidad Nacional de Rosario. Argentina.

07/2019 – 8/2021. Associate Program Director. Pulmonary Critical Care Fellowship Program.

- Curriculum development. Lectures, Didactics, Workshops
- Mentoring, Simulation center.
- Chair. Program overview committee.
- Chair. Clinical excellence committee.
- Co-Chair. Research planning committee.

## LICENSURE

2005 - Present. USA. Educational Commission for Foreign Medical Graduates. #06569974  
2005 - Present. Michigan # 4301086233.  
2004 - Present. Spain. #2004/H05623.

## AWARDS/RECOGNITIONS

- Jun 2008. Kareem Bazy Research Award for academic achievement. Wayne State University. Jun 2009. Senior resident of the year. Wayne State University.
- Dec 2010. Physician communication champion. Cleveland Clinic Foundation.
- Aug 2018. Impact of Interventional Pulmonology on Overall Bronchoscopy Procedures in the Setting of a Multidisciplinary Lung Cancer Team. AABIP Conference. Denver, CO.
- Jun 2018. Innovation in Interventional Pulmonology. 1M\$ awarded for Programs Development, Innovation, Quality Improvement and Research Initiatives.
- Oct 2018. Connect to Community Award. Corewell Health Medical Group Board of Directors.
- Apr 2019. Vanguard Award. Transformation of medical interventions in bronchoscopy-robotics.
- May 2021-2024. Top Doctors in Grand Rapids – Pulmonology and Critical Care.

## Leadership training

- 2018. Aspiring Leaders Program. Corewell Health University
- 2019. Futures Program. Corewell Health University
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## Leadership Positions

- Jan 2018 - Present. Co-Chair. Multi-Specialty Team / Lung Cancer Clinic Research Committee.
- Jan 2018-Present. Advisor/Co-chair. Brain Trust Pulmonary – EPIC - Electronic Medical Records steering committee.
- Jan 2018-Dec 2020. Chair, Education Committee. Society for Advanced Bronchoscopy.
- Feb 2019 – Jan 2020. Advisor. Virtual Health – Telemedicine program development.
- Jan 2019-Dec 2020. Treasurer. Society for Advanced Bronchoscopy.
- Jan 2020 – Present. Member. SHMG Pulmonology and Critical Care Division Wellness committee.
- Jan 2020 – Present. Member. SHMG Pulmonology and Critical Care Division Executive committee.
- May 2020 – Present. LUMENS/EPIC Pulmonary Advisory Board.
- Jan 2021-Dec 2022. Vice President. Society for Advanced Bronchoscopy.
- Jan 2023- Present. President. Society for Advanced Bronchoscopy.
- Jan 2023- Present. Board of Regents. World Association for Bronchoscopy and Interventional Pulmonology (WABIP)

## RESEARCH ACTIVITIES

### PUBLICATIONS

1. **Cumbo-Nacheli G**, et al. Proximal esophageal adenocarcinoma presenting as a thyroid mass: case report and review of the literature. *Thyroid* 2007; 17(3): 267-269.
2. **Cumbo-Nacheli G**. Severe constipation. *N Engl J Med* 2008; 358(22): e26.
3. **Cumbo-Nacheli G**, et al. Anticonvulsant Hypersensitivity Syndrome: is there a role for immunomodulation? *Epilepsia* 2008; 49(12):2108-12.
4. **Cumbo-Nacheli G**, et al. Persistently Low Glucose Levels Despite High dose Methylprednisolone in a Woman with Mixed Connective Tissue Disease. *Eur J Intern Med* 2008; 19(6): e18-9.
5. de Sanctis JT, **Cumbo-Nacheli G**, et al. HIV-associated nemaline rod myopathy: role of intravenous immunoglobulin therapy in two persons with HIV/AIDS. *The AIDS Reader* 2008. 18(2): 90-94.
6. **Cumbo-Nacheli G**, et al. Autofluorescence pattern in tracheobronchopathia osteochondroplastica. *J Bronch & Interv Pulm* 2010; 17(4): 368-369.
7. **Cumbo-Nacheli G**, et al. Bioavailability of fondaparinux to critically ill patients. *J Crit Care* 2011; 26(4):342-6.
8. **Cumbo-Nacheli G**, et al. Mucoïd plugs in eosinophilic pneumonia. *J Bronch & Interv Pulm* 2011; 18(3): 257–258.
9. Mira-Avendano I, **Cumbo-Nacheli G**, et al. Tracheal MALT-lymphoma. Report of a case and literature review. *J Bronch & Interv Pulm* 2012; 19(1): 44–46.
10. **Cumbo-Nacheli G**, et al. Pseudallescheria Boydii pneumonia in an immunocompetent host. *Am J Case Rep* 2012; 13 CR163-165.
11. **Cumbo-Nacheli G**, et al. A near fatal case of invasive aspergillosis. *Am J Case Rep* 2012. 13 CR169-172
12. **Cumbo Nacheli G**, et al. Novel device (AirWave™) to assess endotracheal tube migration. A pilot studies. *J Crit Care* 2013; 28(4): 535.e1-535.e8. Completed with Grant (\$10,000).
13. Ravid K, **Cumbo-Nacheli G**, et al. Traumatic expulsion of tracheal rings – an airway emergency. *J Bronchology Interv Pulmonol.* 2018 Jul;25(3): e34-e36.
14. Chaddha U, **Cumbo-Nacheli G**, et al. Robot-assisted bronchoscopy for pulmonary lesion diagnosis: results from the initial multicenter experience. *BMC Pulm Med* 2019; 19, 243
15. Pritchett M, **Cumbo-Nacheli G**; et al. Society for Advanced Bronchoscopy Consensus Statement and Guidelines for bronchoscopy and airway management amid the COVID-19 pandemic. *J Thorac Dis* 2020. <http://dx.doi.org/10.21037/jtd.2020.04.32>
16. **Cumbo-Nacheli G**, et al. Negative Pressure Aerosol Chamber – A portable barrier device for bronchoscopy. *J Bronchology Interv Pulmonogy* 28(1):e7-e10, January 2021.
17. Geriani D, **Cumbo-Nacheli G**, et al. A Look into the Future of Cone-Beam Computed Tomography Assisted Electromagnetic Navigational Bronchoscopy. *Am J Respir Crit Care Med* 2020; 201: A6805

18. Chhaya R, Lam G, Egan J, **Cumbo-Nacheli G**. The Use of Robotic Bronchoscopy for Visceral Pleural Marking Prior to Surgical Resection of Pulmonary Nodules. *J Pulm Res Med*. 10:4,2020 DOI: 0.4172/2161-105X.10.502
19. Chhaya R, Egan J, **Cumbo-Nacheli G**. Metastatic pulmonary angiosarcoma presenting with diffuse alveolar hemorrhage: a rare complication of a rare disease. *Chest* 2019. 156:4, A269. doi.org/10.1016/j.chest.2019.08.325
20. Navarrete R, **Cumbo-Nacheli G**. Usefulness of Pulmonary Artery Catheter in the Evaluation of Alveolopleural Fistulas. *Arch Bronconeumol* 2020 Oct 22;S0300-2896(20)30386-0.
21. Gonuguntla HK, Shah M, Gupta N, Agarwal S, Poletti V, **Cumbo-Nacheli G**. Endobronchial ultrasound-guided transbronchial cryo-nodal biopsy: a novel approach for mediastinal lymph node sampling. *Respirology* 2021. <https://doi.org/10.1002/rcr2.808>
22. Sinniah R, **Cumbo-Nacheli G**. A Riddle, Wrapped In A Mystery: Monoclonal B Lymphocytosis Discovered During The Evaluation Of A Mediastinal Incidentaloma. *CHEST* 2021. 160(4), A1287.
23. **Cumbo-Nacheli G**, et al. Robotic-assisted Bronchoscopy and Cone-beam CT: A Retrospective Series. *J Bronchology Interv Pulmonol*. 2022 Oct 1;29(4):303-306. doi: 10.1097/LBR.0000000000000860. Epub 2022 Aug 2.
24. **Cumbo-Nacheli G**, et al. Bronchoscopy in Patients With Known or Suspected COVID-19: Results From the Global Pandemic SARS-CoV-2 Bronchoscopy Database (GPS-BD). *J Bronchology Interv Pulmonol*. 2022 Apr 1;29(2):146-154.
25. Khan F, Seaman J, Hunter TD, Ribeiro D, Laxmanan B, Kalsekar I, **Cumbo-Nacheli G**. Diagnostic outcomes of robotic-assisted bronchoscopy for pulmonary lesions in a real-world multicenter community setting. *BMC Pulm Med*. 2023 May 9;23(1):161. PMID 37161376
26. Spray Cryotherapy for Benign Large Airway Stenosis: A Multicenter Retrospective Cohort Study of Safety and Practice Patterns. Ratwani AP, Lentz RJ, Chen H, Schwartz E, Roller L, Shojaee S, Shepherd W, Noor Ul Husnain SM, Senitko M, Guo Y, **Cumbo-Nacheli G**, et al. *Interventional Pulmonary Outcomes Group (IPOG). Journal of Bronchology & Interventional Pulmonology*. 31(1):63-69, Jan 2024. PMID 37246305

### **National Meeting Presentations**

Van Andel Research Institute. Scientific Retreat. Grand Rapids, MI. May 2004

1. An integrated approach to a translational program for Multiple Myeloma
2. Detecting B-Raf and Ras mutations in human sarcomas and sarcoma-derived cell lines
3. cDNA microarray of colorectal cancer tumors, related to metastasis and response to chemotherapy
4. External Jugular Vein catheterization in nude mice.

Michigan State University / Grand Rapids Medical Education & Research Center Research Division. Grand Rapids, MI. Apr 2005

1. Clostridium Difficile in a community hospital. *Epidemiology and Prevention*

Wayne State University 13th Annual Resident Research Meeting, Detroit, MI. May 2007

1. Crisis in residency programs: impact on house staff
2. Raynaud's-Associated Pseudohypoglycemia
3. Anticonvulsant Hypersensitivity Syndrome: Role of Supportive Measures in Liver Failure
4. Lupus Cerebritis

ACP Michigan Chapter Meeting, Kalamazoo, MI. Sep 2007

1. Anticonvulsant Hypersensitivity Syndrome. Role of supportive Measures in Liver Failure
2. Left Sided Weakness. An Unusual Presentation of Systemic Lupus Erythematosus

Society of Critical Care Medicine. Annual Congress, Honolulu, HI. Feb 2008

1. Pharmacokinetics of fondaparinux in critically ill patients.

Cleveland Clinic Respiratory Institute Research Day. Cleveland, OH. Dec 2010

1. Which patients get central line-associated bloodstream infections?
2. Mucosal associated lymphoid tissue lymphoma of the trachea
3. Diagnostic accuracy of lower respiratory tract rt-pcr in influenza pneumonia

Society of Critical Care Medicine. Annual Congress, San Diego, CA. Jan 2011

1. Barotrauma in patients with Influenza-A induced ALI/ARDS; ventilator settings or disease severity?

CHEST. Annual Congress, Honolulu, HI. OCT 2011

1. Central Line-Associated Bloodstream Infections (CLABSI) in a large Medical Intensive Care Unit. Chest 2011 140:4 Meeting Abstracts 272A.
2. An Unusual Case of Pseudallescheria Boydii Pneumonia in an Immunocompetent Host. Chest 2011; 140:4 Meeting Abstracts 18A.
3. Pulmonary Artery Pressure and Right Ventricular Evaluation after Unilateral Pneumectomy. Chest 2011; 140:4. Meeting Abstracts 708A.

CHEST. Annual Congress, Atlanta, GA. OCT 2011

1. Day to Day Change in Procalcitonin (PCT) and Lactate to Predict Sepsis and Hospital Mortality. CHEST 2012 142:285A.
2. Usefulness of Advanced Diagnostic Bronchoscopic Techniques Among Lung Transplant Recipients with Pulmonary Nodules. CHEST 2012 142:1092A.

World Congress of Bronchology and Interventional Pulmonology. Kyoto, Japan. JUL 2014

2. Advanced diagnostic bronchoscopic techniques among lung transplant recipients with pulmonary nodules. IP-SY6-3.

ATS. Annual Congress. San Francisco, CA. MAY 2016

1. When Zebras Gallop: Isolated Pulmonary Granulomatosis with Polyangiitis Presenting Solely as Acute Respiratory Distress Syndrome. AJRCCM 2016;193: A1381

World Congress of Bronchology and Interventional Pulmonology. Rochester, MN. JUL 2018

1. Development of advanced bronchoscopic service lines. The maturity model framework.
2. Setting up a tumor board. How do others do it? A comprehensive plan for an Interventional Pulmonologist' Success.

AABIP. Inaugural Conference. Denver, CO. AUG 2018

1. Dornase alfa as a rescue agent for endobronchial stent occlusion.

AABIP Conference. Denver, CO. AUG 2019

1. Comparison of Medical Thoracoscopy Service Lines between a University and Community Hospital Systems
2. Robotic Bronchoscopy for Visceral Pleura Marking Prior to Resection

ATS 2021

1. Stent Salvage in Malignant Airway Obstruction. TP038.

2<sup>nd</sup> International Congress on Robotic Assisted Bronchoscopy and Ablation. Brescia, ITALY. 2024

1. Current evidence and future developments of Monarch platform

## **ORAL PRESENTATIONS**

1. Bitemporal Cavernomas. XLVI Neurosurgical symposium. Buenos Aires, Argentina. December 2004
2. Colorectal Cancer: Gene Expression Profiles Associated with Metastatic Outcome and Response to Chemotherapy. Community Health Research Day. Grand Rapids, MI. April 2006
3. Fluid responsiveness in Septic Shock. Session Chair. CHEST. Montreal, Canada. October 2015.
4. Cardiogenic Shock for the Intensivist When Conservative Approach Fails. Session Chair. CHEST. Los Angeles, CA. October 2016
5. Approach to Pleural Disease. IV Pulmonary and Critical Care Symposium. Grand Rapids, MI. June 2017
6. AKI in the ICU. Session Chair. CHEST. Toronto, Canada. October 2017
7. Panel presentation: Approach to Pleural Disease.. Session Chair. CHEST. Oct 2017
8. Cryobiopsies in ILD. Argentinean Bronchoscopy Society. Mendoza, Argentina. April 2018
9. Innovation in Central airway obstruction management. Argentinean Bronchoscopy Society.
10. Mendoza, Argentina. April 2018

11. Traumatic Bronchial Injury. World Congress of Bronchology and Interventional Pulmonology. Rochester, MN. June 2018
12. Impact of Interventional Pulmonology on Overall Bronchoscopy Procedures in the Setting of a Multidisciplinary Lung Cancer Team. AABIP Inaugural Conference. Denver CO. August 2018
13. Workup for benign lung diseases. AABIP Certificate of Added Qualification in Advanced Diagnostic
14. Intraabdominal syndromes in the ICU. Session Chair. CHEST. Oct 2018.
15. Bronchoscopy Review Course. Denver CO. August 2019
16. Bronchoscopy Billing. AABIP Certificate of Added Qualification in Advanced Diagnostic Bronchoscopy Review Course. Denver CO. August 2019
17. Innovation in Lung Cancer Diagnosis and Treatment. Lemmen-Holton Cancer Center Symposium. Grand Rapids, MI. Sept 2019
18. Robotic Bronchoscopy as a Novel Approach for Pleural Inking Pre-Surgical Resection. CORE meeting. Las Vegas, NV. Sept 2019
19. Cone Beam Computed Tomography integration with Robotic Bronchoscopy Systems. CORE meeting. Las Vegas, NV. Sept 2019
20. Resuscitation in Sepsis. Now What Should We Do? Session Chair. CHEST. New Orleans, LA. October 2019
21. Palliative Care in End Stage Nonmalignant Lung Disease: Treatment Options and Management Strategies. CHEST. New Orleans, LA. October 2019
22. Central Airway Obstruction. Therapeutic Considerations. Argentinean Association Respiratory Medicine National Meeting. Rosario, Argentina. Nov 2019
23. Innovation in diagnostics of Peripheral Lung Diseases. Argentinean Association of
24. Respiratory Medicine National Meeting. Rosario, Argentina. Nov 2019
25. Palliation and Compassionate Care. Schwartz Conference. Grand Rapids, MI. Nov 2019
26. Lung Cancer Diagnosis and Patient Management During the COVID-19 Pandemic. Society for Advanced Bronchoscopy. Apr 2020
27. Continuing Lung Cancer Diagnosis, Workup, & Care Across the Corewell of the COVID-19 Pandemic - Webinar. Society for Advanced Bronchoscopy. Sep 2020
28. The Future Now: Implementing Cone Beam CT-guided endobronchial ablation therapy. Sep 2020
29. Strategies for Covid-19 and COPD management. Michigan Society for Respiratory Care. Oct 2020
30. Multimodal Treatment Strategies for Lung Cancer. Argentinean Bronchoscopy Society. Virtual National Meeting. Argentina. November 2020
31. Mi-COVID19 Webinar Series. Tracheostomy in the ICU. Dec 2020.
32. Innovation in Lung Cancer Care. Nursing in Lung Cancer Care symposium. Grand Rapids, MI. April 2021.
33. COPD lecture series. Endoscopic Lung Volume Reduction Webinar. June 2021.
34. Chair. Robotic bronchoscopy. Case selection and optimizing diagnostic yield.2021. AABIP Annual Conference. Baltimore, MD. August 2021.
35. Clinical assessment training course. Sept 2021.
36. Innovation in COPD. Endoscopic Lung Volume Reduction webinar. Oct 2021.
37. Eyes on the Prize. Challenges on peripheral Lung Navigation. SAB Roundtable. OCT 2021.
38. Robotic bronchoscopy – state of the art. Bronchus International Meeting. Hyderabad, India. OCT 2021.



39. Small Cell Lung Cancer Steering Board Member. Nov 2021.

### **Academic Activities**

- Feb 2007. Trainer. ACLS/BLS instructor.
- Jan 2008. Trainer - Bedside Procedures Workshop. Michigan State University PCCM program.
- Jan 2011. Instructor. CHEST - Physical Examination Program.
- Sep 2016- Present. Director. Live Animal Lung Lab for Interventional Pulmonology Techniques. Bimonthly educational series.
- May 2017 - Present. Director. Biological Lung Model workshop for bronchoscopy.
- Jul 2017 – Present. House Staff Monthly Lecture Series. Airway Workshop.
- Jan 2019. Presenter. Bronchoscopy Webinar Series – conquering the periphery.
- Feb 2019. Panelist. Interventional Pulmonology integration with thoracic surgery: a paradigm change.
- Feb 2019. Panelist. Robotic Bronchoscopy Lecture series. Feb 2019.
- Mar 2019. Panelist. Unexplained Dyspnea. Heart and Vascular Institute Summit.
- Feb 2020. Instructor. Airway and bronchoscopy workshop – PCCM Fellowship.
- Mar 2020. Bronchoscopy International. GPS (Global Pandemic SARS-COVID19) database design and implementation.
- Mar 2020. Reviewer. Bronchoscopy International. COVID-19 literature registry.
- Jan 2021 - Present. Multispecialty Lung Nodule Patient Rapid ACCESS team. Chair.
- April 2022. Instructor – Chair. Difficult airway and emergencies workshop. PCCM Fellowship.
- April 2023. Instructor – co- Chair. Difficult airway and emergencies workshop. PCCM Fellowship.
- Jul 2023 – Chair. Airway and ICU procedures workshop. PCCM Fellowship.
- Jul 2023 – Chair. Bronchoscopy workshop. PCCM Fellowship.
- Advanced Airway Workshop. Surgical Techniques. Corewell Health, Grand Rapids, MI April 2024
- Jul 2024 – Chair. Airway and ICU procedures workshop. PCCM Fellowship.
- Jul 2024 – Chair. Bronchoscopy workshop. PCCM Fellowship.

### **RESEARCH – Other**

7/04- 6/05 Van Andel Research Institute. Grand Rapids, Michigan

- Laboratory benchwork: molecular cloning. Preparation of reagents and buffers. RNA and DNA extraction, purification, and analysis. In vitro amplifications by PCR and Western Blot assays. Cell cultures.
- Development of electronic research databases by managing and processing patient clinical data. XenoBase data entry and statistical analysis.

- Experimental microsurgery research in rodents - new techniques development: central access placement in mice for Anthrax toxin delivery as a proposed therapy against various types of cancer.
- Translational research. Program Development in Multiple Myeloma Therapeutics.

### **Reviewer in Peer Reviewed Journals**

- Annals of Transplantation
- Journal of Critical Care
- Medical Education Journal
- Medical Decision Making
- Journal of Postgraduate Medicine
- Case Reports in Pulmonology
- Journal of Graduate Medical Education
- Indian Journal of Critical Care Medicine

### **INDUSTRY EXPERIENCE**

- J&J. Robotic Bronchoscopy Platform. Product development. Education, marketing. Administrative consulting – advisory board lead. Key Opinion Leader.
- GE. Cone beam CT technology - oncology. Product development. Education, marketing consultant. Business development, administrative consulting – advisory board lead. Key Opinion Leader.
- Siemens. Cone beam CT technology - oncology. Educational Consultant. Business development, marketing. Key Opinion Leader.
- Astra-Zeneca. Oncology – therapeutics. Educational consultant.
- Proximie. Virtual Platform –telemedicine, proctoring, precepting. Educational Consultant. Business development., Marketing. Key opinion leader
- EPIC. Electronic Medical Record platform. Educational Consultant. Product development.