

CURRICULUM VITAE - ABSTRACT

NAME: Peter D. Sottile, MD

RANK: Associate Professor

I. EDUCATION

School/Program	Degree	Date
Dartmouth College	Bachelor of Arts	2001-2005
University of Michigan	Medical Doctorate	2005-2009
University of California	Internal Medicine Residency	2009-2012
University of Colorado	Pulmonary and Critical Care Fellowship	2012 - 2015

II. PROFESSIONAL EXPERIENCE

Institution	Rank	Dates
University of Colorado, Pulmonary Sciences and Critical Care Medicine	Associate Professor	6/2025 - present
University of Colorado, Pulmonary Sciences and Critical Care Medicine	Assistant Professor	6/2016-6/2025
University of Colorado, Pulmonary Sciences and Critical Care Medicine	Instructor	6/2015 - 6/2016

III. TEACHING ACTIVITIES

My teaching activities have centered around four major areas. First, the bedside teaching of medical students, residents, and fellows during clinical rounds and morning didactic sessions while attending in the Medical Intensive Care Unit (MICU). Second, formal lectures to medical and graduate students, including lectures on pneumonia, mechanical ventilation, and professional conduct in research. Third, I am a member of the Respiratory Therapy (RT) Residency Advisory Committee and teach several of the RT's courses as part of this program. Finally, I have been a junior research mentor for five residents, one graduate student, and two fellows.

IV. CLINICAL ACTIVITIES

Inpatient Service: Before obtaining my K23 and during the 2016 - 2019 academic years, I attended the MICU 6 weeks/year (0.25 CFTE) and the VA Surgical ICU 8 weeks/year ($\frac{2}{3}$ s CFTE). During my K23 (2019-2024), I attended the MICU 6 weeks/year (0.25 CFTE), and during the 2023-2026 academic years, I attended 8 weeks/year (0.35 CFTE). As a MICU attending, I am responsible for all patients admitted to one of three MICU services, which includes MICU and medicine step-down admissions. I lead a multidisciplinary team of physicians, fellows, residents, nurses, respiratory therapists, pharmacists, physical therapists, occupational therapists, social workers, and necessary consultants. On average, each attending covers 15-20 patients per day. During this time, I also manage all MICU consults, MICU procedures (central line, arterial line, intubation, thoracentesis, paracentesis, lumbar puncture, bronchoscopy, and chest tube placement), and daily MICU resident/fellow teaching. Finally, I closely interact with families as they grapple with the realities of critical illness, including end-of-life care.

Outpatient Service: Before receiving K23 funding, I attended the Pulmonary Embolism and Chronic Thromboembolic Pulmonary Hypertension Clinic $\frac{1}{2}$ day/week. This multidisciplinary sub-specialty clinic cares for patients with acute and chronic submassive and massive PE. I managed anticoagulation, initiated pulmonary

vasodilator therapy, and selected patients for pulmonary artery endarterectomy with cardiothoracic surgery. Additionally, I was part of the original medical team that built the UCHHealth Pulmonary Artery Endarterectomy program, spending a week at the University of California, San Diego, to learn how their clinical program worked.

Clinical Leadership and Administrative Activities: I have served as Medical Director of Respiratory Therapy at UCH Anschutz since 2017. I oversee protocol and order set development, quality improvement/process improvement projects, comprehensive clinical case reviews (CCRs), RT education, and multidisciplinary team integration. This role expanded during the COVID-19 pandemic, when I led the development of effective triage protocols for mechanical ventilation across the system as a member of the UCHHealth Crisis Triage Operations team. Since the pandemic, we have continued system-wide integration to standardize patient respiratory care across the 12-hospital system. This work led to the system-wide development and adoption of the virtual respiratory therapist, mechanical ventilation order sets, and sedation pathways, reducing ventilator length of stay by over one day. Furthermore, I have focused on RT retention, training, and staffing. To improve training for new graduate RTs, I serve on the RT Residency Advisory Committee.

V. RESEARCH AND SCHOLARSHIP

As a fellow, I gained expertise in the Acute Respiratory Distress Syndrome (ARDS) and the association of ventilator dyssynchrony (VD) with ventilator-induced lung injury (VILI) under the tutelage of Dr. Albers. During my fellowship and through my NHLBI K23, I developed a collaboration with Dr. David Albers, a physicist with expertise in dynamical bioinformatics and nonlinear time-series analysis, and Dr. Bradford Smith, a bioengineer with expertise in lung injury and repair. This team represents a core multidisciplinary, bench-to-bedside collaboration that has made novel advances in the study of ventilator dyssynchrony.

As part of this collaboration, I have refined techniques for collecting and analyzing continuous data from mechanical ventilators, as well as data from the electronic medical record. I first presented these data at the 2015 American Thoracic Society (ATS) conference and updated them in 2022, both in a mini-symposium setting (10% of abstracts are selected for presentation in such a forum), and they have resulted in first-author publications. These data have laid the ground for ongoing studies in ventilator dyssynchrony. My research was previously supported by a Colorado Clinical and Translational Science Institute Pilot Grant and an ATS Foundation Grant. My work during my fellowship and as an assistant professor led to the successful funding of my K23 on the first submission in 2019. I am currently funded as the contact PI via an NHLBI R01 to understand the interplay between ventilator dyssynchrony, ventilator-induced lung injury, and sedation. Additionally, I am funded through the DOD/MTEC in conjunction with Hamilton Medical to optimize closed-loop mechanical ventilation algorithms in austere combat environments.

My work has been recognized as the best Junior Faculty Abstract within the University of Colorado's Department of Internal Medicine. I was invited to speak at the international Asia Pacific Society of Respiriology Conference and asked to present my research findings at the Society of Critical Care Respiratory Care Journal Club. I have published six first-author papers on my primary research. I have 35 publications, 13 as first author and 2 as senior author. I am recognized as an expert in mechanical ventilation and was recently asked to consult for the National Board of Respiratory Care.

VI. PUBLICATION AND SCHOLARSHIP

Number of articles in peer-reviewed journals (TOTAL): 36

First-author: 14 Senior-author: 2 Other co-author: 20

Number of Books/Chapters: 1

Number of Other Publications: 3

Number of Published or Presented Scientific Abstracts: 35

Referenced Abstracts: 35 Un-referenced Abstracts: 0

Letters to the Editors: 1

Patient education materials, curricula, clinical guidelines, case studies, or other unpublished scholarly works: 2

VII. PUBLIC AND UNIVERSITY SERVICE

University of Colorado Medical Director of Respiratory Care (2017 - present)
Respiratory Therapy Comprehensive Case Review Co-Chair (2022 - present)
Respiratory IMPACT Committee Co-Chair (2022 - present)
Virtual Respiratory Therapy Co-Chair (2022 - present)
Ventilator Credentialing Committee Co-Chair (2022 - present)
Respiratory Critical Care Subcommittee Co-Chair (2025 - present)
UC Anschutz Critical Care Committee Member (2022 - present)
UC Health Critical Care CCOG Member (2022 - present)
UCHealth System Respiratory Therapy Directors Committee Member (2023 - present)
Mechanical Ventilation Order Set Committee Member (2024)
Tracheostomy Management Committee Member (2023 - 2025)
Laryngectomy Management Committee Member (2023 - 2025)
Inhaled Epoprostenol Protocol Committee Member (2023 - present)
Neuromuscular Blockade Protocol Committee Member (2023)
Difficult Airway Management Committee Member (2023 - present)
Reducing Excessive Pulmonary Hospital Day and Readmissions Committee Member (2023 - present)
PSI-11 Post-Op Respiratory Failure Reduction Committee Member (2024 - present)
iNO Therapy Utilization Practice Improvement Committee (2025 - present)
Management of Pain and Sedation of Mechanically Ventilated Patients Protocol Committee Member (2021 - 2022)
University of Colorado Crisis Triage Committee Member (2020 - 2022)
Pulmonary Embolism Response Team and Research Group (2015 - 2019)
University of Colorado Combined Institutional Review Board Member (2014 - 2022)

VIII. PROFESSIONAL SOCIETY MEMBERSHIPS

Consultant for the National Board of Respiratory Care (2024 - 2026)
ATS representative to the Board of the National Board of Respiratory Care (2026 - present)
Member of the American Thoracic Society (2013 - present)

IX. HONORS

Jason Goodman Provider of the Year, Colorado Respiratory Care Society (2023)
Invited ATS Junior Investigator – Asia Pacific Society of Respiriology, Sydney, Australia (2017)
ATS Travel Award Recipient (2015)
Best Junior Faculty Abstract – Department of Medicine (2015)
ATS Travel Award Recipient (2014)
American Federation of Medical Research Western Regional Meeting Travel Award (2011)
Alpha Omega Alpha (2009)
Academic Recognition Award - award designated to the top five graduates (2009)
Eli G Rochelson Memorial Award in Pulmonary and Critical Care Medicine (2009)
Certificate of Research Excellence at the 52nd Student Biomedical Research Forum (2009)
Society of Sigma Xi (2005)
Phi Beta Kappa (2005)

X. MAJOR GRANTS

Since 2016	As Principle Investigator		As CO-Investigator	
Active	Number of Grants	Total Direct Costs	Number of Grants	Total Direct Costs
Federal	2	\$4,467,747	3	\$5,797,615
Foundation				
Industry				
Other				
Inactive	Number of Grants	Total Direct Costs	Number of Grants	Total Direct Costs
Federal	3	\$1,130,000	1	\$2,513,115
Foundation	1	\$40,000		
Industry				
Other				

Additionally, I obtained an NIH Loan Repayment Grant with two renewals.