



MICHELLE P. ZHANG, M.D.

Pulmonary & Critical Care Medicine · Internal Medicine
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SUMMARY

Dr. Michelle Zhang is a board-certified pulmonary and critical care physician actively practicing in a closed ICU, where she manages a broad spectrum of critically ill patients with medical, surgical, cardiovascular, and neurologic pathologies. She completed her internal medicine training at Boston Medical Center and completed a fellowship in pulmonary & critical care at the University of California, San Diego.

Her undergraduate training in philosophy at Tufts University has uniquely prepared her for rigorous analytical reasoning and structured arguments — skills directly applicable to the demands of expert witness work. Dr. Zhang is available for case review, written opinion, deposition testimony, and trial testimony.

BOARD CERTIFICATIONS & LICENSURE

Critical Care Medicine — Board Certified	2022–Present
Pulmonary Medicine — Board Certified	2021–Present
Internal Medicine — Board Certified	2019–Present
California Medical License — Active	2019–Present

AREAS OF EXPERT WITNESS CONSULTATION

Critical Care

- Mechanical ventilation and advanced ventilator management
- Acute respiratory failure and ARDS
- Extracorporeal membrane oxygenation (ECMO) — VV and VA; candidacy and timing of cannulation
- Airway management and timing of intubation
- Sepsis and septic shock management
- Hemorrhagic shock and resuscitation, including transfusion strategies and escalation to procedural or surgical intervention
- ICU triage and level-of-care decisions
- Failure to rescue and delayed escalation of care
- Hospital-acquired infections: ventilator-associated pneumonia, line infections

Pulmonary Medicine

- Asthma, COPD, interstitial lung disease, occupational lung diseases, bronchiectasis, lung cancer
- Pulmonary embolism — diagnosis, risk stratification, and escalation to advanced therapies (catheter-directed or suction embolectomy)
- Pleural disease and thoracic procedures
- Bronchoscopy and pulmonary procedures
- Candidacy for and timing of referral to lung transplantation
- Independent review and interpretation of thoracic imaging, with experience identifying missed nodules or malignancies

CURRENT POSITIONS

1. Critical Care Physician

Acute Care Associates — Encinitas, California

July 2022–Present

- Provide primary management in a closed ICU, serving as the primary intensivist for all critically ill patients including medical, surgical, cardiovascular, and neurologic cases
- Manage high-acuity patients requiring mechanical ventilation, vasopressors, and multi-organ support
- Coordinate care with consulting specialists across multiple disciplines
- Serve as primary decision-maker in evaluating candidacy and timing for ECMO (VV and VA)
- Perform ICU procedures:
 - Endotracheal intubation
 - Central and arterial line placement
 - Dialysis catheter placement
 - Bronchoscopy
 - Thoracentesis and chest tube placement

2. Pulmonologist

July 2022–Present

Coastal Pulmonary Associates — Encinitas, California

- Provide inpatient pulmonary consultation and manage a busy outpatient general pulmonary practice
- Manage COPD, asthma, interstitial lung disease, pulmonary infections, pulmonary hypertension, and lung nodules
- Perform bronchoscopy and pleural interventions, including thoracentesis and chest tubes
- Independently review and interpret thoracic imaging

MEDICAL EDUCATION & TRAINING

Pulmonary & Critical Care Medicine Fellowship · UC San Diego Health, San Diego, CA	2019–2021
Internal Medicine Residency · Boston Medical Center, Boston, MA	2016–2019
M.D. · Boston University School of Medicine · Boston, MA	2012–2016
<i>Cum laude honors</i>	
B.A., Philosophy · Tufts University · Medford, MA	2008–2012
<i>Summa cum laude honors</i>	

RESEARCH EXPERIENCE

- Section of Physiology — UC San Diego 2021–2022
Mentor: Omar Mesarwi, MD · San Diego, CA
 - Investigated the effect of intermittent feeding on glycemic dysregulation in a mouse model of obstructive sleep apnea
- Pulmonary Vascular Department — UC San Diego 2021
Mentor: Timothy Fernandes, MD, MPH · San Diego, CA
 - Performed a retrospective analysis to determine the incidence and risk factors for pericardial effusion following pulmonary thromboendarterectomy
- Hemant Roy Translational Lab — Boston Medical Center 2016–2018
Mentor: Hemant Roy, MD · Boston, MA
 - Investigated the effect of myokines on NAFLD and hepatocellular carcinoma
 - Investigated the role of stromal-antigen 1 (SA1) in non-small-cell lung cancer
 - Investigated the effect of myokines on lung adenocarcinoma cells in vitro
- Department of Neuro Critical Care — Boston Medical Center 2017–2018
Mentor: Melissa Mercado, MD · Boston, MA
 - Clinical implementation of a therapeutic hypothermia protocol following in-hospital cardiac arrests; submitted IRB, designed retrospective review, collaborated across departments, and presented at M&M conference
- Surgical Research Lab — Boston University School of Medicine 2013
Mentor: Arthur Stucchi, PhD · Boston, MA

- Investigated the role of PAR-1 and PAR-2 in the formation of intraabdominal adhesions

TEACHING

1. Morbidity and Mortality Conference: Carotid Blowout Syndrome	2022
2. Pulmonary Case Conference: A Case of Shunt Post-Liver Transplant	2022
3. Critical Care Case Conference: Ring-Enhancing Brain Lesions	2021
4. Internal Medicine Friday School: Shock Session	2021
5. Simulation Center: Central Line Teaching	2021
6. Chalk Talk: Basic Ventilator Strategies	2020
7. Chalk Talk: Pulmonary Hypertension	2020
8. Critical Care Case Conference: Septic Cardiomyopathy	2020
9. Internal Medicine Boot Camp: Hemodynamics and Vasopressors	2020
10. Pulmonary Case Conference: Pulmonary Eosinophilias	2020
11. Chalk Talk: Hypoxemia and Supplemental Oxygen Modalities	2019
12. Chalk Talk: Sepsis	2019
13. Bite-Sized Teaching: B-natriuretic Peptide in Obesity	2017
14. Disease and Therapy Course Tutor	2015–2016
15. Preparing Future Physician Educators Instructor	2015–2016

PUBLICATIONS

1. Afif C, Brewster K, **Zhang M**, Reeves J, Hackbarth M, Cong C, Olvera K, Moya EA, Malhotra A, Mesarwi O. Time Restricted Eating Improves Intermittent Hypoxia Induced Dysglycemia. *Sleep*. March 2026.
2. Mears M, Bandaru P, Neczypor E, Byun M, **Zhang M**, Gorr M, Masso Silva J, Barnes L, Perryman A, Kumar A, Hendel J, Fuentes AL, Wold L, Crotty Alexander L. Multisystem Toxicity of E-cigarettes in Preclinical and Clinical Studies. *Annu. Rev. Pharmacol. Toxicol.* Aug 2025.
3. Barnes L, Xu Y, Sanchez Azofra A, Moya EA, **Zhang M**, Crotty Alexander L, Malhotra A, Mesarwi O. Duration of intermittent hypoxia impacts metabolic outcomes and severity of murine NAFLD. *Front. Sleep* Aug 2023.
4. Kathuria H, Herbst N, Seth B, Clark K, Helm ED, **Zhang M**, O'Donnell C, Fitzgerald C, Itchapurapu IS, Waite M, Wong C. Rapid cycle evaluation and adaptation of an inpatient tobacco treatment service at a US safety-net hospital. *Implement. Res. Pract.* Sept 2021.

ORAL PRESENTATIONS

1. **Zhang M**, Reeves J, Lawrence E, Sanchez Azofra A, Barnes L, Moya EA, Mesarwi O. Time-Restricted Feeding Improves Glucose Metabolism in a Mouse Model of Obstructive Sleep Apnea. American Thoracic Society International Conference, San Francisco, May 2022.
2. **Zhang M**, Wijesekera O, Nashi R, Mercado M. Improving Therapeutic Hypothermia Implementation at Boston Medical Center. Boston Medical Center, May 2018.

POSTER PRESENTATIONS

1. **Zhang M**, Bautista A, Papamatheakis D, Poch D, Kerr K, Kim N, Pretorius V, Madani M, Fernandes T. Pericardial Effusion after Pulmonary Thromboendarterectomy. ATS International Conference, San Diego, May 2021.
2. **Zhang M**, Dela Cruz M, Datta S, Chowdhury S, Roy HK. Myokines as Anti-Proliferative Agents in Lung Adenocarcinoma. ATS International Conference, San Diego, May 2018.
3. **Zhang M**, Petersile M, Ruopp N, Farber HW. Pulmonary Arterial Hypertension and a Large Pericardial Effusion. ATS International Conference, San Diego, May 2018.
4. **Zhang M**, Bosch N, Klings ES. Management of a Thrombus-in-Transit in a Young Man with Sickle Cell Disease. ATS International Conference, San Diego, May 2018.
5. **Zhang M**, Dela Cruz M, Momi N, Chowdhury S, Roy HK, Lerner A. Stromal antigen 1 (SA1) as a potential pro-neoplastic factor in NSCLC. AACR Annual Meeting, Washington D.C. April 2017.
6. **Zhang M**, Ohm JT, Chhaparia A, Dela Cruz M, Haroon M, Tiwari A, Roy HK. In vitro model of exercise synergizes with sorafenib through enhanced AMPK signaling. AASLD — The Liver Meeting, Boston MA. November 2016.
7. **Zhang M**, Tran A, Jeong M. Bradycardia as a complication of peritonsillar abscess. American College of Physicians Annual Scientific Meeting, Waltham, MA. October 2016.

8. **Zhang M**, Tiwari A, Ohm JT, Roy HK. Myokine augmentation of sorafenib therapy in hepatocellular carcinoma: an in vitro model of exercise as adjuvant chemotherapy. BU School of Medicine Graduate Student Symposium, Boston, MA. April 2016.
9. **Zhang M**, Gillespie E, Stucchi AF. Hypoxia-Responsive Protease Activated Receptor 2 Upregulates Expression of Genes Promoting Intraabdominal Adhesion Formation. Medical Student Summer Research Symposium, Boston, MA. April 2014.

ABSTRACTS

1. Kellogg C, Rosenbaum A, Namavar A, **Zhang M**, Nobari M, Cheng G. A Curious Case of Cocci: Fungal Infection Masquerading as Lymphoma. ATS International Conference, San Diego, May 2021.
2. Ohm JT, Miller S, **Zhang M**, Majety P, Chowdhury S, Momi N, Tiwari A, Roy HK. Myokines as a Mediator of Anti-NAFLD Benefit of Exercise. Gastroenterology, Vol. 152, Issue 5, S685. April 2017.
3. Miller S, Tiwari A, Ohm JT, **Zhang M**, et al. Exercise and Nonalcoholic Fatty Liver Disease: Role of Skeletal Muscle Secreted IL10 and IL5. Gastroenterology, Vol. 152, Issue 5, S823. April 2017.
4. Tiwari A, Chhparia A, Ohm JT, **Zhang M**, Momi N, Dela Cruz M, Roy HK. In vitro exercise: A novel platform for drug discovery for NAFLD and HCC. Am. J. Gastroenterology 111, S718–S720.
5. Brady MT, Gillespie E, **Zhang M**, Heydrick S, King EG, Keenan B, Gruver C, Stucchi AF. Protease-Activated Receptors 1 and 2 Are Upregulated in Ischemic Peritoneal Adhesion Tissue. J. Surgical Research, Vol. 186, Issue 2, p679. February 2014.

HONORS, PRIZES & AWARDS

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| 1. Assembly on Thoracic Oncology Abstract Scholarship | 2018 |
| 2. Teamwork and Collaboration with Nursing Award | 2017 |
| 3. Cum Laude Honors, Boston University School of Medicine | 2016 |
| 4. Gold Humanism Honor Society | 2015 |
| 5. Serchuck Award for Best Basic Science Poster | 2013 |
| 6. Medical Student Summer Research Program Scholarship | 2013 |
| 7. Helen Morris Cartwright Memorial Prize in Philosophy | 2012 |
| 8. Summa Cum Laude Honors, Tufts University | 2012 |

COMMITTEES & PROFESSIONAL SOCIETIES

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| 1. American College of Chest Physicians, Member | 2019–2021 |
| 2. American Thoracic Society, Member | 2018–2021 |
| 3. Class Representative, Internal Medicine Residency | 2016–2017 |
| 4. Clinical Neuroscience Society, Leadership Board | 2013–2014 |
| 5. Academy of Advisors Representative | 2013–2014 |

VOLUNTEER & COMMUNITY SERVICE

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| 1. Homeless Health Experience Volunteer | 2012–2014 |
| 2. Outreach Van Project Volunteer | 2012–2013 |
| 3. Boston Children's Hospital Volunteer | 2011–2012 |
| 4. Sharewood Free Clinic Volunteer | 2010–2012 |
| 5. Jumpstart Program Mentor | 2008–2009 |