# Fai Ali I Albuainain

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## Credentials and Licensures

- Registered Respiratory Therapist (RRT), USA
- Licensed Respiratory Therapist – Saudi Commission for Health Specialties (SCFHS)

## Education

**PhD in Clinical Translational Science** Current

Case Western Reserve University, Cleveland, OH

**MS in Respiratory Care** Aug 2023

Rush University, Chicago IL

GPA: 4.00/4.00

**BS in Respiratory Care** May 2016

Imam Abdulrahman Bin Faisal University, Saudi Arabia

GPA: 3.73/4.00

## Faculty Appointment

**Imam Abdulrahman bin Faisal University, Saudi Arabia**
*Lecturer in the Respiratory Care Department.* 2018- current

- Taught multiple courses, including Respiratory Care Therapeutics, Neonatal and Pediatric Respiratory Care, Medical Gases Therapy, and Pulmonary Rehabilitation.
- Worked as an academic mentor to an average of 15 students per year.
- Head of the clinical training unit
- Member of the respiratory care curriculum development committee
- Member of the exam quality and electronic correction committee

## Work Experience

**King Fahad Hospital, Saudi Arabia** 2017-2018
*Respiratory Therapist*

Worked as a respiratory therapist in general care, emergency room, and critical care areas.

- Poster presenting “A comparison between two types of resistive inspiratory muscle training devices in normal subjects in regards to pulmonary functions” at the Gulf Thoracic Conference in the UAE, 2017.

## Professional Training

**Rush Oak Park Hospital, Chicago, IL** 2023
*Trainee*

Trained for 6 weeks in the Pulmonary Rehabilitation Center and dealt with patients with COPD, CF, ILD, and lung transplants.

**King Faisal Specialist Hospital, Saudi Arabia** 2016-2017
*Intern*

Worked under the supervision of a licensed respiratory therapist in general care, emergency room, and critical care areas.

**Saud Babtain Cardiac Center, Saudi Arabia** 2015
*Trainee*

## Awards and Honors

- **2025,** Young Investigator Award – American Association of Respiratory Care.
- **2023,** Research Excellence Award – Rush University
- **2023,** Recipient of the graduate assistance in research scholarship – Rush University
- **2023,** Acknowledged on the Dean's List for academic excellence. – Rush University
- **2023,** Nominated for the Lambda Beta Society by the Respiratory Care Department in recognition of academic excellence and an impeccable ethical record
- **2022,** Recipient of academic excellence award from the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE)
- **2022,** Recipient of research proposal award from the Coalition for Baccalaureate and Graduate Respiratory Therapy Education (CoBGRTE)
- **2016,** Awarded first place in the respiratory care intellectual competition at the 2nd PSMCH Respiratory Care Students Symposium
- **2015,** Awarded first place in the general intellectual student competition at Imam Abdulrahman bin Faisal University

## Professional Presentation

The Effect of Flow Settings During HFNC Support for Adults – Saudi Critical Care Society.

## Society and committee membership

- Member, CHEST

- Member, American Thoracic Society (ATS)
- Member, American Association of Respiratory Care (AARC)
- Member, Saudi Society of Respiratory Care
- Member, International Society of Aerosol Medicine

## Peer reviewer

- BMC Pulmonary Medicine
- Respiratory Care Journal
- PeerJ Journal

## Research interests

- Aerosol medicine
- Mechanical ventilation
- High-flow nasal cannula and non-invasive ventilation

## Publications

- **Albuainain FA**, Man X, Li J.Aerosol Delivery to Simulated Spontaneously Breathing Tracheostomized Children's Models with High-Flow Tracheal Oxygen. Respir Care. Published online August 25, 2025. doi:10.1177/19433654251360623
- **Albuainain FA,** Man X, Alamoudi O, Li J. Factors influencing aerosol delivery during invasive ventilation. *Respir Care*. Published online July 2, 2025. DOI: 10.1089/respcare.12942
- **Albuainain FA,** Almomen A, Gong L, Li J. Quantification of health care worker model to secondhand exposure of aerosols during nebulization treatment. *Respir Care*. DOI: 10.1089/respcare.12668
- Chen X, **Albuainain FA,** Li J. Aerosol delivery to simulated spontaneously breathing tracheostomized adult patients with heated humidified high flow oxygenation. Respir Care. 2025;70(7):873–878. DOI: 10.1089/respcare.12467
- Li J, Lyu S, Luo J, Liu P, **Albuainain FA**, Alamoudi OA, Rochette V, et al. Prophylactic antibiotics delivered via the respiratory tract to reduce ventilator-associated pneumonia: a systematic review, network meta-analysis, and trial sequential analysis. Crit Care Med. 2024;52(10):1612-1623. DOI: 10.1097/CCM.0000000000006323
- Liu P, Lyu S, Mireles-Cabodevila E, Miller AG, **Albuainain FA**, et al. Survey of ventilator waveform interpretation among ICU professionals. Respir Care. 2024;69(7):773-781. DOI: 10.4187/respcare.11677
- Li J, Abulkhair RR, **Albuainain FA**. A pediatric bench model of continuous albuterol delivery using heliox. Respir Care. 2024;69(12):1517-1522. DOI: 10.4187/respcare.11713
- **Albuainain FA**, Li J. Aerosol delivery to simulated spontaneously breathing tracheostomized adult model with and without humidification. Respir Care. 2024;69(7):847-853. DOI: 10.4187/respcare.11495
- Li J, Deng N, He WJ, Yang C, Liu P, **Albuainain FA,** et al. The effects of flow settings during high-flow nasal cannula oxygen therapy for neonates and young children. Eur Respir Rev. 2024;33(230223):14. DOI: 10.1183/16000617.0223-2023
- Li J, **Albuainain FA**, Tan W, Scott JB, Roca O, Mauri T. The effects of flow settings during high-flow nasal cannula support for adult subjects: a systematic review. Crit Care. 2023;27(1):78. DOI: 10.1186/s13054-023-04361-5

- Alwohayeb NS, Alenazi BA, **Albuainain FA**, Alrayes MM. A comparison between two types of resistive inspiratory muscle training devices in normal subjects in regards to pulmonary functions. Int J Phys Med Rehabil. 2018;6(1):100044. DOI: 10.4172/2329-9096.1000449

## Conference Published Abstract Presentations:

- Almomen A, **Albuainain FA**, Gong L, Li J. Healthcare worker inhalation exposure of fugitive aerosols during nebulization treatment: in vitro quantification. Respir Care. 2024;69(Suppl 10).
- **Albuainain FA**, Man X, Alamoudi O, Li J. Impact of ventilator settings, nebulizer placement, bias flow, humidification, and circuit adaptor on aerosol delivery during invasive ventilation. Respir Care. 2024;69(Suppl 10):4114853.
- Li J, Deng N, He W, Yang C, Liu P, **Albuainain FA**, Ring B, Miller A, Rotta A, et al. 674: Effects of flows during high-flow nasal cannula for neonates and pediatrics: a systematic review. Crit Care Med. 2024;52(1):S310.
- **Albuainain FA**, Man X, Li J. Aerosol delivery to simulated spontaneously breathing tracheostomized pediatrics with heated and unheated humidification. Respir Care. 2023;68(Suppl 10):3949737.
- **Albuainain FA**, Chen X, Li J. Aerosol delivery to simulated spontaneously breathing tracheostomized patients with heated humidification. *Respir Care*. 2023;68(Suppl 10).
- Abulkhair R, **Albuainain FA**, Li J. Continuous albuterol delivery using heliox for pediatric patients. Respir Care. 2023;68(Suppl 10):3950395.
- **Albuainain FA**, Li J. Aerosol delivery to simulated spontaneously breathing tracheostomized patients with and without unheated humidification. Respir Care. 2023;68(Suppl 10):3938237.
- Liu P, Lyu S, Mireles-Cabodevila E, Miller AG, **Albuainain FA**, et al. Survey of ventilator waveform interpretation among ICU clinicians. Respir Care. 2023;68(Suppl 10):3947243.
- Gore CH, **Albuainain FA**, Li J. A physiological study to assess the effects of awake prone positioning in healthy volunteers under different respiratory support: a randomized crossover study. Respir Care. 2023;68(Suppl 10):3950862.

## References:

Available upon request