CURRICULUM VITAE

Mansoor Ahmed, MD

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Current position:

Medical Director Cleveland Sleep Research Center, Middleburg Heights, OH Medical Director Cleveland Sleep Center, Middleburg Heights, OH Assistant Professor of Medicine and International Health, Case Western Reserve University, Cleveland, OH

Medical Education:

1973 – 1979: M.B, B.S King Edward Medical College, Lahore, Pakistan.

Post-Graduate Training and Fellowship Appointments:

1979 – 1980:	Internship: Mayo Hospital, King Edward Medical College Lahore, Pakistan.
1980 – 1981:	Teaching appointment at Medical College, Faisalabad, Pakistan
1982 – 1983:	Visiting Externship: Department of Cardiology, Montreal General Hospital, Montreal,
	Canada
1983 – 1985:	Fellowship, Internal Medicine, Montreal General Hospital and Internal Medicine
	Montreal General Chest Hospital, McGill University, Montreal, Quebec Canada
1986 – 1987:	Senior Resident, Internal Medicine, Toronto General Hospital University of Toronto, Toronto,
	Ontario, Canada
1989 – 1990:	Clinical Pulmonary Fellowship and Sleep Research: Respiratory Department, Health
	Sciences Center, University of Manitoba, Winnipeg, Manitoba, Canada
1990 – 1991:	Critical Care Fellowship, Department of Medicine, Health Sciences Center and St
	Boniface Hospital, University of Manitoba, Winnipeg, Manitoba, Canada
1991-1992:	Pulmonary Research Fellowship: Respiratory Department, Health Sciences Center, University
	of Manitoba, Winnipeg, Manitoba, Canada

Specialties/Board Certifications

2010	Diplomat American Board of Sleep Medicine
1998	American Academy of Sleep Medicine
1989	American Board of Critical Care Medicine
1988	American Board of Pulmonary Medicine
1987	American Board of Internal Medicine

Academic and Professional Appointments

2007 - Present	Medical Director/ Investigator– Cleveland Sleep Research Center, Middleburg Heights, OH
1998 - Present	Medical Director - Cleveland Sleep Center, Middleburg Heights, OH
2001-2005	Chairperson - International Affairs Committee, American Academy of
	Sleep Medicine
1993 – 1998	Faculty Staff Member, Metro Health Medic Center,
	Case Western Reserve University, Cleveland, Ohio.
1998	Advisory Board "Sleep and Hypnosis" – An International Journal of Sleep,
	Dream and Hypnosis.
1993	Assistant Professor of Medicine and International Health,
	Case Western Reserve University, Cleveland, OH
1980 – 1981	Teaching Staff Member of Punjab Medical College, Department of
	Anatomy and Histology, Lahore, Pakistan.

International Visiting Faculty/Invited Speaker

Turkey: Fateh University, Turgat Ozal University, Mevlana University

Kuwait: Kuwait Chest Institute and Sleep Center

Pakistan: Armed Medical College, Sheikh Zaid Hospital

Funded Research Grants and Awards

Effects of Hypoxia on Ventilatory Stability in Humans

Dean's Tax Grant, #3632; Principal Investigator: Mansoor Ahmed

Total Award: \$126,000

Breathing Instability in Patients with Congestive Heart Failure

American Heart Association, #9488-830; Principal Investigator: Mansoor Ahmed

Total Award: \$148,545

The Effects of Milnacipran on Sleep Disturbance in Fibromyalgia Forest Laboratories; Principal Investigator: Mansoor Ahmed

Total grant: \$250,000.00

Evaluation of the Effects of Gabapentin Enacarbil on Intensity of Cortical Arousal, Heart Rate, Blood Pressure, and Anterior Tibialis EMG Responses Associated with Periodic Limb Movements during Sleep in Patients with Restless Legs Syndrome Using a Novel Computer Assisted Scoring System

Xenoport Inc.; Principal investigator: Mansoor Ahmed

Total grant: \$249,998.00

Publications and Abstracts

- Ahmed M, Jishi Z, Scharf MB. Real Time Assessment Of Blood Pressure Changes During Periodic Limb Movements In Sleep Of Patients With Restless Legs Syndrome. Abstract (submitted).
- Ahmed, M., Hays, R., Steven Poceta, J., Jaros, M. J., Kim, R., & Shang, G. Effect of Gabapentin Enacarbil on Individual Items of the International Restless Legs Study Group Rating Scale and Post-Sleep Questionnaire in Adults with Moderate-to-Severe Primary Restless Legs Syndrome: Pooled Analysis of 3 Randomized Trials. Clinical Therapeutics Volume 38, Issue 7, 1 July 2016, Pages 1726-1737.
- 3. Lee DO, Buchfuhrer MJ, Garcia-Borreguero D, Avidan AY, Ahmed M, Hays R, Ondo WG, Jaros MJ, Kim R, Shang G. Efficacy of gabapentin enacarbil in adult patients with severe primary restless legs syndrome. Sleep Med. 2016 Mar; 19:50-6.
- 4. Ahmed M, Aamir R, Jishi Z, Scharf MB. The Effects of Milnacipran on Sleep Disturbance in Fibromyalgia: A Randomized, Double-Blind, Placebo-Controlled, 2-Way Crossover Polysomnography Study. J Clin Sleep Med 2016; 12(1):79-86
- 5. Ahmed M, Scharf MB, Aamir R, Jishi Z. Odds Ratio Product Quantification of PLMs and Sleep Disturbance in Patients with Restless Legs Syndrome. *SLEEP*. 37:A102, 2014. Supplement.
- Ahmed M, Scharf MB, Jishi Z, Younes M, Aamir R. Evaluation of Micro Sleep Architecture in Patients with Fibromyalgia Utilizing a Novel Computer Assisted Scoring System. SLEEP. 37:A97, 2014. Supplement.
- 7. Scharf MB; Jishi Z; Ahmed M; Younes M, Aamir R. Taking the Pain Out of Scoring Alpha Intrusion: Elevated Alpha Intrusion and Non-Rem ORP in Fibromyalgia. (submitted)
- 8. Jishi Z, Ahmed M, Younes K, Ararat K, Cyrill N. Use of the Odds Ratio Product To Investigate Subjective Excessive Sleepiness. *SLEEP*. 38:A269, 2015. Supplement.
- 9. Aamir R, Ahmed M, Jishi Z, Scharf MB. Effects of Milnacipran On Sleep And Pain In Subjects With Fibromyalgia. *SLEEP*. 38:A310, 2015. Supplement.
- 10. Ahmed M, Jishi Z, Scharf MB, Younes MK. Evaluation Of The Odds Ratio Product During The Psychomotor Vigilance Test. *SLEEP*. 38:A344, 2015. Supplement.
- 11. Jishi Z, Ahmed M, Scharf MB, Azarbarzin A, Aamir R. Sleep and Intensity Of Cortical Arousals Associated with Periodic Limb Movements: A New Approach For Predicting Subjective Complaints. *SLEEP*. 38:A263, 2015. Supplement
- 12. Ahmed M, Jishi Z, Scharf MB, Younes M, Cyrill N. The Danger Zone: Micro Sleep Episodes Prior to Sleep Onset in Maintenance of Wakefulness Tests. *SLEEP*. 38:A344, 2015. Abstract Supplement
- 13. Ahmed M, Hays R, Poceta JS, Jaros M, Kim R, Shang G. The Effect of Gabapentin Enacarbil on Individual Items of the International Restless Legs Scale and Post-Sleep Questionnaire in Adult Patients With Moderate-to-Severe Primary Restless Legs Syndrome: Pooled Analyses. Abstract / poster presentation at APSS 2014.
- 14. Buchfuhrer MJ, Ahmed M, Hays R, García-Borreguero D, Jaros M, Kim MR, Shang G. The Effect of Gabapentin Enacarbil on Individual Items of the International Restless Legs Scale and Post-Sleep Questionnaire in Patients With Severe Primary Restless Legs Syndrome: Pooled Analyses From 3 Randomized Trials. Abstract / poster presentation at APSS 2014.
- 15. Fawad T, Zarmeneh A, Osman A, Bhojo K and Ahmed M. Risk for sleep apnea syndrome in Pakistan: a cross-sectional survey utilizing the Berlin questionnaire. Sleep and Breathing, Volume 13, Number 1 / February, 2009.
- 16. Iftikhar I, Ahmed M, Tarr S, Zyzanski SJ, Blankfield RP. Comparison of obstructive sleep apnea patients with and without leg edema. Sleep Med 2008; 9: 890-893.
- 17. Ahmed M, Blankfield RP. Sleep disordered breathing in heart failure. Indian J Sleep Med 2007; 2: 50-58.
- 18. Blankfield RP, Ahmed M, Zyzanski SJ. Effect of nasal continuous positive airway pressure on edema in patients with obstructive sleep apnea. Sleep Med. 2004; 5 (6): 589-592

- 19. Ahmed M, Blankfield RP, Saeed-Butt S, Manshadi J, Woyshville MJ: Sleep Quality, Daytime Fatique and Sleepiness in Patients with Heart Failure: *Sleep* (27): A328, 2004.
- 20. Blankfield RP, Ahmed M, Zyzanski SJ. Idiopathic edema is associated with obstructive sleep apnea in women. Sleep Med (Vol. 5, Issue 6, Pages 583-7) Nov 2004.
- 21. Weiner S, Kayyali H, Fredrick C, Ahmed M: Innovative Wireless Sleep Apnea Monitoring System: *Sleep* (27):A365, 2004.
- 22. Modarreszadeh, M. Xu X, Ahmed M: Novel Computerized EEG Algorithms for High Resolution Characterization of Wake-Sleep Transitions. *Sleep (27):*2004.
- 23. Blankfield RP, Ahmed M, Saeed-Butt S, Manshadi J: Pulmonary Hypertension, Heart Failure and Sleep Apnea. *Sleep (27)*: A194, 2004.
- 24. Chapter in Sleep Textbook: Positive Airway Pressure for Obstructive Sleep Apnea: Third edition: Snoring and Obstructive Sleep Apnea: By D N F Fairbanks, S A Michelson and B T Woodson: Lippincott, Willaims and Wilkins 2003.
- 25. Blankfield RP, Ahmed M, Zyzanski SJ: Edema, Obesity and Obstructive Sleep Apnea. A Cross Sectional Study. *Sleep* (26): A150, 2003.
- 26. Ahmed M, Domenick D, Messenger R: Patient Perceptions of a New Nasal Mask. Sleep (26): A150, 2003.
- 27. Modarrezadeh M, Ahmed M, Adbelhamid M: Development of Hypopnea/Obstructive Apnea at Very Onset of Sleep in Patients with Severe Obstructive Sleep Apnea. *Sleep* (26): A150, 2003.
- 28. Blankfield, Robert MD, Ahmed, Mansoor MD: Edema, Obesity and Obstructive Sleep Apnea A Cross Sectional Study. J Fam Pract Jun;51(6):561-4, 2002.
- 29. Ahmed M, Serrette C, Kryger M, Anthonisen NR. Ventilatory instability in-patients with congestive heart failure and nocturnal Cheyne-Stokes breathing. Sleep; 17:527-534, 1994.
- 30. Steens RD, Millar TW, Xiaoling Su, Biberdorf D, Buckle P, **Ahmed M**, Kryger MH. Effects of inhaled 3% C02 on Cheyne-Stokes respiration in congestive heart failure. Sleep 17(1):61-68, 1994
- 31. Ahmed M, Giesbrecht G, Serrette C, Anthonisen NR. Respiratory short-term potentiation (after discharge) in elderly humans. Respir Physiol 193:165-175, 1992.
- 32. Ahmed M, Giesbrecht G, Serrette C, Anthonisen NR. Ventilatory response to hypoxia in elderly humans. Respir Physiol 83(3):333, 1991.
- 33. Giesbrecht G, Puddy A, Ahmed M, Younes M, Anthonisen NR. Exercise endurance and arterial desaturation in normobaric hypoxia with increased chemosensitivity. J Appi Physiol 70(4):1569-1574, 1991.
- 34. Richmonds C, Ahmed M, Hudgel DW. Hypoglossal and phrenic motoneuron response to intravenous and raphe obscurus injection of L-5-Hydroxytryptophan. Amer Rev Respir Dis.
- 35. Long WQ, Ahmed M, Anthonsen NR. Respiratory after-discharge with C02 in normal humans. Amer Rev Respir Dis 143(4):A197, 1991.
- 36. Ahmed M, Georgopoulus D, Anthonisen NR. Variability of bronchodilator responses in chronic obstructive lung disease. Am Rev Respir Dis 141(4):A320, 1990.

Clinical Research Trials

- E2006-G000-304: A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Active Comparator, Parallel-Group Study of the Efficacy and Safety of Lemborexant in Subjects 55 Years and Older with Insomnia Disorder. EISAI.
- 2 14-005: A long term, open-label safety and maintenance of efficacy study of JZP-110 [®-2-amino-3-phenylproylocarbamate hydrochloride] in the treatment of excessive sleepiness in subjects with narcolepsy or obstructive sleep apnea. Jazz Pharmaceuticals.
- 3 14-002: A twelve-week, double-blind, placebo-controlled, randomized, parallel-group, multicenter study of the safety and efficacy of JZP-110 [®-2-amino-3-phenylproylocarbamate hydrochloride] in the treatment of excessive sleepiness in subjects with narcolepsy. Jazz Pharmaceuticals.
- 4 14-003: A twelve-week, double-blind, placebo-controlled, randomized, parallel-group, multicenter study of the safety and efficacy of JZP-110 [®-2-amino-3-phenylproylocarbamate hydrochloride] in the treatment of excessive sleepiness in subjects with obstructive sleep apnea (OSA). Jazz Pharmaceuticals.

Curriculum Vitae Mansoor Ahmed, MD October, 2017

- 5 XP-IIT-0031: Evaluation of the effects of gabapentin enacarbil on intensity of cortical arousal, heart rate, blood pressure, and Anterior Tibialis EMG responses associated with Periodic Limb Movements during sleep in patients with restless legs syndrome using a novel computer assisted scoring system. XenoPort, Inc.
- 6 DS5565-A-E311: A randomized, double-blind, placebo- and active-controlled study of DS-5565in subjects with pain associated with fibromyalgia. Daichi Sankyo Pharam Development.
- 7 DS5565-A-E312: An open-label extension study of DS-5565 for 52 weeks in pain associated with fibromyalgia. Daichi Sankyo Pharam Development
- 8 CTT116855: A phase III, 52 week, randomized, double-blind, 3-arm parallel group study, comparing the efficacy, safety and tolerability of the fixed dose triple combination FF/UMEC/VI with the fixed dose dual combinations of FF/VI and UMECH/VI, all administered one-daily in the morning via a dry powder inhaler in subjects with chronic obstructive pulmonary disease. GlaxoSmithKline.
- 9 HZA116863: A randomized, double-blind, parallel group, multicenter study of Fluticasone Furoate/Vilanterol 200/25 mcg Inhalation Powder, Fluticasone Furoate/Vilanterol 100/25 mcg Inhalation Powder, and Fluticasone Furoate 100 mcg Inhalation Powder in the treatment of persistent asthma in adults and adolescents. GlaxoSmithKline.
- 10 RXP114025: Controlled, Fixed-Dose, Parallel-Group Study to Compare the Efficacy, Tolerability, and Safety of 3 Doses of Gabapentin Enacarbil (GSK1838262) With Placebo in the Treatment of Subjects With Moderate-to-Severe Primary Restless Legs Syndrome (RLS). GlaxoSmithKline/Xenoport.
- 11 A Safety and Benefit Study of inhaled Fluticasone Propionate/ salmeterol combination versus inhaled Fluticasone propionate in the treatment of adult and adolescent subjects with persistent asthma ("Study"). Glaxo-SmithKline.
- 12 A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Phase 3 Trial to Evaluate the Safety and Efficacy of Dapagliflozin in Subjects with Type 2 Diabetes with Inadequately Controlled Hypertension treated with an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) and Additional Antihypertensive Medication, Bristol Myers Squib, Astra-Zeneca
- 13 A Multicenter, Randomized, Double-Blind, Placebo-Controlled, Parallel Group, Phase 3 Trial to Evaluate the Safety and Efficacy of Dapagliflozin in Subjects with Type 2 Diabetes with Inadequately Controlled Hypertension treated with an Angiotensin-Converting Enzyme Inhibitor (ACEI) or Angiotensin Receptor Blocker (ARB) or Additional Antihypertensive Medication. Bristol Myers Squib, Astra-Zeneca
- 14 A randomized, placebo-controlled, double blind, fixed –dose study of the efficacy and safety of eszopiclone in children (6-11 years) and adolescents (12 to 17 years) with attention-deficit/hyperactivity disorder-associated insomnia. Sunovion. 2010-2011.
- 15 A long-term, open label, safety study of eszopiclone in children (6-11 years) and adolescents (12 to 17 years) with attention-deficit/hyperactivity disorder-associated insomnia. Sunovion, 2010-2011
- 16 A Randomized, Double blind, Placebo-Controlled, 3-Way Crossover, Multicenter Polysmnography Study of Pregabalin and Pramipexole in Adults with Restless Legs Syndrome. Pfizer, 2009-2011.
- 17 A multicenter, randomized, double-blind, placebo-controlled study to evaluate cardiovascular outcomes following treatment with Alogliptin in addition to standard of care in subjects with type 2 diabetes and acute coronary syndrome. Takeda, 2009.
- 18 A Polysomnography study of GSK1838262 (XP13512) extended release tablets versus placebo in the treatment of Restless Legs Syndrome (RLS) and associated sleep disturbance. GlaxoSmithKline. 2008.
- 19 A long-Term study of XP 13512 vs. Placebo Treatment assessing maintenance of Efficacy and Safety in Patients with Restless Leg Syndrome. Xenoport, 2006-2007.
- 20 A Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Multi-Center Trial Comparing the Effects of Orally Administered Xyrem® (sodium oxybate) with Placebo for the Treatment of Fibromyalgia. Jazz Pharmaceuticals.
- 21 Assessment of Serevent (Advair) in patients with Asthma. GlaxoSmithKline.
- 22 A Randomized, Double-Blind, Placebo Controlled, Parallel Group, Multicenter, Fixed Dose, Polysomnographic Study of PD 0200390 in Patients with Primary Insomnia.

- 23 A 12-Week, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group Study to Evaluate the Efficacy and Safety of CEP-10953 (150 mg/day) as Treatment for Adults With Residual Excessive Sleepiness Associated With Obstructive Sleep Apnea/Hypopnea Syndrome.
- 24 A 12 Month. Open-Label, Flexible-Dosage (100-250 mg/day) Extension Study of the Safety and Efficacy of CEP-10953 in the Treatment of Patients with Excessive Sleepiness Associated with Narcolepsy, Obstructive Sleep Apnea/Hypopnea Syndrome, or Chronic Shift Work Sleep Disorder.
- 25 Randomized, Double-Blind, Double-Dummy, Placebo-Controlled, Parallel-Group, Multi-Center Trial Comparing the Effects of Orally Administered Xyrem® (sodium oxybate) with modafinil with Placebo for the Treatment of Daytime Sleepiness in Narcolepsy.
- 26 A 12 Week, Double-Blind, Placebo Controlled, Parallel Group Study to Assess the Efficacy and Safety of Ropinirole XR (Extended Release) in Patients with Restless Legs Syndrome.
- 27 A Double-Blind, Randomized, Placebo-Controlled, Multicenter, 30-Night Polysomnographic Study of MK-0928 in Adult Patients with Insomnia.
- 28 A Phase 2, Double-Blind, Randomized, Placebo-Controlled, Parallel-Group, Multicenter, Proof-of-Concept Study to Evaluate the Safety and Efficacy of Rozerem ™ Taken in Combination with Gabapentin for the Treatment of Subjects with Chronic Insomnia.
- 29 A Randomized, Double-Blind, Placebo-Controlled, 3-Way Cross-Over Study to Evaluate Effects of APD125 in Patients With Insomnia.
- 30 A Phase III, Randomized, Double-Blind, Placebo-Controlled, Parallel-Group, Multicenter Study to Assess the Long Term Efficacy and Safety of Doxepin HCL in Primary Elderly Insomnia Patients with Sleep Maintenance Difficulties.
- 31 Efficacy and Safety of Eplivanserin 5 mg/day in Sleep Maintenance Insomnia: A 12-Week Multicenter, Randomized, Double-Blind, Placebo-Controlled Study Followed by an Open Treatment Phase Extension with Eplivanserin for 40 Weeks Period.
- 32 The Efficacy of Eszopiclone 3 mg as Adjunctive Therapy in Subjects with Insomnia Related to Generalized Anxiety Disorder (GAD): A Randomized, Double-Blind, Placebo-Controlled. Parallel-group, Adjunctive Therapy Trial.