

SUMMARY

A distinguished researcher, fluid dynamicist, and aerosol scientist, Mr. Piper is an inventor, entrepreneur, and expert on numerous medical technologies, primarily in the area of respiratory care and aerosol technologies. A published author on a range of topics, Mr. Piper has worked on and is responsible for bringing to market dozens of medical products

PUBLICATIONS

PRESENTATIONS

Publications & Presentations

- Piper, SD. In-Vitro Comparison of the Circulaire and AeroTee to a Traditional Nebulizer T-Piece with Corrugated Tubing. *Respiratory Care* 2000;45(3): 313-9
- Raabe OG, Wong T, Roxburgh JW, Piper SD, Lee JIC. Continuous Nebulization Therapy for Asthma with Aerosols of Beta2 Agonists. *Annals of Allergy, Asthma, and Immunology*. 1998;80(6): 499-508
- Piper, SD, Kelly E. Sonik LDI: An Innovative, Formulation-Friendly Approach to Inhalation Delivery. *Drug Delivery Technology*. 2002;2(6): 52-57
- Piper, SD. The Combined Obstacles of Developing an Innovative Technology and an Emerging Enterprise. Sacramento Entrepreneur Academy. Sacramento, California. April 27, 2002.
- Piper, SD. Sonik LDI: A New Approach to Inhalation Delivery. Strategic Research Institute's 7th International Drug Delivery Technologies and Deal-Making Conference. Princeton, New Jersey. July 10, 2002.
- Piper, SD. Using Supersonic Shear Force for Pulmonary Delivery: The Performance of the LDI Aerosolization Technology for the Delivery of Antibodies. Protein and Peptide Drug Delivery Conference. Boston, Massachusetts. September 27, 2002.
- Piper, SD. A Comparison of Liquid Aerosolization Technologies for the Delivery of Antibodies and Suspensions. Inhalation Drug Delivery Conference: An International Symposium. Princeton, New Jersey. December 3, 2002.
- Piper, SD. Evit Labs' Aerosol Technology: Conquering Cost & Efficiency Barriers for Better Pulmonary Delivery. *Drug Delivery Technology* (interview). 2003;3(1): 74-75
- Piper, SD. Entrepreneurial Mindset and Presentation Skills. UC Davis Connect Innovator's Boot camp. Sacramento, California. May 20, 2003.
- Piper, SD. Emerging Pulmonary Technologies and Pending Obstacles in the Local Region. Davis Area Technology Association. Davis, California. September 23, 2003
- Piper, SD. Professional Conduct and the Key Elements of Starting a Successful Business. California State University of Sacramento. IEEE Professional Awareness Conference. Sacramento, California. March 11, 2005.
- Piper, SD. Clarification of Performance Characteristics of the Vortran Automatic Resuscitator. *Respiratory Care* (Letter to the Editor). 2008; 53(8): 1089-90
- Piper, SD, et al. Aerosol Performance Of The MetaNeb System Under Simulated Breathing Conditions. Thematic Poster Session. 2013 ATS International Conference in Philadelphia, Pennsylvania

PATENTS

Patents

- Inhalation Actuated Nebulizer with Impingement Shield, 8,596,263, 12/3/2013
- Shock Wave Aerosolization Method and Apparatus, 6,981,660 January 3, 2006
- Shock Wave Aerosolization Method and Apparatus, 6,742,721 June 1, 2004
- Pulmonary Modulator Apparatus, 6,067,984 May 30, 2000
- High Efficiency Medical Nebulizer, 6,338,443 January 15, 2002
- Inhalation Therapy Apparatus, 6,390,090 May 21, 2002
- Powder Inhaler with Aerosolization Occurring Within Each Individual Powder Receptacle 5,533,502 Jul. 9, 1996
- Breath Actuated Medicinal Aerosol Delivery Apparatus 5,479,920 Jan. 2, 1996
- Universal Nebulizer 5,287,847 Feb. 22, 1994
- Medicinal Aerosol Delivery System 5,287,849 Feb. 22 1994

EXPERT WITNESS

Reports: 4
Depositions: 3
Court Appearances: 0

Resmed vs BMC Medical and 3B Medical. Retained by Resmed, on July 3, 2016. Resmed represented by Fish & Richardson P.C.. Complaint involved infringement upon Resmed humidity device while used with CPAP. My work in this case involved generation of an expert report, rebuttal, declaration, and deposition. The case settled January 20, 2017 three days before the trial was scheduled to commence.

Fontem vs Nu Mark. Retained by Nu Mark, on May 13, 2016. Nu Mark represented by Weil, Gotshal, & Manges, LLC. Initial complaint filed by Fontem alleged patent infringement on a number of electronic cigarette patents. As part of my involvement in this case, I did research on prior art technologies. As of January 11, 2017, I was informed that the case had settled, and I did not generate any reports, declarations or participate in any depositions in this case.

Fontem vs CD Distributors. Retained by CD Distributors, on June 3, 2014. CD Distributors represented by Morrison & Foerster, LLP. Initial complaint filed by Fontem alleged patent infringement on a number of electronic cigarette patents. In response, CD Distributors took a number of invalidity actions including Inter Partes review with the US Patent and Trademark Office. The parties settled in this case, and my work included an expert report, a rebuttal, two declarations and two depositions in support of invalidity actions. The case settled.

Ventronics vs Draeger, Maquet, Hamilton, and Event Medical. Retained by Ventronics, on January 13, 2012. Ventronics represented by McDermott Will and Emery. Complaint involved infringement upon Ventronics ventilator patent. My work included detailed analysis of respondent's ventilator operation in support of infringement claims. The case settled, and I did not generate any reports, declarations or participate in any depositions in this case.

S. David Piper, P.E.

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WORK HISTORY

Piper Medical
1995-present

President and CEO

EVIT Labs, Inc
2000-2006

President, CEO, and Founder

Vortran Medical
1990-1995

Director of Research & Development

EDUCATION

Cal Poly, San Luis Obispo, B.S. Mechanical Engineering with Honors,
1989

Registered Professional Mechanical Engineer with the State of
California, M029026