BIOGRAPHICAL SKETCH

NAME: Pat Keady

POSITION TITLE: CEO/President, Aerosol Devices Inc

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	Completion Date MM/YYYY	FIELD OF STUDY
University of Minnesota, Minneapolis, MN	BS	1980	Mechanical Engineering (focus on biomedical)
University of Minnesota, Minneapolis, MN	MS	1987	Mechanical Engineering (focus on particle technology)
University of St. Thomas, St. Paul, MN	MBA	⅔ complete	Business (focus on marketing & management)

A. Personal Statement

Ms. Pat Keady has both a strong technical and business background in the field of aerosol science. With a BS/MS in Mechanical Engineering from the University of Minnesota, and MBA studies at the Univ. of St. Thomas, St. Paul, MN she has the educational background and over 35 years of experience as an engineer, senior business manager and entrepreneur. Most of her experience has been in the business world working for mid-sized companies that develop and market instrumentation for aerosol research, environmental, filtration, contamination control, analytical chemistry, and industrial hygiene applications.

In 2014 she realized a long-held dream of starting her own aerosol instrumentation company. Along with co-founder Dr. Susanne Hering, Pat founded Aerosol Devices Inc. in Fort Collins, CO with the goal of bringing to market an advanced aerosol particle collector based on the patented technology of condensational particle growth and gentle impaction. It is with this foundational technology that the company is expanding applications for viable airborne virus, bacterial and fungal spore sampling including integrating the sampler with detection sensors for real-time monitors.

Pat is a past President of The American Association for Aerosol Research (AAAR) and has served on numerous organizational committees. She has two issued and three pending patents on aerosol measurement, over 25 peer-reviewed publications, and is a frequent presenter at technical conferences and seminars. On May 2021 she was honored with CEO Today's 2021 Business Women of the Year award.

B. Positions and Honors

Positions and Employment

1978-2002 VP of Quality and Technical Recruiting, Division General Manager, Sales and Marketing Manager, Mechanical Development Engineer; TSI Incorporated, Shoreview, MN.
2010-2012 Director of Marketing and Business Development, Engineering Manager; Droplet Measurement Technologies, Boulder, CO.2014-present CEO/President, co-founder; Aerosol Devices Inc., Fort Collins, CO.
2012-2014 Professional Research Assistant; University of Colorado Boulder, Boulder, CO.
2002-present Marketing/Business Consultant; Keady Marketing LLC, Ft. Collins, CO.
2014-present CEO/President, co-founder, Aerosol Devices Inc., Fort Collins, CO.

Professional Service

1993-2002 Board Member and Officer of American Association for Aerosol Research (AAAR):, Board Member 1993-96, Secretary 1996-99, Vice President 1999-2001 and President 2001-02.

1999-2002 Advisory Board Member, University of Minnesota School of Public Health.

2005-2006 Board of Directors, Flagstaff Academy Charter School, Longmont, CO, Vice President, Fund Development and Marketing Chair.

C. Contributions to Science

Partial List of Publications

Keady, P. B., Quant, F. R., & Sem, G. J. (1983). Differential mobility particle sizer: A new instrument for high-resolution aerosol size distribution measurement below 1 μm. *TSI Quarterly*, IX (2), 3–11.

Keady, P. B., Quant, F. R., & Sem, G. J. (1984). Automated differential mobility particle sizer. In Aerosols, B. Y. H. Liu, D. Y. H. Pui & H. J. Fissan (Eds.), pp. 71–74.

Clifford R, Tan H, Liu H, Montaser A, Zarrin F, Keady P. Particle Size Measurements in the Submicrometer Range by the Differential Electromobility Technique: Comparison of Aerosols from Thermospray, Ultrasonic, Pneumatic and Frit-type Nebulizers. *Spectrochimica Acta* 48B (10, 1221-1253 (1993).

Keady PB, Halvorsen T. A New Tool for Eliminating Indoor Air Quality Complaints. *Journal of Nanoparticle Research* 2: 205-208, (2000).

Hering S.V., M. R. Stolzenberg, F. R. Quant, D. R Oberreit, P. B. Keady. A laminar-flow, water-based, condensation particle counter (WCPC). *Aerosol Science and Technology*, 39 (7):659-672, July (2005).

Iida, K., M. R. Stolzenburg , P. H. McMurry , J. N. Smith , F. R. Quant , D. R. Oberreit, P. B. Keady , A. Eiguren-Fernandez ,G. S. Lewis , N. M. Kreisberg and S. V. Hering (2008) An Ultrafine, Water-Based Condensation Particle Counter and its Evaluation under Field Conditions, *Aerosol Science and Technolog*y, 42:10, 862-871, DOI: 0.1080/02786820802339579.

Iida, K., M. Stolzenburg, P. McMurry, M. J. Dunn, J. N. Smith, F. Eisele, and P. Keady (2006), Contribution of ion-induced nucleation to new particle formation: Methodology and its application to atmospheric observations in Boulder, Colorado, *J. Geophys. Res.,* 111, *D23201, doi:*10.1029/2006JD007167.

Emerson JB, Keady PB, Brewer TE, Clements N, Morgan EE, Awerbuch J, Miller SL, and Fierer N. Impacts of Flood Damage on Airborne Bacteria and Fungi in Homes after the 2013 Colorado Front Range Flood. *Environ. Sci. Technol*., DOI: 10.1021/es503845j, Publication Date (Web): February 2, (2015).

Emerson, J. B., Keady, P. B., Clements, N., Morgan, E. E., Awerbuch, J., Miller, S. L. and Fierer, N. (2016), High temporal variability in airborne bacterial diversity and abundance inside single-family residences. *Indoor Air*. doi:10.1111/ina.12347

Clements, N, Keady PB, Emerson, JB, Fierer, N, and Miller, SL. (2018) Seasonal Variability of Airborne Particulate Matter and Bacterial Concentrations in Colorado Homes. *Atmosphere* **2018**, *9*(4), 133; https://doi.org/10.3390/atmos9040133.

Nieto-Caballero, M., N. Savage, P. Keady, and M. Hernandez. High fidelity recovery of airborne microbial genetic materials by direct condensation capture into genomic preservatives, *Journal of Microbiological Methods*, Volume 157, February 2019, Pages 1-3, https://doi.org/10.1016/j.mimet.2018.12.010 (2019).

Hurley, J. F., N.M. Kreisberg, B. Stump, C. Bi, P. Kumar, S.V. Hering, P. Keady and G. Isaacman-VanWertz. A new approach for measuring the carbon and oxygen content of atmospherically-relevant compounds and mixtures, Pre-print under review, *Atmos. Measurement Tech*. https://doi.org/10.5194/amt-2020-44

Issued Patents

US Patent #4,790,650, “Condensation Nucleus Counter,” Dec 13, 1988, inventor Patricia B. Keady.

US Patent #6,125,845, “Respirator Fit-Testing with Size-Selected Aerosol,” Oct 3, 2000, inventors Patricia B. Keady and Thomas G. Halvorsen.