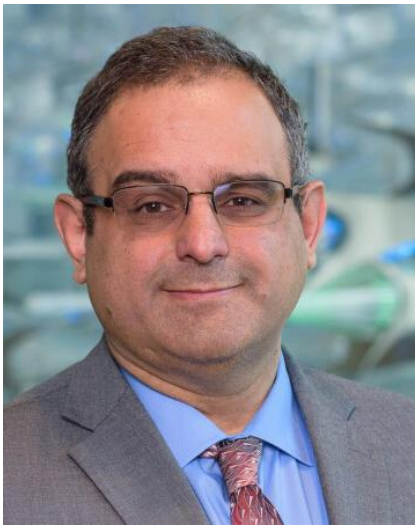
Dr. David Lary, Ph.D., Technology Inventor Finalist for the 2023 Tech Titans Awards for His Work

DALLAS (August 22, 2023)… ActivePure Technologies today announced Dr. David Lary, Ph.D., is a Technology Inventor finalist for the prestigious 2023 Tech Titans Awards for his role in MINTS-AI. MINTS-AI is a comprehensive environmental observatory using nine types of sentinels, including wearable sensors, satellite sensors, multi-robot autonomous teams (aerial, aquatic, and walking) and 24/7 sensing across dense urban environments. Dr. Lary, a professor of physics at UT Dallas, has played a pivotal role in spearheading ActivePure Research Labs L.L.C. and ActivePure's Holistic Environmental Assessment Research & Technology (HEART) initiative and the ActivePure Air Quality Lab. ActivePure's support of the partnership between the city of Richardson and the University of Texas at Dallas (UTD) has led to the extension of the MINTS-AI network to include the Richardson IQ.



Dr. David Lary, Ph.D.

The Technology Inventor Award recognizes individuals, teams or groups from North Texas who have significantly contributed to creating groundbreaking ideas, processes or products within their respective fields. Dr. Lary's nomination is a testament to his pioneering accomplishments in advancing the discipline of indoor community infrastructure and environmental assessment.

Scientific testing and analysis are fundamental in addressing critical issues such as airborne pandemics, indoor air pollution, building energy usage and long-term efficiency optimization. Driven by a passion for pre-emptive human protection and holistic sensing, Dr. Lary has dedicated his career to developing innovative solutions that serve society.

With an impressive academic background, Dr. Lary holds a First Class Double Honors B.Sc. in Physics and Chemistry from King's College London, where he was awarded the Sambrooke Exhibition Prize in Natural Science. He also earned a Ph.D. in Photochemical Computer Modeling of Atmospheric Chemistry from the University of Cambridge. Over the years, Dr. Lary has held esteemed positions at Cambridge University, NASA and various other prestigious institutions.

The MINTS-AI approach, a subset of which is being applied to the ActivePure Air Quality Lab, is a comprehensive environmental observatory using nine types of sentinels, including wearable sensors to satellite sensors, multi-robot autonomous teams (aerial, aquatic and walking) and 24/7 sensing across dense urban environments. One aspect of MINTS-AI is coupling observations of multiple components of air quality using data assimilation with a full theoretical model describing thousands of reactions of many thousands of chemical components of air quality. This facilitates the accurate estimation together with an uncertainty of key reactive species that are typically below the detection limit of conventional instruments. The environmental observatory is coupled to an equally comprehensive social observatory, including over a thousand parameters for each zip code from the US census and all emergency room admissions for the entire state of Texas over the last 20+ years. Together, this facilitates many multi-faceted research strategies with great potential for quantifiable real-world benefit.

Dr. Lary said, "We have begun deploying a multi-scale sensing system (MINTS-AI) that incorporates as a component an urban test bed across the UTD campus, measuring at high temporal and spatial resolution the physical environment (temperature, pressure, humidity, rainfall, wavelength resolved irradiance from the UV to infrared), the air quality context (CO2, the size distribution of airborne particulates, and at some locations reference grade O3 monitors), and aspects of the wider ecosystem context, such as real time identification of bird song (every 3 seconds) using machine learning at the edge. On a larger scale than

the UTD test bed, across the broader Dallas-Fort Worth area we have close to 100 sensors deployed in collaboration with community partners. Given the rising challenges we face, it is now timely to deploy at a much wider societal scale to provide actionable insights for quantifiable real-world societal benefit. MINTS-AI also uses both street-level surveys from electric vehicles and global-scale near real-time sensing from satellites (developed while the PI was at NASA), as well as multi-member autonomous robotic teams that we developed for the United States Special Operations Command (USSOCOM) to answer the question 'is the area safe' (DoD demonstration videos of the autonomous robot team are available at https://youtu.be/-VB3og5qmG0 and https://youtu.be/_X8cKNC7Hn0), and our comprehensive wearable sensors of the human autonomic response developed for the army and USSOCOM."

Through the HEART initiative, ActivePure, in collaboration with UT Dallas, aims to understand interior air environments comprehensively, the associated risks and the most effective methods to eliminate those risks. Leveraging advanced technologies such as mass spectrometry and spectral analysis, the research endeavors to "see the invisible" and enhance the safety of individuals in indoor spaces.

ActivePure's patented Advanced Photocatalysis technology is vital in maintaining indoor air quality. By recreating the sun's power using UVC lights and a catalyst that works with ambient air humidity, ActivePure Technology generates oxidizing molecules that continuously seek and reduce airborne and surface pathogens. This groundbreaking approach provides a sustainable and environmentally conscious solution without the need for chemicals, ozone, ventilation or the trapping/filtering of contaminants.

Tech Titans, the largest technology trade association in Texas representing a quarter million employees through its 300 member companies, is committed to fostering a vibrant technology community in North Texas. With a diverse membership base comprising startups, corporations, investors and students, Tech Titans promotes innovation, talent development and technological advancement through various programs and forums.

"Dr. Lary's nomination as a Technology Inventor finalist highlights the exceptional contributions he has made to the field of atmospheric chemistry and environmental assessment," said Joe Urso, chief executive officer of ActivePure. ActivePure is honored to have Dr. Lary leading our HEART initiative, pushing the boundaries of scientific research, technology development, and a healthier planet Earth."

The winners of the 2023 Tech Titans will be announced on September 29. For more information on Tech Titans, please visit https://techtitans.org/awards-gala/.

For more information about ActivePure, the ActivePure Research Lab and the HEART initiative, please visit ActivePure.com or call 888-217-4316.

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ABOUT ACTIVEPURE

ActivePure is a global leader in sustainable, active, continuous surface and air decontamination systems for healthcare and educational institutions, commercial and public facilities, hospitality and residential applications. Patented ActivePure Technology has been proven in independent university and laboratory testing to control and neutralize indoor contaminants effectively. It is the only product in its class recognized by the Space Foundation as Certified Space Technology and inducted into the Space Foundation Hall of Fame. In 2022, ActivePure was named on the Inc. 5000 list of most successful and fastest-growing private companies in America. In addition, the ActivePure Medical Guardian is registered and cleared as an FDA Class II Medical Device. ActivePure Technology was developed for space exploration and has since evolved for use in commercial and consumer products that reduce exposure to pathogens, including RNA and DNA viruses, bacteria and molds, by up to 99.9% in the air and on surfaces. ActivePure is privately held and began business as Electrolux USA in 1924. For more information, please visit ActivePure.com or call 888-217-4316.

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