For Immediate Release

Patent Issued to Innovative, Energy-Efficient Air Filtration Technology Developed at The University of Washington

- The patented Advanced Particle Removal Technology (APRT)—in which charged particle-repelling plates are paired with disposable, foam-encased, charged particle-collecting plates—is the result of five years of research at The University of Washington's Sensors, Energy, and Automation Laboratory.
- Current concerns about airborne disease—including controlling indoor air quality and protecting respiratory health—underscore the timely value of the technology to remove airborne viruses and reduce particulate-borne aerosol transmission.
- Exclusive, worldwide licensee Agentis Air, LLC sees APRT as a foundational technology for a new generation of energy-efficient purification devices and as an adaptation for current or legacy systems.

COLUMBIA, Maryland. June 5, 2020—The US Patent and Trademark Office this week issued a patent to the University of Washington (UW) for a new form of high-capacity, energy-efficient air filtration, developed at the UW Sensors, Energy, and Automation Laboratory.

The design, in which particle-repelling plates are paired with disposable, foam-encased, particle-collecting plates, can be used in air purification and HVAC design applications for commercial and consumer markets. The technology covered in US Patent No. 10,668,483 was developed under the direction of Igor Krichtafovitch, PhD, an expert in electrostatics and particle pollution reduction. Dr. Krichtafovitch is the Director of Research and Development at Agentis Air, LLC, the exclusive worldwide licensee of the technology.

“Dr. Krichtafovitch and Agentis Air have been working closely with UW's CoMotion innovation hub for several years to develop this technology and to build a patent portfolio so the technology can be brought to market. We are excited about the patent and the numerous energy-saving commercial filtration applications that this foundational technology may enable,” notes Larry Rothenberg, Agentis Air president.

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Indoor air quality has long been linked to a growing number of life-shortening diseases—including respiratory ailments, heart disease, and dementia. With recent public health concerns, the ability of APRT-enabled air purification devices and systems to remove virus particles underscores the importance of this technology.

APRT has several advantages over existing filter-media technologies (such as HEPA filtration), notably the ability to substantially reduce backpressure and energy use. Unlike mechanical HEPA-style filtration, there is no filter to clog, so airflow is improved for lower energy use, lower cost, and quieter operation; The APRT collection media has a longer life, as well.

A significant advantage for commercial applications, APRT is the first filtration system capable of smart control, offering the ability to increase or decrease system filtration levels and energy use on demand. This smart-control feature is designed to take advantage of advances in IoT and sensor technology so filtration can be monitored and adjusted in real time.

The patented technology overcomes the limitations of traditional Electrostatic Precipitator (ESP) systems: APRT eliminates manual cleaning, making it a commercially scalable, low labor-cost solution; Increased surface area improves effectiveness over traditional ESP, as does increased load capacity. The technology also reduces particle re-entry into the air and filters ozone.

Agentis Air, LLC is developing and marketing branded products and plans to partner with companies that can use the technology to improve the air-filtration capabilities of a wide range of products and systems. Potential applications include portable air purifiers, commercial HVAC systems, air exchangers, and dynamic air-filtration systems using sophisticated, building-control sensor data.

**About the University of Washington and CoMotion**

Ranked by Reuters as the #1 most innovative public university in the world, the University of Washington is a leading recipient of federal funding research, producing innovations that have the power to change the world. CoMotion at the University of Washington is the collaborative innovation hub dedicated to expanding the global economic and societal impact of the UW community. By developing and connecting to local and global innovation ecosystems, CoMotion helps innovators achieve the greatest impact from their discoveries. Find more information at https://comotion.uw.edu.

**About Agentis Air**

Agentis Air is a collaboration of scientists, engineers, and entrepreneurs on a mission to improve health and longevity with innovative indoor air technology. With decades of university research and development experience, the company is focused on transformational technologies as the foundation for more effective products at lower costs and with lower energy usage. Agentis Air technology has broad applications for institutional, commercial, and consumer markets. Find more information at [https://agentisair.com](https://agentisair.com)

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