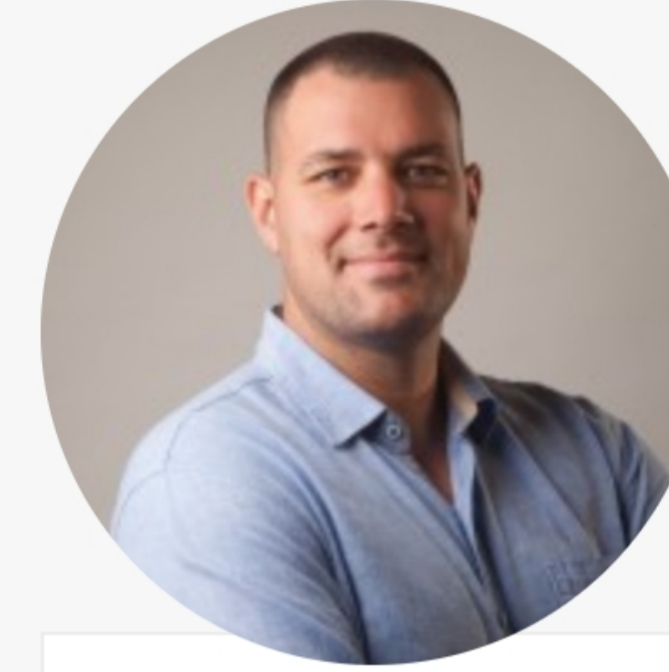


CHDS Alum, LA Paramedic Engaged in Climate Change Impact Work Worldwide

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Los Angeles, CA, firefighter paramedic Sevan Gerard has a true global view on a range of climate change impact issues from disaster medicine and public health to ecological damage mitigation and renewable energy.

The Center for Homeland Defense and Security Master's alum commutes to his day job in Southern California from his home in Austria, flying to the U.S. every few weeks. While Gerard ([Master's Program](#) cohort 1503/1504) calls his long-distance commute an "environmental black eye," he said he hopes to offset that through his climate change work in a variety of areas.



Sevan Gerard

And he said his CHDS educational experience has had a major influence on his work.

While Gerard is nearing retirement from the [Los Angeles Fire Department](#) in the next year or so after a 20-year career with the second-largest municipal fire department in the nation, he'll remain as busy as ever with his other endeavors.

In disaster medicine, Gerard already serves as the General Secretary for the [European Chapter of the World Association for Disaster and Emergency Medicine](#) (WADEM-EU), working on disaster medicine and public health convergence and co-leading an organization involved in research, policy recommendations, and academic partnerships focused on the health effects of climate change with partners including the European Union parliament, the World Health Organization, NATO, and non-governmental organizations.

The WADEM-EU's topical focus includes disaster response, medicine, and management of mass casualty and CBRN incidents, war medicine, climate refugee migration patterns and predictions, epidemiological changes related to climate dynamics, along with other topics, he said.

At the same time, Gerard said he is working on his PhD focused on applying complexity science to disaster health research using the framework of the sociotechnical ecosystem he developed in his CHDS Master's thesis titled "A Proposed Cosmology of Identity in the Sociotechnical Ecosystem of Homeland Security" to establish research parameters in complex dynamic systems for establishing quality assurance frameworks in disaster medicine research and practice.



Sevan Gerard's thesis

[A Proposed Cosmology of Identity in the Sociotechnical Ecosystem of Homeland Security](#)

And he is in the process of building an academic center for disaster medicine, and a center of excellence in pediatric disaster medicine within the center, at [Paracelsus Medical University](#) (PMU) in Salzburg, Austria. Gerard said the "integration of climate into health sciences is well on its way but far from where it needs to be," adding that it is anticipated that large climate refugee migration crises will lead to significant political instability and overwhelmed health services around the world.

Meanwhile, Gerard is personally invested in renewable energy and ecological mitigation projects.

His family owns and operates a small hydroelectric power station in Bavaria, Germany, not far from his home, which he said has offered interesting insight into the politics of Big Energy and the effects of lobbies on governance. Gerard said the family business is "looking into tech innovations that are compounding the impacts on climate, such as AI and future quantum computing energy requirements, but the real issues and human impacts are fundamentally driven by poor politics and lack of commitment to industrial and labor innovation."

In addition, he is co-founder and CEO of [Aviogel](#), a start-up based in Italy that is developing a fire suppression system involving a pellet additive for aerial water drops for use in battling wildfires, which Gerard said "extinguishes the fires with more accuracy while providing safer flying conditions for pilots, coats the vegetation with biodegradable retardant, which then fertilizes the soil, and finally amends the soils and replants vegetation with integrated seeds all in one. The purpose is to regenerate a soil conducive to growing conditions 2-4 years faster than without treatment."

"The goal," he said, "is to make this a climate game changer by regrowing vegetation and trees faster, preventing landslides and mudslides, and protecting water tables from post-fire contamination," among other benefits.

Gerard said his CHDS education was one of the highlights of his academic career and "had a very significant influence on my professional life."

CHDS "really influenced how I thought about furthering my professional career and I just I realized you know I don't have to remain siloed," he said. "This non-linear way of thinking about things that we learn at CHDS helps us think about how can we create solutions to issues in ways that are innovative, that are different than what we normally do. It's about finding emergent ideas, emergent possibilities, and trying to tackle some of these big problems and challenges. And I would say CHDS was a really, really big factor in [bolstering] my confidence in pursuing these big projects."

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