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## Linfield Graduate Joins NASA Research Team

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## Linfield graduate joins NASA research team

Humanitarian, explorer and Wall Street businessman Scott Hamilton '77 has ventured to the tops of the world's tallest mountains. His most recent endeavor looks even farther to the skies.

Hamilton was invited to join a NASA research team searching for a countermeasure for visual impairment intracranial pressure syndrome (VIIP). He is president of Dooley Intermed International, and also co-leader of the Operation Restore Vision team, affiliated with the New York Eye & Ear Infirmary.

Due to exposure to microgravity during prolonged space flight, 76 percent of astronauts have experienced ocular problems, or VIIP. Understanding the causes of VIIP syndrome and developing effective countermeasures is a top human research priority for NASA.

Hamilton first learned about VIIP while making a presentation about his third world outreach eye expeditions at a gathering of innovators, where he was approached by a NASA astronaut interested in his ideas. He discussed the issue of VIIP with expert ophthalmologist Omar Ozgur, and collaborated to develop two ideas; a contact lens-based sensor to monitor intraocular pressure, and three-dimensional modeling of facial and orbital areas.

NASA liked Hamilton and Ozgur's ideas and invited them to join their research team for the study. While exercise in space is crucial to preventing bone density loss and maintaining cardiac fitness, it is not known whether the type of exercise exacerbates or minimizes ocular maladies. A better understanding of VIIP syndrome is a crucial step toward deep space exploration and sending a future manned mission to Mars, Hamilton said.

"Never underestimate the value of a liberal arts education, or where it might lead," said Hamilton, who earned a business degree from Linfield and later, an MBA from the University of Chicago.



Scott Hamilton '77, right, president of Dooley Intermed International, has been invited to join a NASA research team focusing on vision. He has traveled with medical teams to remote areas of the world and taken part in extreme environmental testing of advanced technologies for use in outer space. Hamilton is pictured here with Omar Ozgur, left.

"I could never have imagined being invited to join a NASA research team."

Hamilton has traveled with medical teams to Nepal, Tibet and other parts of the world, spending more than 500 nights on various expeditions. In addition to his business and humanitarian activities, he is a certified ophthalmic technician, and holds a faculty appointment in the Department of Ophthalmology at the Icahn School of Medicine in New York City.

Hamilton has taken part in previous extreme environmental testing of advanced technologies for use in outer space and has also helped develop and test low light undersea vision technologies. In 2009, he and fellow Linfield alumnus Brian Lawrence '99 climbed 19,341 feet to reach the summit of Africa's highest point,

Mount Kilimanjaro, as members of the East Africa High Altitude Research Expedition, a 24-member biomedical research team. Hamilton and Lawrence also participated in a similar high altitude research expedition to Mount Everest Base Camp in 2007.

The journey up Kilimanjaro was Hamilton's second – he has climbed all over the world, in the Andes, Arctic and Himalayas, and said he thrives on the challenge. An expedition to restore eyesight to people in the Himalayan mountains is featured in "Visions of Mustang," a film he produced which was selected as a finalist at the Banff Mountain Film Festival.

– Morgan Gerke '16