

New grass spray designed to relax and de-stress

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Ever wanted to bottle the green fresh aroma of a forest? UQ researcher Dr Nick Lavidis has done just that with a new "eau de grass" spray soon to be launched on the market.

Serenascent, which smells like cut grass and claims to make the wearer happier and less stressed was launched this month by the Treasurer and Minister for Employment and Economic Development Andrew Fraser.

Mr Fraser congratulated researchers Dr Lavidis from The University of Queensland's School of Biomedical Science and retired pharmacologist Associate Professor Rosemarie Einstein for their seven-year research project.

"Dr Lavidis and Associate Professor Einstein have developed a spray based on scientific proof that when grasses and green leaves are cut at least five chemicals containing stress-relieving properties are released," he said.

"The new Serenascent combines three of these chemicals to help reduce the harmful impact of stress on the nervous system.

"Prolonged stress can lead to a number of serious conditions like [high blood pressure](#), heart problems, [memory loss](#), anxiety, depression and the suppression of the body's ability to fight infections."

Dr Lavidis said he first had the idea for Serenascent on a memorable trip to Yosemite National Park in America more than 20 years ago.

"Three days in the park felt like a three-month holiday," he said.

"I didn't realise at the time that it was the actual combination of feel good chemicals released by the pine trees, the lush vegetation and the cut grass that made me feel so relaxed.

"Years later my neighbour commented on the wonderful smell of cut grass after I had mowed the lawn and it all started to click into place."

Dr Lavidis said that the aroma of Serenascent worked directly on the brain, in particular the emotional and memory parts known as the amygdala and the hippocampus.

"These two areas form the limbic system that controls the [sympathetic nervous system](#)," he said.

"They are responsible for the flight or fight response and the endocrine system, which controls the releasing of stress hormones like corticosteroids.

"The new spray appears to regulate these areas.

"There are two types of stress. The first is when you are about to perform something or you know you are going to have to do something well. That's acute stress and can be a good form of stress.

"Bad stress is chronic stress and is associated with an increase in blood pressure, forgetfulness and a weakening of the immune system."

Chronic stress has been shown to damage the hippocampus by reducing the number of synaptic connections between communicating neurons. Functionally this loss leads to a reduction in communication between neurons and a resultant loss of memory. In old animals this damage is permanent.

UQ PhD students Liz Butt and Ei Leen Leong have shown that animals exposed to Serenascent during stress avoid the stress-induced damage of the hippocampus.

A number of projects have sprouted from this study.

Colleagues Associate Professor Peter Noakes and Dr Mark Bellingham are collaborating on examining the effects of Serenascent on the hippocampus and amygdala, Dr Adrian Bradley and Dr Graham Legget on the effects of Serenascent and stress on the immune system and Associate Professor Conrad Sernia on [stress](#) and oxidant levels in the blood.

The UQ students conducting most of this work are Giti Haddadan, Liz Butt, Curtis Poyton, Jessica Soden, Carlie Cullen, Jeremy Spiers, Peter Carlyle, Neville Hartley, Erica Mu, Ei Leen Leong and Maria Arian.

Dr Lavidis said the project had received funding from Brisbane-based company Neuroscint as well as philanthropic donations and would be made and distributed online by Sydney-based company Neuro Aroma Laboratory in early September.

“It can be used as a room spray or a personal spray on bed linen, a handkerchief or clothing,” he said.

“Down the track we will look at incorporating the feel good chemicals into other products such as cosmetics and perfume.”

Dr Lavidis said his research work was also made possible by the Queensland Government's commitment to building a Smart State.

“This has led to attracting more students into biomedical research,” he said.

“My laboratory has grown from two to 10 doctorate students and all have received scholarship money from the State Government and the University.”

Provided by University of Queensland ([news](#) : [web](#))

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