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Prairie View A&M scientist Raul Cuero develops breakthrough technology to prevent skin cancer

Prairie View A&M University scientist Raul C. Cuero is one step closer to finding a prevention agent for human skin cancer. Cuero, a research scientist in the PVAMU College of Agriculture and Human Sciences, used funding from NASA to develop his breakthrough discovery concerning a natural blocking agent for ultra-violet radiation to prevent skin cancer. A patent for the invention is pending.

Cuero partnered with David McKay, a NASA scientist to develop the natural compound, which is slated to revolutionize the prevention and treatment of skin cancer.

Produced using grant sources, Cuero's new technology agent is a natural compound extracted from a non-pathogenic microorganism, as compared to many existing compounds currently available, which are synthetic and spur toxic effects to the body. Cuero's method to fight skin cancer and eliminate irradiations is natural, easy to produce and can be extracted at a low cost. Experts in the field explain that it is simple to apply by most people and extremely versatile.

Developed after eight years of research, the new PVAMU discovery can be used to block ultra-violet radiation. The research conceived by Cuero is unique because it can be used to protect humans against skin cancer, which is often induced by UV radiation and other types of radiations. Currently, Cuero is working with molecular and genetic technology to enhance production of the microbial UV-blocker in order to find the best method of advancing the technology for commercial use.

Blake Petty with the Texas A&M University Office of Technology Commercialization has been engaged in working with Cuero to develop and market the technology for general use and treatment.

"Dr. Cuero has a long and successful history of commercialization. He is a champion of our efforts to translate academic excellence into marketplace products benefiting the public at large, and we are anxious to assess the commercial potential for his work in UV protection," states Petty.

In what could possibly mean the end of harmful skin cancer pain suffered by hundreds around the world each year, Cuero's new inventive technology was

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developed from a natural molecule with the ability to primarily inhibit and/or screen UV rays. This process will allow the development of pharmaceutical, medicinal and/or other compounds for protection against skin cancer, eye protection and/or physical and biological systems. Additionally, the technology can also be used to enhance the fermentation process. The technology will provide further aid protection for NASA astronauts and other persons from radiation while simulating and performing space trips.

"This new discovery will help researchers and scientists elucidate an important scientific quest on how organisms were able to survive at the beginning of earth, when there was a great UV presence in the earth's atmosphere. The principal ingredients to this discovery are natural and was discovered using the study of the earth's biosphere," advises Cuero, who has been with PVAMU since 1988.

A veteran scientist with several patents and 11 inventions to his credit, Cuero developed the natural blocker against UV and other radiation from ultra violet irradiation to block UV irradiation and other types of irradiations to protect humans against skin cancer induced by UV irradiation and other types of harmful irradiations.

"This discovery is very timely, due to the continued increase of UV radiation and the decrease of green-house protection in our atmosphere. This agent will help fight against harmful radiations produced by UV rays and cancer treatments," continues Cuero.

Once launched, the technology is intended to serve as an alternative agent to help protect humans against side-effects of irradiation used for cancer treatments. This new agent will also help protect animals exposed to harmful amounts of UV radiation.

For years UV technology has been studied, but PVAMU's research is slated to provide an innovative and cost-effective protection against UV radiation, directly or through screener devices. Also, the technology will prevent UV damages to surfaces. Cuero contends that this technology will be useful in protecting astronauts and other persons, as well as space crafts against intensive UV radiation that occurs during space trips.