Research

UMP researcher received CRDF2 grant of RM 1.06 million

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KUANTAN, 13 September 2021 - Professor. Dr. Arun Gupta from Faculty of Chemical and Process Engineering Technology, UMP received CRDF2 funding of RM 1.06 million from Malaysian Technology Development Corporation (MTDC) for the commercialization of Bioactive keratin protein.

It is the first time, a researcher from UMP has been awarded CRDF2 funding. The other members of the project are Professor Dato' Dr. Rosli Mohd Yunus and UMPT.

UMP has registered one spin-off company, UMP Keraglow Sdn. Bhd. to commercialize the production of keratin protein. It is the first plant in Malaysia to produce bioactive keratin.

It will be supplying keratin to all over Malaysia, India, New Zealand, Bangladesh and other countries as well.

Bioactive keratin is used as an active ingredient for anti-aging cream, face serum, shampoo, hair straightening cream, wound healing hydrogel and nutrient supplements.

According to Professor Dr. Arun, they discovered that the cost to extract keratin from sheep wool was expensive. He noted that Malaysia had a huge poultry slaughterhouses industry that disposed approximately four million tons of chicken feather annually and took advantage of the situation to conduct a research and find ways to commercialize the waste.

"We found out that chicken feather consisted of 91 percent of protein, 8 percent of water and 1 percent of keratin protein," he said.

The team has developed several methods of extracting keratin from chicken feathers and has been granted a US patent on the technology.

UMP Keraglow Sdn. Bhd., had also received the QB3 Start-up Acknowledgement Certificate during the Bio-economy Innovation Award 2017.

He also said it will be the first halal facility in Malaysia to develop a wide range of pharmaceutical and cosmetic products from bioactive keratin, the plant can produce 350 litre of keratin daily.

To date, we have received demands from abroad and there are plans to form a collaboration with suitable strategic partner or to franchise the technology to further expand the business.

Their research work had won a gold medal and special award at the Invention and New Products Exposition (INPEX) in Pittsburgh, US, a gold medal and special award at Malaysia Technology Exposition 2018 and at the Creation, Innovation, Technology and Research Exposition (CITREX) in UMP in 2017.



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