Commercial collagen

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STEAMED with chilli and garlic, the tilapia fish makes for a delicious meal, but a Universiti Putra Malaysia’s (UPM) researcher has discovered that the spiny-finned freshwater fish is a rich source of collagen.

The discovery offers consumers a halal alternative for the important protein, which is traditionally obtained from pigs and cows.

The collagen was discovered by UPM Faculty of Food and Science Technology lecturer and researcher Prof Dr Jamilah Bakar.

She then introduced it to biotech company Bionic Lifesciences, which included the ingredient in its bird’s nest product.

The improved final product was displayed at the Bionmalaysia 2011 Conference and Exhibition in Kuala Lumpur recently. Bionic Lifesciences director Prof Mohd Saleh Yahya and UPM deputy vice-chancellor (Research and Innovation) Prof Mohd Saleh Jaafar signed a memorandum of understanding (MoU) to seal the collaboration between the company and varsity to commercialise the product.

Prof Mohd Saleh said UPM’s objective for the collaboration is to enhance research and development for the biotechnological processes.

“This collaboration will help to provide technical assistance and knowledge and will be beneficial for UPM students to further their research on collagen,” he said.

Prof Jamilah shared that she had spent 12 years on the research.

“I actually started my research with gelatine which is used in almost all the food products and from there, I discovered that gelatine is obtained from collagen by hydrolysis,” she said.

“Collagen is used widely in the food industry as a food supplement in capsule, beverage and tablet forms.

“Society is starting to realise the importance of collagen in maintaining skin health, improving immunity, activating muscles and treating joint pain,” she said.

She added that prior to this, collagen had to be imported from China and Korea as there was no local source.

“We are the first in the region to produce halal aquatic collagen.

“The cosmetics industry can use it for its anti-ageing properties and include it into facemasks, hair products, nail products, creams and even directly into beverages because it is halal,” she added.
Students and visitors looking at the raw collagen sample and the range of products it could be used for at the signing ceremony.