

FABULOUS NEW FACILITY FOR THAMES VALLEY

England's Deputy Chief Dental Officer, Dr Serbjit Kaur, opened a new Dental Skills Centre at Milton Keynes Hospital NHS Foundation Trust in March.

The state-of-the-art facility in the postgraduate centre will provide a high quality training environment available to all those studying dentistry across the Thames Valley.

Funded by the Thames Valley and Wessex Dental School, now part of Health Education Thames Valley, it will provide hands-on training opportunities for dental foundation trainees during

their postgraduate training programme. It will also be used by other dental professions including dental nurses and therapists.

Helen Falcon, Postgraduate Dental Dean for Health Education Thames Valley, said: 'This fabulous facility is the culmination of a lot of hard work and real teamwork. With no dental teaching hospitals in the region, we have had to develop different sorts of facilities to allow trainees and clinicians to refine and develop their skills. This centre will benefit all dental professionals in the area.'



PANDAS LOVE SWEETIES TOO

Despite their bamboo-chomping diet, giant pandas possess functional sweet taste receptors and in tests, show a strong preference for some natural sweeteners, including fructose and sucrose.

Researchers at the Monell Chemical Senses Center in Philadelphia studied giant pandas as part of a long-term project focused on understanding how taste preferences and diet selection are shaped by taste receptor genes.¹

A previous study found that cats, which must eat meat in order to survive, had lost the ability to taste sweets due to a genetic defect that deactivates the sweet taste receptor.

Although giant pandas and cats belong to the same taxonomic order,

Carnivora, the giant pandas have a very different diet, as they feed almost exclusively on bamboo, a grass-like plant containing very small amounts of sugar. The researchers wondered whether giant pandas had also lost sweet taste perception, like cats.

Eight giant pandas in China were given two bowls of liquid, one containing water and one a solution of water mixed with one of six different natural sugars. All of the pandas preferred the sugar solutions to plain water, and this was especially evident for fructose and sucrose.

Using DNA collected from the giant pandas during routine health examinations, genes that code for the panda sweet taste receptor were isolated and then inserted into human host cells grown in culture. These cells responded vigorously to sugars; this step helped investigators confirm that pandas have a functional sweet taste receptor that underlies their ability to detect and respond to sugars.

1. Jiang P, Josue-Almqvist J, Li X *et al*. The bamboo-eating giant panda (*Ailuropoda melanoleuca*) has a sweet tooth: behavioral and molecular responses to compounds that taste sweet to humans. *PLoS One* 2014; **9**: e93043. DOI: 10.1371/journal.pone.0093043.

