I’m Doctor Chris Van Tulleken and this investigation is designed to help find the best diet for you. Rather than a ‘one size fits all’ approach to dieting, our experiments analyse our brains and our bodies to find the main factors behind why some of our volunteers put on weight. For some of us, our genes have a surprising and powerful effect as Doctor Giles Yeo and I found out when we went to the fair.

So the point is, I’d like to really test how you guys interact with the world and in particular what you look at.

And to do this Giles has brought with him and unusual pair of specs, eye tracking glasses. These record every tiny movement our volunteer’s eyes make as they scan the environment. And so track precisely what they’re looking at.

So I want you guys to put this on, wander around where your eyes will naturally actually go, okay? And for the ten minutes then we’ll be able to see.

Giles asks everyone to take exactly the same route around the fun park, but he doesn’t tell them the real goal of the experiment. All around them they see rides, hordes of people and of course food. Loads of food. And to up the ante, Giles has added some extra snack vendors and food signs.

The experiment’s over and the data is extracted from the glasses. Giles analyses the results to see if there’s a difference between what each dieting group looked at.

So Giles put us out of our misery, what was that all about? What are the results?

As I understand you guys had eaten already so you shouldn’t have been hungry.

No.

The important and interesting thing that we actually found, was that the constant cravers as a group, ok, and that’s Danielle and in particular actually Mo, you guys spent a whole lot of vast amount of your time looking at food and not just the quantity of food but the variety of food.

Being permanently hungry gives our constant cravers a greater drive to search out food but how are their genes making this happen in the first place?

For most people, when our fat stores are at a sufficient level, signals are sent to our brain to tell us we don’t need to eat. But scientists have discovered constant cravers have genes which disrupt the way these signals are received. They trick our brains into thinking the fat stores continually need to be replenished. The result? They want to eat the whole time.