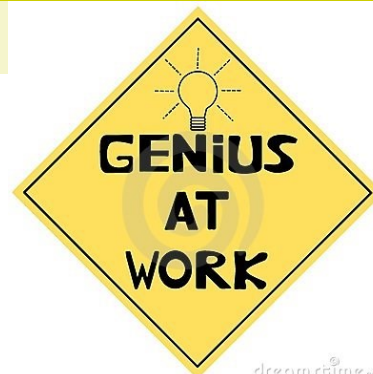




Genetics of Obesity Study

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GOOS Newsletter

Spring 2017

So much has been happening here in Cambridge that we really thought we should get another newsletter out to you all as soon as possible.

Where to begin?

The end of 2016 and the first few months of 2017 were rather manic for us all here.

Firstly, Professor Farooqi had to write several proposals for grant awards (funding) for continuation of our research. This involved her locking herself away for long periods of time in her office, which was fine, but when she did reappear, it usually meant lots of work for all of us in her Team! We will not know the outcome for her major grant award for some months but you can read about one of her successful bids for funding and how we propose to use it in her "News from the Professor."

Other very important news is that we are getting very close to the opening our new building. There was quite a lot of work in the planning and building phases (mainly for Elana and Professor Farooqi) but actually kitting it out and getting it operational has been (and still is) a very major project. All being well though, it is planned to be open by the end of May. If you come to see us in the future, this is where you will stay, a new, purpose built and we think rather beautiful building.

We have also been in discussions for the development of a children's website and will keep you updated as to its progress. Any contributions or ideas would be very welcome. If you want to get involved, email us via our website at info@goos.org.uk or call me on 01223 762634 (leave a message, I will always endeavour to get back to you)

On a completely different note, I wonder if any of you managed to watch the recent TV programme called "Obesity: How Prejudiced is the NHS?" It was presented by Professor Rachel Batterham, a collaborator of ours (the link is on our website although I'm not sure for how long). This also relates to some other news that you can read about over the page (Obesity Empowerment Network UK).

Keep looking at our website!

Julia

INSIDE THIS ISSUE

| | |
|----------------------------|---|
| News from the Professor .. | 2 |
| Obesity Advocacy..... | 2 |
| New Research Study..... | 3 |
| Contact Us..... | 4 |

News From The Professor

We have recently obtained new funding from the Botnar Foundation, a Swiss charity that supports research into the health of children, which will allow us to take forward a new area of research.

The question we are trying to address is: *"why do some children and young people with weight problems develop problems such as a high blood sugar, whilst other children do not?"*

We plan to address this question by studying a large number of children, some at high risk and some at low risk based on their blood tests. We will use state-of-the-art genetic tools and detailed tests of metabolism to see if we can identify patterns that distinguish the two groups.

Some of these tests will look at the liver which can become inflamed in some people with weight problems. Newer technologies allow us to get a really detailed picture of inflammation in the liver. We hope this will allow us to understand why these conditions develop and importantly predict problems before they occur. This information will also help us to identify people who may benefit from new treatments that are currently being given to adults in clinical trials.

Professor Farooqi



Obesity Empowerment Network UK

As well as the TV programme I mentioned, Professor Batterham has set up an obesity advocacy group for people affected by obesity—the "Obesity Empowerment Network UK-OEN UK." In researching her TV programme, Professor Batterham toured the UK and was shocked by the manner in which people struggling with their weight were treated by policy makers, healthcare professionals and the media.

One of the main aims of the group is to lobby for the proper provision of obesity services for children, adolescents and adults and to reduce weight-bias. Alongside other interested professionals, Professor Farooqi and I have been invited to be professional advisors to help address specific issues. It is hoped that the group will be user-led (that's you), focused on empowering children, young people and adults affected by overweight and obesity.

It is early days but there is a website and I would encourage you to please take a look at it (www.oen.org.uk).

Latest Research Highlights

New Project – The Effects of Cooling on Metabolism

We know that most people tend to regain weight after dieting and that a lot of our patients find that diet and exercise just doesn't work. With the help of volunteers, we have been looking at how the body responds to both severe calorie restriction (don't worry, it was just for a few days!) and indeed what happens when calories are eaten in excess.

In this new study, we want to see if some of our findings from restricting calories are also found when the body needs to protect itself from the cold, as we know that maintaining the body's temperature uses up a lot of energy and that this energy comes from the food we eat.



In this study we will be recruiting volunteers to come for two visits to our new Translational Research Facility. We will carefully control the amount of food they eat, and measure the amount of energy they burn up. We will also take regular blood samples to measure some very specific markers of metabolism. During one of the visits all of this will happen at normal room temperature, and then at the next visit, we will expose them to mild cold conditions using a special cooling suit.

We hope by comparing the results of these two visits we might gain some new insights into how the body deals with the energy deficit induced by cooling. We will also be able to compare our results to our previous studies on calorie restriction, to see if the body processes are the same.

We are looking forward to collaborating on this project with another research group, led by Professor Giovanna Mallucci, who are interested in understanding the brain changes that lead to dementia and looking at potential new treatments for this condition. They have shown that in mice, some of the early brain changes that are seen in dementia are prevented by cooling. We are interested in seeing if exposing humans to mild cold has a similar effect, and we will be testing this with specialised blood tests and by getting our volunteers to perform various memory tasks.

We will keep you posted as soon as we have any results!

Dr Fleur Talbot, Wellcome Trust Research Training Fellow



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