



Genetics of Obesity Study

March 2018

GOOS Newsletter

Spring 2018

We may have just had the worst week of weather for 5 years (so they tell us), but here in Cambridge, it will be remembered for another reason: the week we started the first Clinical Trial in the UK for the potential treatment of Leptin Receptor Deficiency. Fingers crossed everybody, this is ground breaking and hopefully will lead to more of our patients receiving the help they need. You can read about what this has meant to our patient and her battle with her weight as she has kindly written a piece for our website (www.goos.org.uk/patients-and-families/personal-experiences). I think many of you will recognise much from her story, so please keep looking at our website as we will use this to update you all on any new findings and of course more about potential treatments. It's happening folks!

As many of you know that come to visit us here in Cambridge, the more we can learn about a particular gene and its effects, the more we are able to piece together the bits of the puzzle that are missing: this is "research" and is what leads to the translation of findings to real treatments! So I would like to point you towards a particular study that we are highlighting in this newsletter (see Research Highlights on page 3). We need our MC4R patients to help us out here, as this is very specific to you. Some of you have already been involved but if you are interested in possibly taking part, please get in touch!

Julia



INSIDE THIS ISSUE

1. News from Julia
2. News from the Professor
3. Latest Research Highlights
4. Contact Us

News From The Professor

Over the last few months, there have been several exciting developments in our research. After many years of work, we now have two clinical trials running where we plan to give a medicine called Setmelanotide to people with genetic problems. For the research team, the start of the trial represents a major landmark. It takes many years to go from a scientific finding to a new medicine and we are really pleased to see this trial become a reality. Of course, there is a lot of work still to do, but we are excited about the opportunities this presents!

In other developments, we have been awarded a big grant by the Botnar Foundation, a Swiss charity that seeks to undertake projects that support the health of children. We will use these funds to start some new studies looking into the complications that can occur in some people with severe weight problems. Julia has done a huge amount of work to get this study off the ground and so was asked to come up with a name for the study. She decided on OSTRICH (**O**besity **S**trategies: **T**ranslational **R**esearch **I**nvolving **C**hildren) which fits the bill really well. Of course, our aim is to highlight the fact that when it comes to weight problems a lot of people tend to bury their heads in the sand, and think only about telling people to lose weight. We want to shine a light on the problems people face and try to understand why they occur. Only by doing research can we find new and more effective ways to help people. We will update the GOOS website with new information about the OSTRICH study once we are ready to start recruitment.



Another important initiative, we want to share with you relates to the issue of weight stigma and bias. Julia and I are both part of a new organisation called the Obesity Empowerment Network (www.oen.org.uk). This group aims to challenge some of the issues that lead to bias and stigma. For example they are challenging journalists about the ways in which they report topics relating to obesity (and the words and pictures they use). They are making representations to government about the need for better access to services and policy changes that can tackle stigma and bias. There is a lot of work to do but there seems to be real momentum behind this group. We will keep you updated on all these developments.

Prof Farooqi

Latest Research Highlights

Gastric emptying study

Some people who are overweight have a defect in a gene called MC4R, which makes them more likely to gain weight. This gene can influence how the body absorbs and processes food and we want to find out more about how this happens. In this study, we want to investigate whether something called "gastric emptying" may be different in people with and without a genetic cause of their weight problem.

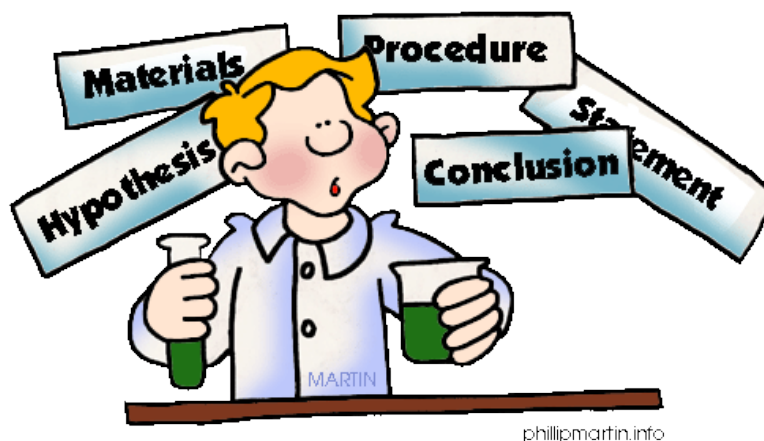
Gastric emptying is all about how well your stomach empties after a meal. In some people with a genetic cause of their weight problem we think this may happen very quickly and this may make them feel hungry again quite quickly even quite soon after a meal.

To better understand the role of gastric emptying, we have invited patients with a faulty MC4R gene and local volunteers without a known genetic cause of their weight problem to our new Translational Research Facility (TRF) for a one-day visit (for those travelling a long way, this can include a sleep over with us). Fortunately, it is possible to measure gastric emptying with a safe and non-invasive test called "gastric scintillation". This test involves eating some scrambled eggs, toast and jam and having a bit of patience (as it can take up to four hours for the stomach to empty). By adding a safe chemical to the scrambled eggs, we are able to trace the progress of the meal through the body with two cameras.

By comparing the results between the two groups (those with and those without MC4R deficiency) we hope to get a better understanding of whether gastric emptying plays a role in controlling body weight.

If you would like to know more about this study, please get in touch at info@goos.org.uk

Dr Eleonora Seelig, Clinical Fellow





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