



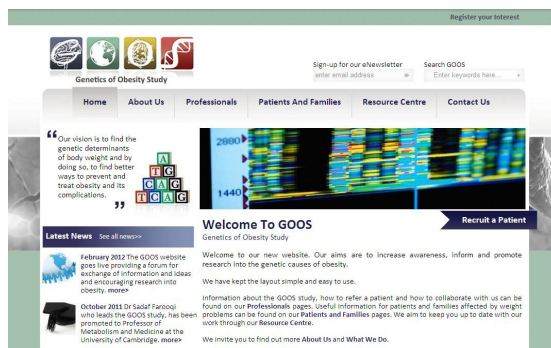
Genetics of Obesity Study

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# GOOS Newsletter- Summer 2012

## Welcome to Our Very First Newsletter!

We hope to make this a quarterly event to keep you up-to-date on our latest research, to let you know what we're doing, and how you can help us. You will be able to sign up for our newsletter at our new website, ([www.goos.org.uk](http://www.goos.org.uk)).



Our website was officially launched on 29th February 2012. After a few false starts and much hard work, we now have a site that can evolve into a tool for advancing and promoting research alongside offering support and information to our patients and families.

At the same time, we launched our new logo, which reflects the work we do and the original research study (GOOS) that Professor Farooqi began way back in 1998. As you know, our work is about looking for genetic causes of why some people put on weight more easily than others. Since we started this work, we have identified 8 different gene disorders and have over 4500 patients world-wide involved in our genetic studies.

For many years we have been aware of the need to communicate our research findings directly to our patients and their families and we hope that our website will go a long way towards helping us achieve our aims. So please have a look at our website, tell us what you think and tell us what you want!

You can let us know by registering your interest at [info@goos.org.uk](mailto:info@goos.org.uk).



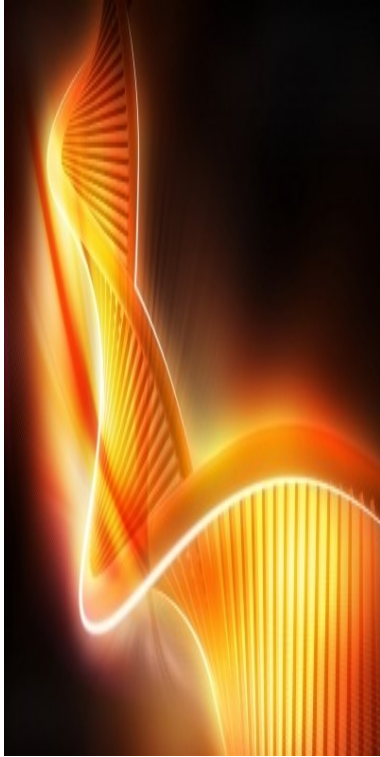
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### SPECIAL POINTS OF INTEREST

- Hormone changes in pregnancy
- Potential trial of treatment





## What Are We Doing to Find New Genes and Treatments?

Where are new treatments for weight problems going to come from?

First we have to know how the body controls weight and why things sometimes go wrong and cause weight problems for some of us.

One of the ways we do this is by looking for genes that influence weight gain. We can then use this information to help develop treatments.

This is a really exciting time for research into genes. Using the latest technologies, we can now check hundreds of genes in our patients at the same time. We use a sophisticated technology called "whole exome sequencing," which is leading to gene discovery in many medical conditions.

One of the major challenges we face is that this technology picks up a lot of genetic changes in every person, so trying to find the **key** gene that might

explain a person's weight problem can be very complicated.

Once we have a new gene to study, we need to look at the gene in parents and family members. We often contact families to invite them to Cambridge for investigation.

You can learn more about what happens if you come to Cambridge at our website ([www.goos.org.uk](http://www.goos.org.uk)).

Our next challenge is to work out how these genetic changes might stop a particular gene from working. This is done in our laboratory.

Once we find out how a gene works in cells and its effects on people themselves, we can begin to use this information to start developing treatments.

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*"This is a really exciting time for our research."*

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## How You Can Help Our Research

We have lots of different studies underway, and many more coming up!

We may look at why some people prefer certain foods and how differences in how people handle calories can cause them to gain weight.

We are also interested in what happens to our bodies when we eat certain foods. This may involve looking at a person's hormones or even looking at their brain!

We're always looking for more volunteers to help us with our studies. If you'd like to find out more about what we're doing right now and get involved, please contact us at [info@goos.org.uk](mailto:info@goos.org.uk).

### Hormone changes in pregnancy

In a new study, we want to see if a person's weight is influenced by hormones that change during pregnancy. We want to find out if some of these hormones interact with genes to influence how much weight a child puts on as they grow.

### Potential trial of treatment

One very exciting study we hope to begin in late 2012 will be a trial treatment for MC4R deficiency, a common cause of weight problems in many of our patients. We are working with a pharmaceutical company in America, and if the treatment proves safe, we would like to offer MC4R patients the opportunity to take part in a trial.

We will keep you updated on this and all our other studies in future newsletters and on our website.

## A Big Thank You to Abigail!

In February, one of our young patients held a cake stall at her mum's workplace to raise funds for our research. It was Abigail's own idea and she not only wanted to raise money, but let people know about the genetic condition that is the cause of her weight problems.

Abigail came to see us here in Cambridge way back in 2006, as we had found that one of her genes was not working properly. This gene is called melanocortin-4-receptor (MC4R).

MC4R is the commonest cause of severe weight problems in children (and adults), and we have seen many families here in Cambridge with this condition, and with their help we have been able to learn a lot about this gene.

Thank you, Abigail! With the money you've raised, we hope to help other children that are referred to us, and find a suitable treatment for their weight problems.

If you would like to make a donation to support our work, please send a cheque made out to University of Cambridge RG Account to Prof S Farooqi, Metabolic Research Laboratories, Level 4, Institute of Metabolic Science, Box 289, Addenbrooke's Hospital, Cambridge, CB2 0QQ



Let us know what you want to see on our website and in our newsletters.

Visit GOOS at [www.goos.org.uk](http://www.goos.org.uk) to meet our team and learn more about our work.

Or email us at [info@goos.org.uk](mailto:info@goos.org.uk) to stay up-to-date with what we're doing and how you can get involved.

If you would like to know more about our new studies, contact us at [info@goos.org.uk](mailto:info@goos.org.uk)



Genetics of Obesity Study

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