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- ★ Interview with a Gemini Team member
- ★ Tiny Tastes

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## The Past and Future of Gemini

### The future of Gemini

Your twins will be five next year and the Gemini study is approaching the end of its original 5-year funding by Cancer Research UK. Many of you have asked us if the study will continue after next year, and we are happy to say that we are planning to carry on. We are busy applying for future funding, and hope to be successful.

### The success of Gemini so far

The Gemini study has been very successful so far. We have published 6 research papers in international science journals (see [www.gemistudy.co.uk](http://www.gemistudy.co.uk) for more details). 10 more papers are currently being considered, and should be published in the near future.

Gemini research findings have been presented by team members at several national and international conferences and are always well received. We have also won awards—the Association for the Study of Obesity awarded Dr Clare Llewellyn their young investigator for 2011 for her PhD research on Gemini, and Dr Ellen van Jaarsveld's research presentation won first prize at the European Conference on Obesity in Istanbul in May 2011.

Of course, none of this would be possible without the continued support of all families participating in Gemini. One of the important things is that over 98% of the original 2402 Gemini families are still involved. So THANK YOU to all of you for your support and contributions to Gemini.

Dr Ellen van Jaarsveld, Gemini study co-ordinator (now on maternity leave expecting her second baby)

### Gemini findings from 2011: appetite and infant growth

In the first and second questionnaires we asked you about your twins' appetites. For example we asked you to respond to statements such as "my baby enjoyed feeding time" and "given the chance my baby would always be feeding". Using the answers from all the appetite questions, we have distinguished babies with smaller and bigger appetites during the first few months of life, and later at 15 months. You have also continued to provide us with information on the twins' growth.

The first question we tried to answer was: "Do babies with bigger appetites grow faster, or do heavier babies develop bigger appetites?" The Gemini findings suggest that babies with bigger appetites at 3 months of age grow faster in the following 12 months! These findings are important as it helps us understand why some babies grow more slowly or more quickly during their first year of life.

The second question we tackled was: "Do genes influence weight because they influence appetite?" Twins are important for finding the answer to this question. We found that many of the genes that influence appetite at 3 months of age, also influence weight. Finding that the same genes influence both appetite and weight suggests that some babies inherit genes that make them hungrier, and so they grow faster as a result.

Dr. Clare Llewellyn and Dr. Ellen van Jaarsveld

*Gemini has been very successful in providing insights into the genetic and environmental influences on early child development.*

# Interview with a Member of the Gemini Team

*Dr Abigail Fisher is a postdoctoral researcher working on the Gemini study. Her main research interests are sleep and physical activity levels in young children. Abi talks about some recent work into sleep in infancy.*

## How did you become involved in Gemini?

I completed a PhD in Child Health & Developmental Medicine at Glasgow University and worked on several research projects involving physical activity in young children. I am also very interested in the importance of sleep for children's health. I have been lucky enough to speak to some Gemini families during telephone interviews (see page 4) and it is clear that parents really care about their children's sleep and love to talk about the differences they see in their twins. It is fascinating to me that even when children share a bedroom, their sleep patterns can be very different. If you haven't been called yet, one of our fantastic interview team (Laura, Amy or Stephanie) will be in touch very soon.

## Why is the Gemini study useful for studying sleep?

I am interested in understanding the genetic and environmental influences on sleep in children. Gemini provides the perfect opportunity to explore these, because the children are twins. We have a Gemini paper coming out in a top paediatric medical journal demonstrating that the family environment shared by two twins has a very strong impact on their sleep. We also showed that genes also play a role. As soon as this paper is published we will update the website.

We are now hoping to use the fabulous Gemini twins to find out which actual genes and which aspects of the family environment influence children's sleep. A new member of our team (Laura) used Gemini for her Health Psychology Masters degree research project; she looked at how sleep relates to weight. Laura got a distinction for her project and we were delighted that she wanted to continue working with us after she graduated. She hopes to do a PhD in the future and will help take the sleep research in Gemini forward. Gemini is an extremely important study, not only for the advancement of science, but also for the support and training of future researchers.

## Why is it important to study sleep in the Gemini study?

Although we do not know the exact function of sleep in humans, we do know that it is important for child health and development. We also know, through our interviews, that parents of children who do not sleep well worry about it. It is wonderful to be able to use the information provided by Gemini families to help parents encourage a good night's sleep for their children (and therefore themselves!).

Dr Abi Fisher



### Bottom row from left to right:

Professor Jane Wardle—Principal Investigator  
Dr Abi Fisher—Research Associate  
Alison Fildes—PhD student  
Laura McDonald—Research Assistant

### Top row from left to right:

Dr Clare Llewellyn—Research Associate  
Dr Ellen van Jaarsveld—Study Coordinator  
Stephanie Schrempf—PhD student  
Amy Ronaldson—Research Assistant

## Children like what they know, and eat what they like



Enjoying their carrots: twins Oscar and Leon

The Gemini Tiny Tastes study is all about encouraging children to try new foods, and eat more vegetables, by making it fun. Babies and very young children are usually open to lots of tastes and willing to try new foods but around the age of two everything can change. Some children suddenly become much fussier. They start rejecting foods they may have happily eaten before and can become suspicious of new foods. The foods children most commonly reject are vegetables and this can be a very difficult problem for parents to overcome.

Vegetables are a rich source of vitamins and an essential part of a healthy diet so it is important to get children to eat more of them. Here at UCL we have designed a special Tiny Tastes game to help parents encourage their children to eat more vegetables and get the best possible start in life.

"This study was an eye-opener. My twins are now so much more positive about vegetables"

We have asked the Gemini families to help us by completing a study which is looking at how successful the Tiny Tastes game is in getting children to eat—and even enjoy—their vegetables. An earlier study has found that Tiny Tastes is successful when a researcher visits families in their homes and explains all about how it works. In Gemini, we wanted to see how families got on with trying Tiny Tastes themselves using the Tiny Tastes packs. So far, we have been delighted with the positive comments we have received from some of the Gemini parents who have already played Tiny Tastes with their twins:

"They are both much better at trying, tasting and eating their vegetables since Tiny Tastes"

Thank you to all the Gemini families for your dedication to the Tiny Tastes study and we will keep you informed about the results. If you haven't sent your Tiny Tastes sheets back to us yet or if you would like to take part and haven't received a pack, there is still time so please let us know. If the results from the Gemini families show that Tiny Tastes works when families do it by themselves, we hope to make it available to many more families in the future.



Alison Fildes, PhD student

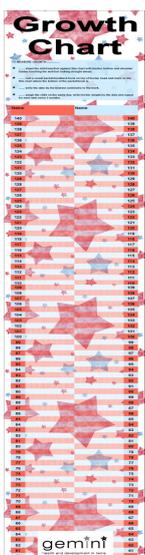
# Home Environment Interview Update

One of the main research interests in Gemini is how the family environment influences growth and development, and which aspects of the family home environment are most important. To answer these questions we have been carrying out interviews with Gemini families over the telephone. We have interviewed over 800 families so far. Talking to families has been a fantastic help to our research and it has been a pleasure to hear updates about your twins. Thank you to all families who have been involved in this part of the study, we really appreciate your help. If you haven't been contacted yet we look forward to speaking to you in the very near future! [Please provide us with an up-to-date contact number](#) if you haven't done so already. You can contact us about the interviews by telephone on [020 7679 1723](tel:02076791723), by email at [gemini@ucl.ac.uk](mailto:gemini@ucl.ac.uk) or write to us at the address provided on the front page of the newsletter.

## Congratulations to all the Gemini twins who have started school!



## Growth Reminder



Thank you all for continuing to weigh your twins and measure their heights, and for sending us the results. We really appreciate you taking the time to provide us with measurements as it is extremely important for our study. It has been 3 months since the last growth reminder so it may be time for you to measure your twins again. You can write these measurements on the Gemini growth chart and update us with these measurements when we next contact you. Alternatively, you can use our online form to submit measurements: [www.geministudy.co.uk/gemweight](http://www.geministudy.co.uk/gemweight) or email them to [gemini@ucl.ac.uk](mailto:gemini@ucl.ac.uk). If you have found it hard to submit measurements every 3 months, please remember that providing measurements every 6 months, or any measurements at all, is still very helpful for our study. If your Gemini weighing scales need to be replaced, please don't hesitate to contact us and we will happily send you some more. In January we will be providing all Gemini families with a new growth chart. This time, the chart will start at 90cm instead of 60cm, so carefully measure 90cm before attaching it to the wall.



Season's greetings from Gemini

