

# DID YOU KNOW?

We are running a series of free talks about our research in Bristol in 2016. Keep an eye on our website and social media channels for details.



Children of the 90s scientists have been named by Thomson Reuters as among 'the world's most influential scientific minds' for the second year in a row.



We're now on Instagram! Share your pics at [instagram.com/children\\_of\\_the\\_90s/](https://www.instagram.com/children_of_the_90s/)

We have been described by the BBC's Adam Rutherford as 'the gold standard of transgenerational research'. In other words, we're amazing!



Rex, our Shaun the Sheep sculpture

We are delighted that the sale of our Shaun the Sheep sculpture has helped contribute to the amazing £1 million raised by the Grand Appeal for Bristol Children's Hospital.

97% of participants have at least one social media account.

More than a third of participants access at least one social media account more than 10 times a day.

Six in 10 participants access one social media account up to 10 times a day.



Participants' favourite social media sites are Facebook (71%), Whatsapp (13%) and Instagram (7%).

You can download this newsletter as a pdf from our website at [www.childrenofthe90s.ac.uk/newsletters-leaflets](http://www.childrenofthe90s.ac.uk/newsletters-leaflets). If you would like it in another format (audio, braille, large print or another language), please let us know.



HRH the Countess of Wessex, patron of the Cleft Collective, visiting their gene bank in our labs

Our state-of-the-art labs have been renamed the Bristol Bioresource Laboratories to reflect the fact that they process, analyse and house biological and genetic samples for studies other than Children of the 90s, including the Healing Foundation's Cleft Collective, the world's largest research project into cleft lip and palate.

# ME FAMILY FRIENDSHIP FOCUS FUTURE UNIQUE MOTHER FATHER YOUR NEWS... GENERATIONS KNOWLEDGE IMPORTANT



2016-2017

## HELLO!

Welcome to our latest newsletter.



Our Focus@24+ clinic is in full swing and we have seen over 1,500 participants already! Their feedback is overwhelmingly positive and it's great to hear that so many enjoy doing the various tests. It is humbling that so many participants continue to give their time to benefit future generations – it makes me very proud to work for Children of the 90s.

These early adult years are crucial to later health and it's very important that as many participants as possible take part in Focus@24+. We will be running the clinic until mid-2017, so please come along if you haven't already. We offer appointments at times to suit you, including weekends and bank holidays, to make it as easy as possible for you to take part.

Children of the 90s continues to make world-leading scientific discoveries and last year five of our scientists were listed in the top 1% of 'the world's most influential scientific minds'. In 2015 we published 189 scientific papers on subjects including the genetics of eczema, dyslexia and vision, 'goth' subculture and depression, and barriers to higher education among disadvantaged groups.

Of course, none of this would be possible without you and on behalf of the Children of the 90s team I would like to thank you for your incredible commitment and dedication. You really are very special!

*L.C. Molloy*

Lynn Molloy, executive director of Children of the 90s

## OUR LATEST DISCOVERIES

### DRINKING IN FILMS

We've discovered that the more teenagers see alcohol being drunk in films, the more likely they are to try it and to develop drinking problems.



### WHAT WE DID

- When participants were 15, we asked them whether they had seen 50 films, randomly selected from a list of 366 popular ones. We also asked about their alcohol use.
- We recorded the amount of time (in seconds) that alcohol was seen in each film.
- We analysed information about the child's behaviour which we had gathered when they were seven and 13.
- We compared all this information with what the parents of participants told us about their own alcohol use when their children were 12.
- We also compared it with other information about the parents' lives from pregnancy onwards.

### VIDEO GAMES

Contrary to popular opinion, we've found that playing video games rarely leads to bad behaviour.



### WHAT WE DID

- We looked at what participants told us about their video game use in a questionnaire when they were aged eight or nine.
- We compared this with the results of an interview we did with participants when they were aged 15 about behaviour and depression.

### CHRONIC FATIGUE SYNDROME

We've found that 1 in 50 participants had chronic fatigue syndrome lasting more than six months when they were 16. They missed, on average, more than half a day of school every week.



### WHAT WE DID

- We looked at information participants and their parents gave us about tiredness and energy in questionnaires when they were aged 16.
- We reviewed what parents told us about their family situation and living conditions when their children were aged 8-10.
- We matched this up with school absences recorded during year 11 on the National Pupil Database. This was possible thanks to the large number of participants who've allowed us to link to their school records.

## 25<sup>TH</sup> ANNIVERSARY

It's been 25 years since Jean Golding started Children of the 90s. Since then your data has helped us publish more than 1,300 research papers that have informed and changed policy and practice around the world.

To celebrate our anniversary we are showcasing 25 fascinating objects – one from each year of Children of the 90s – in a virtual Museum of Life, which you can explore at:



Image courtesy of Chris Bahn, Bristol Museums and Galleries

[www.childrenofthe90s.ac.uk/25/](http://www.childrenofthe90s.ac.uk/25/)

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DETAILS CHANGED?



Scan this QR code to update  
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[www.dirtydesign.co.uk](http://www.dirtydesign.co.uk) **dirty design**



Avon Longitudinal Study  
of Parents and Children





YOUNG PEOPLE

We started Focus@24+ in June 2015. Since then more than 1,500 participants have been to see us and told us how much they enjoy the new tests and checks, like the heart monitor and the 3D body scan. Focus@24+ will run until autumn 2017, so there's still time to come and see us if you haven't been already. We'd love to see lots more of you!

# FOCUS@24+



## WHAT YOU SAY YOU LIKE ABOUT FOCUS@24+

All the new tech – like the 3D body scan – was really cool.

The staff were so friendly and helpful. They even got gluten-free + dairy-free food for me so I could have lunch. Way more effort than I ever expected. Well done!

New tests: heart scan because I could see it & hear it and also full-body scan as I could see how I have grown.

Free food is great, but I genuinely really enjoyed doing the psychological stuff – love those little quizzes.

According to completed satisfaction surveys, a whopping of participants who have been to Focus@24+ agree that:

99%

- the information we sent them before their visit was easy to understand
- it was easy to book an appointment
- any questions they had were answered satisfactorily throughout the visit
- all the staff they met were knowledgeable and professional

If you would like to visit us on a particular date but can't see it on our online booking system, please ring us and we'll arrange it for you.



## GET IN TOUCH

If you haven't received your invitation to Focus@24+ yet, don't worry. We're sending invitations out in batches between now and autumn 2017. However, please let us know if any of your details have changed so we can send your invitation to the right address!

- [www.childrenofthe90s.ac.uk/update-your-details/](http://www.childrenofthe90s.ac.uk/update-your-details/)
- Complete and return the enclosed **Get in Touch** form
- 0117 331 0010
- [info@childrenofthe90s.ac.uk](mailto:info@childrenofthe90s.ac.uk)

Participants have travelled from all over the world – as well as Bristol – to see us.

We'll give you a £40 shopping voucher to say thank you.

If you bring a friend who is also in Children of the 90s, you'll each receive an extra £10 voucher.

We'll help with your travel expenses, book local taxis and arrange overnight accommodation for you if you need us to.

We have free on-site parking.

Everything you need to know about your visit is in this short video: [www.childrenofthe90s.ac.uk/focus24/](http://www.childrenofthe90s.ac.uk/focus24/)

## DID YOU KNOW?

If you work, we can give you a letter for your employer asking them to give you a day's paid leave to attend.

We'd love to see you even if you haven't been to see us for ages – or ever before.

This is our first full Focus clinic since Focus@17+.

Once you receive your invitation letter you can book your appointment online at [www.childrenofthe90s.ac.uk/focus24/](http://www.childrenofthe90s.ac.uk/focus24/)

## FUN FOCUS FACTS

Based on the 1,500 participants who have attended Focus@24+ already, we've discovered that:

6 in 10 are in a relationship

7 in 10 are employed

The average height is 170.6cm  
2.1 centimetres more than the national average

2 in 10 are in education

So far, we have collected 25 litres of blood, that's about a third of a bath tub

1 in 20 never drink alcohol

1 in 10 smoke every day - that's lower than the national average for 25-year-olds

1 in 20 vape or use e-cigarettes

9 in 10 have a healthy systolic (active) blood pressure of between 90 and 140 mmHg (millimetres of mercury)



During the lung test, participants breathe out enough air to fill a car tyre and can breathe out more than they could at 17

# FOCUS ON...

Georgina (right), sharing a joke with Lynn Molloy, the executive director of Children of the 90s



## GEORGINA

On 3 June 2015, we started Focus@24+ and Georgina was the first participant through the door. We took the opportunity to ask her why she decided to attend Focus@24+.

I enjoy taking part in Children of the 90s because I know that all the tests are going into research and this will hopefully help future generations. I also keep going as the staff are all very friendly and appreciative and make you feel very welcome when you are around. It's also interesting finding out about all the tests and seeing some of the results from the bone and body scans.

Alyce (front and centre) with members of the CO90s team



## ALYCE

On 19 February 2016, we welcomed our 1,000th Focus@24+ visitor – Alyce. After celebrating with tea and cake, we chatted to her for the newsletter.

**Do you like being part of Children of the 90s?**  
Yes! It's amazing knowing how much has been learned from all of us!

**Why do you think it is important to take part?**

So many important discoveries that can help so many people can still be made.

**What did you enjoy most at Focus@24+?**

Everyone was so lovely and helpful, it was great to see all the scans and the tea was awesome!

## EMMA

**What do you like about Children of the 90s?**

Firstly, it's great to be able to be part of such a respected study which has found out so much useful information that has changed childhood health and it really makes me feel like I've helped even in a small way. Secondly, it's fun and I've always enjoyed taking part!

**Best thing about Focus@24+?**

The best parts were the memory and computer tests as I was next to Sam and I could hear him complaining. His memory is shocking. I noticed he hasn't mentioned them in his answers so he's probably forgotten he did them!

## FOCUS ON... SAM AND EMMA

Earlier this year, Children of the 90s participants Sam and Emma were featured in a national newspaper after a photographer spotted Sam proposing to Emma in Prior Park in Bath.

The engaged couple are so in love, they even came to Focus@24+ together! We caught up with them during their visit.



Emma and Sam during their romantic visit to Focus@24+!

## SAM

**Why is it important to take part after all these years?**

After seeing the advancements they have made over the years I would never wish to stop being a part of Children of the 90s. The longer we stay involved the more they can learn from us as they have followed us from childhood right up to adulthood. I will be bringing our children along one day and encouraging other family members whose information may benefit them. Hopefully having children born from two Children of the 90s participants may greatly benefit the research.

**Best part of Focus@24+?**

Personally I really enjoyed the body scans as unless you have a medical condition it is not something you will ever have access to. The 3D body scan was especially interesting despite the American voice throughout!

# THANK YOU!

As well as Focus@24+ we do lots of other research in Children of the 90s all the time. A big THANK YOU to everyone who's helped us with our research over the last year. Here's what we've found out ...



## MEMORY

### WHAT WE ALREADY KNOW

We all have DNA in our cells, which is made up of genes. One gene called APOE makes a protein which helps to repair damaged nerves. There are three different types of APOE. The ε4 type, found in 15 per cent of people, has been linked to differences in thinking and memory in later life. The reasons for this are not well understood.

### WHAT PARTICIPANTS DID

A series of difficult memory tasks.

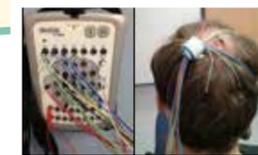
### WHAT WE DID

We tried to find out if the particular type of APOE gene a participant has makes any difference to their thinking and memory.

### WHAT WE FOUND OUT

People with the ε4 gene reported more memory problems but there was no difference in their performance in memory tests. To our surprise, participants with the ε2 gene, which protects against dementia, performed noticeably better on some of the memory tests.

## GENES AND SLEEP



Getting ready for bed!

### WHAT WE ALREADY KNOW

Different parts of our brain communicate with one another as we gather information during the day. Overnight, our brain files away our memories. Evidence suggests that this process varies naturally in each of us depending on what version of a particular gene we have.

### WHAT PARTICIPANTS DID

Spent two nights in a special sleep laboratory. Before they went to sleep, we attached a number of sensors to their heads to record their brain activity, eye movements and muscle activity. We also measured their heart rate.

### WHAT WE DID

We looked at different versions of a particular gene while participants were asleep to see how it affects their brain activity.

### WHAT WE HOPE TO FIND OUT

By understanding how genes affect the brain and sleeping patterns in healthy people, we hope scientists will be able to develop new treatments for sick people.

## SELF-HARM

### WHAT WE ALREADY KNOW

Lots of people self-harm for a variety of reasons.

### WHAT PARTICIPANTS DID

Completed a questionnaire about self-harm when they were 16.

### WHAT WE DID

For participants who have given us consent to access their medical records, we compared their questionnaire answers with their hospital attendance records.

### WHAT WE FOUND OUT

- At least one in five participants has self-harmed.
- Some participants who were treated in hospital for self-harm did not report it in their questionnaire. There are lots of different reasons for this.
- Participants who didn't complete a questionnaire were more likely to have been to hospital.
- Having permission from participants to see their medical records helps us build up a really clear picture about self-harm.
- The more information we have from different sources – like clinics, questionnaires and official records – the clearer the picture becomes.

## HOW WE USE YOUR OFFICIAL RECORDS

If you'd like to find out more about how we link to your official records (we call this data linkage), go to [www.childrenofthe90s.ac.uk/young-people/](http://www.childrenofthe90s.ac.uk/young-people/) then scroll to the bottom of the page.

If you don't want us to use your records in this way, please just let us know by contacting us by phone, email, text or post. You'll find all our contact details on the back page of this newsletter.

### REMEMBER:

Everything you tell us is completely confidential and anonymous. We don't know which individuals self-harm or have been to hospital, just the number in Children of the 90s as a whole.



If you'd like to find out more about the research we are doing on genes, you can download an information leaflet from our website [www.childrenofthe90s.ac.uk/newsletters-leaflets](http://www.childrenofthe90s.ac.uk/newsletters-leaflets). Or get in touch and we'll post one to you.



Have you completed your latest questionnaire? More than 4,200 participants have done so already but it's not too late to complete yours! Complete it online at [childrenofthe90s.ac.uk/questionnaires](http://childrenofthe90s.ac.uk/questionnaires) and we'll send you a £10 voucher as a thank you. Three lucky participants have also won an iPad Air 2 in our prize draw for completing theirs.



iPad winners Naomi (left) and Millie (right)



**COCO90S\***

\*Children of the Children of the 90s

# OUR 1,000<sup>TH</sup> COCO90s VISITOR!

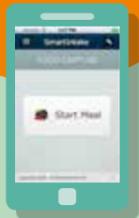
We have seen lots of participants during their pregnancies already and are enjoying watching their children grow and develop at each visit. In January 2016 we saw Lance (pictured above) for his 36-month visit. This was his 4th visit since his mum enrolled him when he was six months old and also our 1,000th COCO90s visit since we started in July 2012.



Lance and his mum, Zoe

## WHAT'S NEW?

To better understand how a woman gains weight during pregnancy and how this can affect her child, we are testing two new ways of recording what pregnant participants eat using a smartphone app and an online food diary.



Later this year, we're going to use head cameras and iPad apps to see how parents and their children communicate with one another.



We're planning to use a 'smart dummy' to see if using a dummy affects speech and language development.



We'll soon be doing ultrasound and MRI scans during pregnancy to figure out how much of pregnancy weight gain is due to the baby getting bigger and when in pregnancy this happens.



We are using a monitor to check glucose (sugar) levels in the body. This shows us how the body processes sugar changes both during and after pregnancy.



We plan to use personal sensors to see how air pollution affects a child's health.

## COFFEE MORNINGS

Did you know we run COCO90s coffee mornings four times a year? It's our way of saying thank you to you and your chance to meet other COCO90s parents and parents-to-be. There's free parking, free food and drinks, craft activities, toys, and space for the kids. Keep an eye on our Facebook page and your email for more information. We would love to see you at the next one!



## FUN FACTS

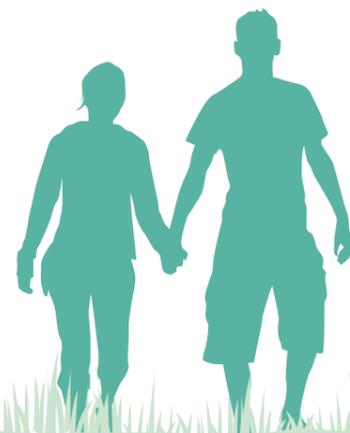
So far, we've seen

**400** children

with

**34**

babies on the way!



Over **356** participants

and

**140**

of their partners

have enrolled their children in COCO90s.

More than **750**

Children of the 90s participants are parents and together they have over 900 children.

We have seen

**189**

mothers-to-be

at least once during pregnancy and have collected nearly 100 placentas and blood samples from umbilical cord.

## MEET THE TEAM



KATE



JAYNE



JESS



CLAIRE



SUSAN



SHEILA

## PITTER PATTER

Are you...

- pregnant?
- already enrolled in COCO90s and expecting your second, third or fourth child?
- already a parent?

Then please get in touch and let us know. We are interested in all your children and it is never too late to be part of COCO90s.

To find out more, please contact our friendly COCO90s team by texting COCO90NL, your name and date of birth to 07772 102649 and we will send you an information pack.