

Under the Microscope



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Kennedy, age 13

Paediatric Gastroenterology Research Team newsletter
Addenbrooke's Hospital, Cambridge University Hospitals NHS Trust

Issue 11 - July 2025

HELLO!

Welcome to issue 11 of our newsletter!

It's been a super busy few months for our team! Some of us went all the way to ESPGHAN in Helsinki, Finland, a special meeting where people from all over the world come together to share ideas about IBD, how we can understand it better, how to treat it, and how to support children and families living with it.



We held our second IBD Family day and absolutely loved seeing so many of you there. You can read more about it later in this issue, and well done again to our brilliant drawing competition winners!

On the 20th June, we celebrated Red4Research day, a day where we shout loud and proud about the amazing work being done in paediatric research, and say a huge THANK YOU to all the families who help make that work possible.



Our lab team also had an exciting trip to Budapest for their lab retreat, and while we were there, we explored the city by hunting down some tiny Mihail Kolodko mini sculptures. You might even recognise the characters in the photos.

And last but not least, we were part of the East of England Study Day, where teams from different hospitals came together to share ideas and make sure we're doing the very best for all of you. There's lots more to discover inside, so read on!



Rainbow milk!

You need:

- Whole milk (enough to cover the bottom of a shallow dish)
- Food colouring (several different colours)
- Washing up liquid
- A cotton bud
- A shallow dish or plate

Method:

1. Pour enough milk into the shallow dish to cover the bottom
2. Add a few drops of different food colouring spaced out around the milk's surface
3. Dip a cotton bud into the washing up liquid
4. Gently touch the soapy end of the cotton bud to the centre of the milk
5. Watch the colours swirl and dance like a rainbow!

Cheesy science joke!



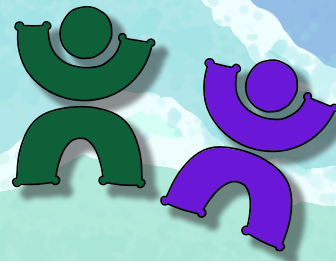
Knock knock.
Who's there?
Lettuce.
Lettuce who?

Lettuce experiment and find out!

Why does this happen?

The washing up liquid breaks down the fat in the milk, causing the food colouring to move and swirl as the soap spreads.

Meet our team...



Scan here to see all our newsletters!

'I love taking selfies! My phone probably thinks I'm her only friend'

'I'm not a fan of rainy days, especially when it ruins my hairdo!'



'When I'm upset or stressed I get a haircut - it's my weird little ritual!'

Fariba

Hi, I'm Fariba. I work as a research assistant with an amazing team of scientists who are trying to better understand inflammatory bowel disease (IBD) and find new ways to treat it. One of the coolest parts of my job is growing organoids, tiny mini-intestines made from patient biopsies. Honestly, I kind of think of them as my little babies. Like any good parent, I make sure each one has exactly what it needs: the perfect conditions, the right nutrients, and plenty of attention. I check on them every day, and sometimes I even sing to them (yes, really, they get lullabies!) to help them grow. I carefully track every bit of the growth, like a proud parent recording the milestones. Watching these tiny structures grow and change never gets old. It's a small part of a much bigger mission but all tiny organoids hold hope for new treatments, and that makes every moment worth it.

In my free time, I love cooking for family and friends, heading out for walks when the weather is warm and sunny. These simple moments that recharge me to give my best to the important work we do in the lab.

Anna

Hi, I'm Anna. My job is to collect and organise all the facts and numbers about patients, things like test results, treatments, and doctor notes using a special computer system called REDCap. It's a bit like building a giant puzzle from lots of little pieces, and I make sure everything fits just right. Most of the information comes from hospital computers and letters from doctors, and I double-check it all so that the scientists and doctors can do their jobs properly. It's super important, because getting the details right helps them find new ways to help people feel better.

Science has always been a big part of my life, even at home! My husband's a scientist too, so we talk about science over dinner (sometimes more than we talk about what's on TV!). During the COVID pandemic, I really saw how powerful research can be. Scientists all over the world worked together to help people, and it made me proud to be part of something that can truly change lives. That's why I'm excited to work on a big study called TRIPP which is helping both children and adults with IBD. I love knowing that what I do helps people. Even though I don't wear a lab coat or see patients every day, the work I do behind the scenes helps doctors and researchers make smart, safe decisions.

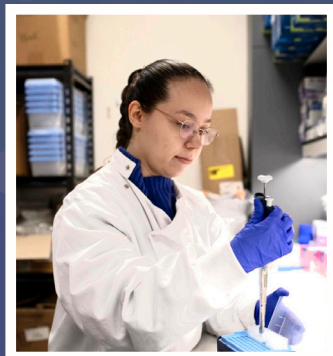
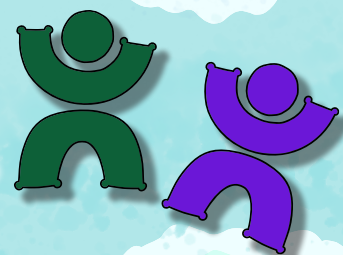
I love gardening! I grow lots of fruits and veggies, especially berries, pears, and way too many tomatoes. I also love taking little bits of plants and growing them into brand new ones. It's peaceful, and I love seeing things grow.



I'm a hobby breeder of Siamese cats. I have three at home, though only one is having kittens right now. People always ask how I give the kittens away, but I know they'll make their new families really happy. Siamese cats can live for over 20 years, they're like furry best friends!

Our research...

(...and interesting research other teams are doing!)



This is Ellie...

You might remember we met her in issue 3 back in November 2022 when she first joined the lab!

Ellie is now at the end of her PhD and we've interviewed her to find out about the work she has done...

Can you introduce yourself?

Hi! I'm Ellie, and I am just finishing my big research project called a PhD, where I studied how our guts work.

What do you love the most about working in research?

What I love most about working in research is how exciting and interesting it is. I get to work with people from all over the world to find new ways to answer important questions. The children and families who take part in research are really important, they help us learn what it's like to live with IBD every day. I hope the work I do can help make life better for children with IBD in the future.

Can you tell us what your research is about?

I have studied how our gut works, especially when people have inflammatory bowel disease, or IBD.

To study this, I used tiny, tiny models of the gut called organoids. These organoids are like little mini guts that we grow from special cells taken from patients. Each organoid is a little different because it comes from a different person, so it helps us see how IBD works in different people.

One important thing I looked at is something called MHC-II. Imagine your body is like a castle, and inside are tiny soldiers called the immune system that protect you from germs. MHC-II is like a special flag that the cells in your gut hold up to show the soldiers little clues, pieces of proteins so the soldiers know if there is something wrong and if they need to protect you.

In healthy people, this MHC-II flag is mostly low or not seen in parts of the gut. But in people with IBD, these flags appear more often, especially in the big part of the gut, and this might cause the soldiers to get too active and make the gut inflamed, which means sore and swollen.

By studying these changes, I hope my work will help doctors understand IBD better and find new ways to help people feel better in the future.

goodbye mary



As most of you will know by now, next month we will be saying goodbye to a very special member of the clinical team.

Mary, one of our wonderful IBD nurses, is retiring from the NHS after almost 38 years service. She has been an invaluable support to so many young people and families over the past 16 years at Addenbrooke's hospital, and will be sorely missed by many.

We will work hard to ensure you continue to receive the highest standard of care, but we ask that you bear with us throughout this period of change whilst we appoint the best possible replacement.

We will let you know when the new team member is due to start.

Mary, good luck with your next adventure!

Family day!



We thought it would be more fun to hear about the family day from one of you! So we asked Thomas (age 11)...

How was the Family day for you?

'For me it was exciting, and overall a brilliant fun day. I went with my Mum and Dad, for the second year running. I really enjoyed catching up with friends that I have met before at the other fun days. And meeting lots of new people.'

On the day my Mum went to all of the talks, and told me about them afterwards, as I didn't really want to go in. I stayed with my Dad, and friends, playing boardgames, getting tattoos, and chatting to lots of people.

I enjoyed doing the drawing competition - I drew Dr Matt as a bodybuilder!

And I especially loved being in with Seb, recording the videos.

The opening of the Cambridge centre for children gut health by Dr Matt and Holly, was pretty cool. As was Mary receiving good wishes, and gifts for her upcoming retirement.

Everyone put in so much time, and effort, this year to make it so special for us all. It really does mean so much for us to be able to come to the hospital and have fun, not just for appointments and treatments. And to get the opportunity to meet others just like us.

A really nice finish to the day was everyone receiving a fun grass head to grow at home. I can't wait to see what next year has to offer!





Our 'Draw the Team' competition took on a new twist this year - draw a member of the team in the career they could have chosen if they weren't a nurse or doctor! It was hard to choose our three talented winners. Here are their winning entries (and we've included more of our favourites too!)

Winner!
Under 10's

Winner!
10 - 16's

Winner!
Grown ups



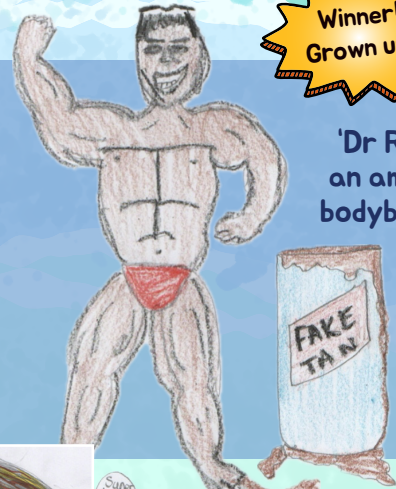
'Anna as a firefighter'

By Jan, age 9



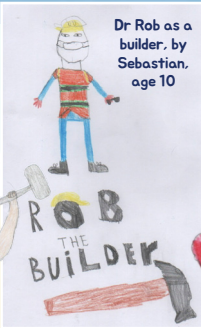
'Anna as a scientist'

By Lucy, Abby's sister, who said 'Thank you for helping my sister through this'



'Dr Rob as an amateur bodybuilder!'

By Phil, a grown up (and Abby and Lucy's dad!)



Dr Rob as a builder, by Sebastian, age 10



Dr Rob making people better, by George, age 3



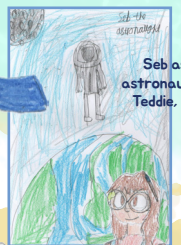
Seb as footballer, by Kian age 11 (and Nigel, his dad!)



Amy as a teacher, by Evie, age 11



Super Mary, by Emily, age 11



Seb as an astronaut, by Teddie, age 9



Mary as a personal trainer, by Lucy B



Dr Rob as a clown, by Sophie, age 12



Dr Rob as a manager, by Shrihan, age 8



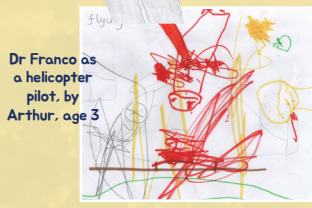
Dr Rob as a Barista, by Lara, age 13



Dr Kim as an international doctor of danger, by Tamara, Edmund's mum!



Claire as a painter, by Abby, age 13



Dr Franco as a helicopter pilot, by Arthur, age 3

Over to you...

A space to share your news, talents and things to celebrate!

'As we bow out of Paediatrics to join the adult team I wanted to let you all know what an amazing, empathetic, knowledgeable team we have had caring for us. Anyone new to this please be reassured you are in the best of hands. My foster son **Daniel**, an amazing young man was diagnosed with Crohn's 2 years ago. He has at times been quite poorly but always just got on with it. He very recently has had a stay in hospital followed by surgery. He missed a lot of School but his biggest goal was to make it to his School prom. He missed his GCSE's, last days of School and graduation. But guess what! Just 10 days after surgery he made it to Prom and as he walked down the red carpet with a girl in each arm, he got the biggest cheer. Thank you everyone for making this possible we'll never forget you.'

By Daniel's mum



One of our regular guests, **Emily**, has been busy with end of Year 6 activities - residential, SATS, and play rehearsals but has found time to get creative at home. Here is her amazing painting!

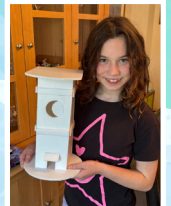
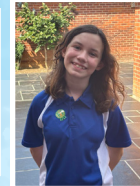
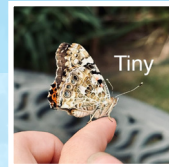


Gaby, another regular here, has been busy again performing on stage with SBS extreme street dancer, on holiday at butlins, creating artwork and school architecture, enjoying family fun days and choir and dance performances, releasing butterflies, coming 3rd in school sports day and having her last ever brownies! Wow!!

Thomas took part in King Lear, he was absolutely amazing, and he had many compliments on his acting skills and how engaging he was to the audience. Thomas had two parts, He played Kent, and then a servant. It was run by the Shakespeare company with multiple schools in this area taking part, each doing a section of the play. They are all about encouraging kids to take part in theatre shows. It took place at Colchester Mercury Theatre.

Thomas also took part in his first darts Championship, winning two games against one opponant!

Well done Thomas!



Meet **Edmund**, a creative young man with a great imagination! Here you can see him after a super successful sports day! He is 9 years old.



'I love to draw, and animate my drawings. When I am older I would like to work in animation. My head is full of characters and drawing brings them all to life.'

I now understand that Ulcerative Colitis will be with me forever, so in January I picked up my pens and created these characters, who tell the ongoing story of the battles that might happen inside my tummy, as some medicines loose and don't work and some win and do work to keep me well.'

Meet Edmund's characters at the top of the next page...

Meet **April**, who is 9. Since her Crohn's diagnosis earlier this year, she's been doing amazingly well under the lovely care of the Addenbrooke's team and has been back out smashing it as a goalie with her football team Hitchin Belles Blues U9. Here she is with her 'war paint' on at one of their tournaments this summer!



Inflixey-pixey



Inflixey- Pixey
(inspired by infliximab)
Is a good pixie - who fights gut disease by beaming medicine at problem areas. Can melt disease and heal other gut hero's when they are in trouble

Iron - man



Iron Man
He is a hero for gut disease as he delivers energy and fights tiredness



virus - vigalante

Virus Vigalante
A cunning character, as he always comes back. Can change appearance and shape making him tricky to combat

AZ ar - Axalotel



Azar-Axalotel
(inspired by azathioprine)
A playful but cunning trickster hero who can breath in bowel acid



gummy - Krampus

Gummy Krampus
A nasty Christmas present! Gummy Krampus gains power knowing children will eat lots of sweets at Christmas... making life extra tough for our Gut Hero's

Phoebe's story

Our lovely guest editor shares her IBD story

Hi, my name is Phoebe, and I am 13 years old. I was diagnosed with Crohn's in September 2024.

When I was first diagnosed, I'd never heard of Crohn's or IBD. I also struggled coming to hospital, due to anxiety and even more so with blood tests. It was hard for to come to terms with having Crohn's and what it meant for me. I wasn't great at taking medication but soon learnt quickly that if you hide the steroids in chocolate ice cream you can't even taste them. The injections were a rollercoaster ride although I can say now, I have got used to them. The team at Addenbrooke's have been so amazing and very patient helping me overcome my fears.

I was determined that Crohn's wasn't going to stop me from doing what I love. Some days I feel more tired and don't manage everything, but I don't let it stop me. I love to dance, act and sing.

Recently I was in a play called Blood brothers which was performed in an old church, it was an amazing experience. I am currently in rehearsals for my theatre school's end of year show where I'm playing Lola from Copacabana.

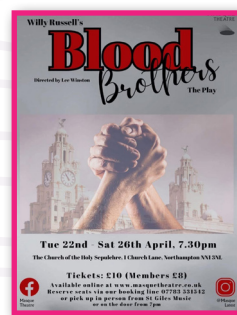
As you may have guessed I love the theatre and watching shows in the West End. The last show I saw was The Great Gatsby. I even got to meet one of my idols Corbin Bleu afterwards and was slightly star struck. Yes I did cry. I have a few to see over the summer including my favourite all time show Chicago, so I am excited. I keep a memory book of all the shows I watch and keep all the tickets too. I am hoping to add a few more.

During this last year I have met some amazing people who I can call my friends. This is because of Addenbrooke's. At the IBD family day it made me realise how many young people have IBD and they are going through the same as me although all our stories are different, we have something in common. I had great fun filming alongside my new friends and have kept in touch since.

Hope you have fun spotting the buckets and spades on the back page!

Happy holidays

Phoebe x



Time to play!



calling all young journalists!

Would you like to write, or draw, or share something for our newsletter? Or do you have ideas about what we could add? We'd love to hear from you.

We'd also love to know what you enjoy about our newsletter, and what could be better (You can ask us to stop sending you our newsletters here too).

To get in touch, scan this QR code or email: claire.glemas@nhs.net

Can you spot the blue spades and pink buckets?

In this super sunny summer picture, there are some blue spades and pink buckets hiding in the sand. Your mission is to find them all - look closely at the sandy beach and the kids playing!

How many blue spades did you find?

How many pink buckets did you find?

Can you draw something colourful in the sky? Maybe a rainbow, or some bright and cheerful kites?



Our guest editor...

This issue, our guest editor is Phoebe. She's 13 years old and you can read her IBD story on page 7.

Phoebe created this amazing activity for us - did you find all the buckets and spades? As guest editor, she also helped us choose the design of the newsletter, wrote her story and helped us check through everything before it went to print. Thank you for all your help Phoebe!

Would you like to be our guest editor and help create a future newsletter? Let us know - claire.glemas@nhs.net

There are 5 blue spades and 5 pink buckets!