Under the Microscope

Paediatric Gastroenterology Research Team newsletter

Addenbrooke's Hospital, Cambridge University Hospitals NHS Trust

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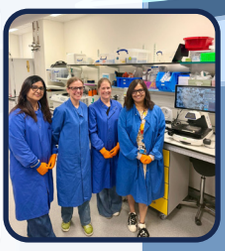
Issue 15 - November 2026

HELLO!

Welcome to Issue 15 of our research newsletter! It's been a busy few months! A big thank you to Thomas Davey, who is our guest editor for this issue. You can find out a little more about Thomas on page 5 If you would like to get involved with a future issue, we would love to hear from you!





Over the summer, we welcomed two research colleagues from Southampton to Cambridge. both called Kate! We had a great time showing the two Kates what we do here and sharing some of our research with them. They have now taken what they learned back to Southampton, where they will be helping us with our research from their hospital too.



We also have some brilliant news to celebrate. A huge congratulations to Dr Ellie Slater, who officially completed her PhD in September! This is a fantastic achievement and we are all very proud of her.

There is more exciting news for our research too - you can find out more about it later!



Our volunteers Jen and Seb spent the summer travelling around the UK filming grown ups living with IBD and IBD experts for a wellbeing section of IBDmate for adults. They're also getting ready to launch version 2 of IBDmate for kids, so look out for more info in the next few weeks!



Dr Rob has been off on an exciting adventure, exploring South Africa on two wheels! From Johannesburg to the open road, there were plenty of sights to see along the way.







Some of you might remember Henrik from previous newsletters. Well, he has been busy again! Henrik and Balint, one of our research team who lives and works in Hungary, have been travelling to share and learn about research.

Henrik has managed to have a few adventures along the way. Can you spot him as you make your way through the newsletter? See if you can find him on a tank, sitting by the sea, sunbathing and out sailing - they're quite tiny, so look carefully!

We hope you enjoy Issue 15 and, as always, thank you to all our children, young people and families who support our research.



Who's this?

Did you see a bear-y special visitor at the hospital recently? Find out more about a paw-some event coming to Cambridge next year on page 7...

Meet our team...

Scan here to see all our newsletters!

Leah-Anne



My name is Leah-Anne. I have been the Paediatric IBD Coordinator for nearly three years but have been working at Addenbrookes for over 10 years.

Many of you won't have seen me but I help ensure that things run as smoothly as possible for the team making sure that when you are newly diagnosed you are booked in for your first three appointments which includes making sure there are new patient information packs in clinic. I also chase up blood results, prepare the biologics homecare prescriptions for the doctors to sign, book routine appointments, help with MyChart messages, prioritise emails and listen to all the advice line calls to make sure they are directed to the correct member of the team. I also help with making sure that all our young people get passed over to the correct adult teams when they have turned 16. I enjoy being able to help patients and their families on their journey through the Paediatric IBD service.

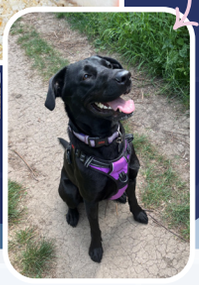
When I am not at work, I am kept busy with my husband and two teenage daughters, our dog Molly and two guinea pigs Biscuit and Daisy. Molly is a Labrador she is 4 years old, and we rescued her from an animal shelter 6 months ago.

I love going for long country walks with my family and Molly and I also enjoy running. I go to Parkrun on a Saturday morning and have even run a few half Marathons!



Biscuit and Daisy!

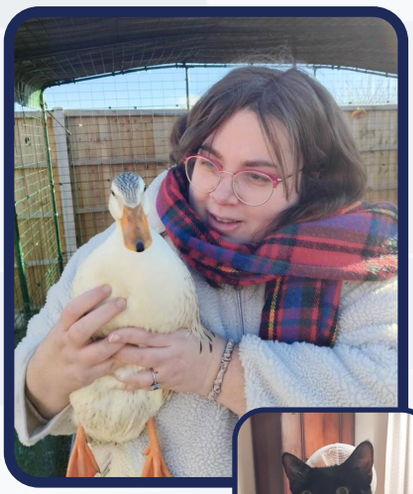
Molly!



I am scared of heights, so I struggled when I went to Wembley Stadium to watch football as we were on the top tier!

I enjoy going to see musicals and have been lucky enough to see quite a few - the Lion King, Phantom of the Opera, Les Mis, Jesus Christ Superstar, Joseph, Mamma Mia and my favourite is Rent, which I got to see on Broadway!

Eve



Hi I'm Eve and I'm the newest volunteer with the team!

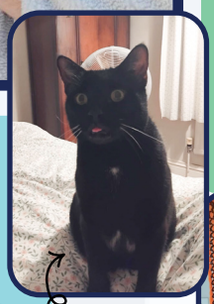
This year is my 20th anniversary of being diagnosed with Crohn's and 18th year living with a stoma, which means Crohn's and my trusty stoma sidekick have been with me through some key parts of my life, including school, uni, getting married and most important of all, being in charge of 6 cats and 3 ducks!

I'm hoping that my experiences can help me help you navigate the world with your IBD as part of your life but not the ONLY part of it!

Since being diagnosed with IBD and spending lots of time in hospital when I was younger, I realised that I was really nosey and always wanted to know more about my disease, my medicines and everyone around me! Who knew that years later, this nosey trait as well as my own experience as a patient has been the perfect potion to lead me to having a career in clinical trials, looking after doctors, patients and their families who are involved with research.

I am really looking forward to meeting you and hearing about the amazing things you're achieving every day while living with IBD.

When I am not at work or with the PIBD team, my animals keep me busy (even when it is wet and cold!). I am also really getting into crochet at the moment and have started making some clothes as well as Pokemon plushies for family members - always feel free to let me know who your favourite is and I can challenge myself!



Alan, one of my 6 cats!

I really don't like aquariums! I think not being able to swim plus how utterly terrifying some of those sharks can be is the perfect nightmare scenario...



My autumn project!

Our research...

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

Our mini-guts are about to become part of something HUGE!

The Medical Research Council (MRC) has announced an amazing £20 million investment in a new research centre called the UK Pre-clinical Translational Models Hub. Quite a mouthful, so we'll call it the NAM Hub!

NAM stands for New Approach Methodologies. These are clever new ways of studying diseases and testing medicines, using human cells, miniature organs and powerful computer technology. And guess what? Our very own Professor Matt Zilbauer will be leading the Hub alongside Professor Bertie Göttgens from the Cambridge Stem Cell Institute!



So why is this exciting?

Before new medicines reach patients, scientists need to test whether they might work and whether they're safe. Traditionally, some of this testing has involved animals. But humans and animals are different, so treatments that work in animals don't always work in people.

This is where our mini-guts come in!

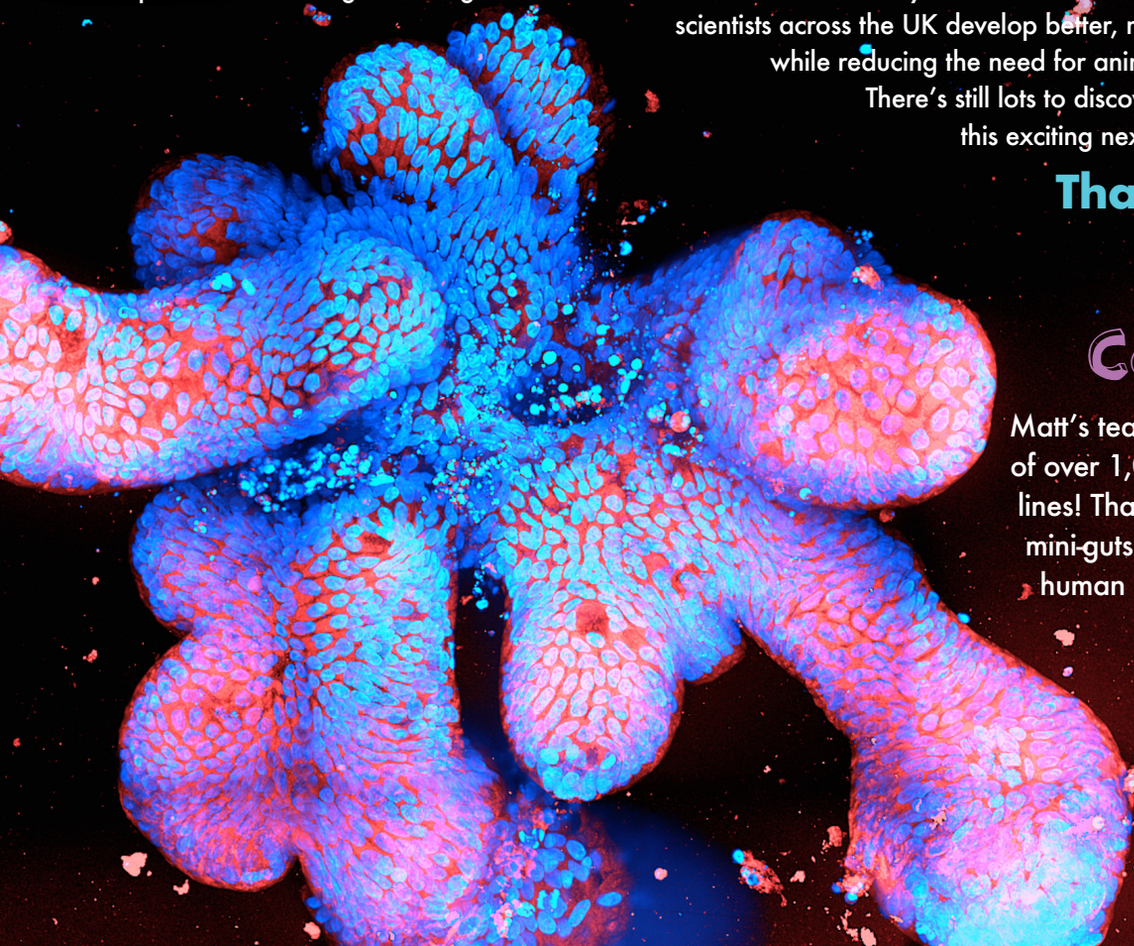
By growing tiny versions of human intestines (called organoids), scientists can study diseases and investigate how different medicines might work, all in the laboratory! The Hub will also use artificial intelligence (AI), powerful computer technology that helps scientists spot patterns and make predictions. Think of it as a super-powered research assistant!

What does this mean for you?

Over the years, so many of you have helped our research by taking part in studies and donating samples. These have helped our scientists grow mini-guts and learn more about inflammatory bowel disease. Now, this research could help scientists across the UK develop better, more personalised treatments, while reducing the need for animal testing.

There's still lots to discover, but you've helped make this exciting next chapter possible.

Thank you!



Cool fact...

Matt's team has developed a collection of over 1,000 patient-derived organoid lines! That's an incredible collection of mini-guts helping scientists investigate human diseases and potential new treatments.

This is what they look like dyed under the microscope!

A DAY IN THE LIFE OF A SCIENTIST!

Find out what goes on behind the scenes in the lab!

9:00am

Our scientists have arrived at the laboratory! They've made their plans and are ready for a busy day of discoveries!



Komal and Fariba are working together today!

Time to get started...

9:15am

First stop: The scientific hood

To start with they prepare research samples inside a special cabinet called a scientific hood. Filtered air helps keep unwanted germs out, giving the samples a super-clean workspace!



Hanging out in the hood!



I'm about to give our tiny gut organoids their morning check up. It's a bit like looking after a garden, but instead of plants. I'm growing mini versions of the human gut!

10:00am

Time to separate some cells!

Next, they study tissue, which is made of tiny building blocks called cells. Special liquids and equipment help separate the cells.



This is called tissue dissociation, a bit like taking apart a LEGO model to examine each brick.

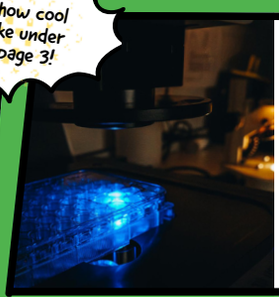
Even though cells are separated during this process, our scientists work carefully to keep them alive so they can study how they behave and what makes each type special!

11:30am

Let's look at some mini organs!

Using the EVOS microscope, our scientists explore organoids. These tiny groups of cells, grown in the lab, can behave a bit like parts of our bodies. What can they spot in this miniature world?

Remember you saw how cool organoids can look like under the microscope on page 3!



We can make parts of our mini-organs glow? Special markers light up under the right kind of light, making them easier to see against a dark background!



Time for lunch...

1:30pm

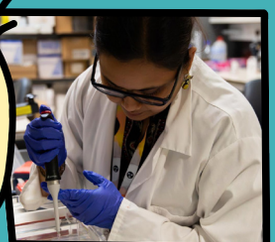
A DNA obstacle course!

After lunch, it's time to investigate DNA, the instruction book inside almost every cell! Our scientists put pieces of DNA into a special jelly called a gel.



Pipette action!

Electricity makes the pieces move through it, with smaller pieces travelling further than bigger ones. The pattern helps our scientists check their experiment.



3:00pm

Time for the super freezer!

Before heading home, they store precious samples in a liquid nitrogen system at around −196°C. The extreme cold helps protect samples for another day, almost like pressing pause!

The upper atmospheres of Neptune and Uranus drop down to about the same temperature!



All ready for tomorrow!

5:00pm

Home time!

What a busy day! Our scientists have explored cells, investigated DNA and stored samples for future discoveries. Every sample helps us understand our bodies and how treatments might be improved.

Thomas's story

Our guest editior shares his IBD journey so far...



Hi my name is Thomas, and I am 12 years old.

I was diagnosed with Crohns disease in 2022.

I've tried lots of different medications over the years, and had a few ups and downs. I'm now on Infliximab infusions, and I'm feeling really good.

If anyone was to describe me, they would say that I am a huge anime fan, a fortnite addict, who loves reading books, Doctor Who, my family, friends, and playing board games.

I'm in year 8 at school now, and so far I'm enjoying it, especially cooking and badminton.

A few weeks ago I went with my Mum and Dad to stay on the Norfolk Broads, and we also went to Pleasurewood Hills, which I was really looking forward to. I spent a lot of time screaming, but I'd still go again.

I learnt that even though the biggest rides look the scariest, they are the most fun.

I did get really tired after the whole day there, but I'm so glad that I went.

Maybe I'll get to meet some of you at the hospital, or on the next family fun day.

Enjoy my joke and wordsearch!

Thomas x

Thomas's joke

What is a pirate's favourite shop?

Aaaarrrrrgos!

This is me when I was diagnosed in 2022 - I was really sick.



This is me now, feeling much better and enjoying high school!



And having great days out with my mum and dad!



Over to you...

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



We presented a check to the team in clinic at the beginning of November!





I love my avatar - Jen based it on me wearing this outfit! It appears on the front of every journal - we've raised enough to money to fund about 500 journals!

Denny was our guest editor for our last newsletter. He's been doing something very special recently. Here he tells us all about it:

'When Dad said that Claire from Addenbrookes had asked for some help with fundraising, we jumped at the chance.

We did a cycling challenge for East Anglian Air Ambulance doing 200 miles in a month two years ago and loved it. This challenge needed to be bigger and better.

After talking to mum we decided to cycle 123 miles in a week. With help from Sarah and Rebecca at our local pub we organised the route, some posters and T-shirts.

I felt nervous on Day one because we planned to cycle 27 miles and I had never gone that far in one go before. I wasn't sure I could do it and I didn't want to let anybody down. With help from our village bike club and some of my friends at the finish we got round and I felt really good about myself.

As the week went on the crowds in our village got bigger (check out my Instagram videos), we had lots of guest riders and the money on our JustGiving page kept growing too.

The final day we cycled 25miles and it was a bit overwhelming. So many people came out to see us cross the line. I felt so proud. We went inside the pub and counted the money in our charity bucket. We had raised a massive amount and didn't know how to thank everyone.

I am so pleased we did a cycling challenge and have helped to buy all the IBD journals that other children get to read. I am proud to have raised so much money but also I wanted to show other people that even if you are unwell you can still do what you absolutely love to do.'



Levi and Waffle!

Levi was invited to go and film a couple of episodes with Waffle the Wonder Dog over Easter this year. And now it's finally ready to watch on CBeebies!

Waffle is a talking dog who now runs Waffle's After School Club and Levi went along to join in the fun with other kids he had just met. He dressed up in a pretend school uniform and a chef's outfit and hat and enjoyed the entertainment. He learned a new song 'Waffle the Pumpkin Doggy' just for the show. They even had lunch and snacks there too!

Levi and his mum spent a few nights in London and ate at the Italian restaurant next door every night! It was a fun mini-adventure and Levi loved meeting Waffle and his owner, Mr Brooklyn Bell.

This is Jean. She wanted to tell us that she's back to doing the things she loves!



'I was diagnosed in November 2024 with Crohn's disease. It was scary but I have come to accept this is now me. I spent 2 years struggling to go out with my friends and attend school. This year I was finally well enough to start enjoying these things again and even started to ride again.'







Edward and Arthur both started reception. Arthur wants to be an astronaut and Edward wants to be a T-Rex! They have both also been getting into the autumnal spirit with a trip to the pumpkin patch for all things spoookyyyy!





George started reception too - doesn't he look smart in his uniform?



This is Isabelle - she wants to share her story with us!

'Hello, my name is Isabelle. I was diagnosed with ulcerative colitis age 2, and I'm now 7. This past year, since November 2025, I've navigated a whole new life with my stoma who I've proudly named Timmy! He has given me so much more life and freedom and I feel so much better for having him! I've done things I never thought I'd be able to like riding a bike without a single belly ache! My mum has been designing my bags for the Halloween month and now on to the Christmas month, I'm so excited! Thank you for reading my little story x'









Emily, 12, has been busy baking lately. She's been trying to develop her icing skills and it helps that the finished cakes can also boost her calories! Emily was diagnosed with Crohn's just before her 7th birthday.

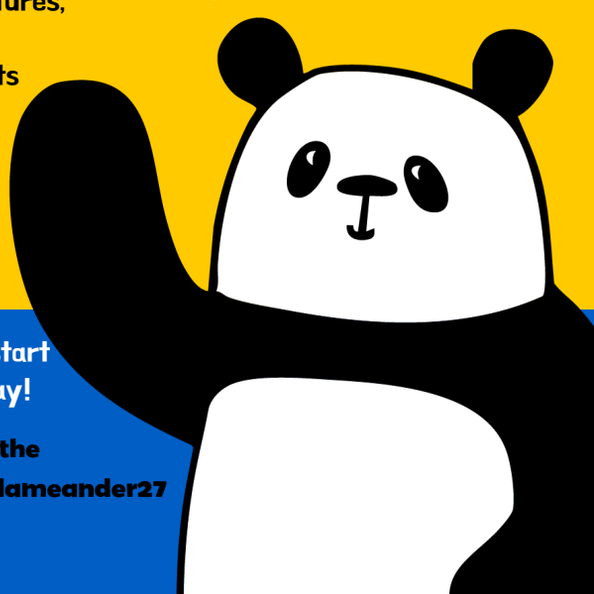
We're going on a Panda Meander!

Something pandastic is coming to Cambridge, and we can't wait!

In spring 2027, from 20 March to 30 May, Cambridge will come alive with a vibrant celebration of colour, creativity and community spirit as Panda Meander takes over the city. This free public art trail will feature 30 large panda sculptures, each brought to life by talented artists, alongside 38 smaller panda cubs designed by local schools and community groups, transforming our streets and green spaces into an unforgettable outdoor gallery.

Organised by Addenbrooke's Charity, this wonderful project will raise money to help build the new Cambridge Children's Hospital as well as supporting Children's Services at Addenbrooke's and the Rosie.

PANDA MEANDER
ADDENBROOKE'S CHARITY



Here in the lab, we're already excited to put on our walking shoes and start meandering! We hope you'll join us in spotting some pandas along the way!

Find out more at www.pandameander.co.uk and follow the socials; Instagram @panda.meander; Facebook: @Pandameander27

Time to play!

calling all young journalists!

Would you like to write, or draw, or share something for our newsletter? Or tell us what you'd like to see in the newsletter! 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). Your feedback is super important to us.

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

Doctor Who winter wordsearch!

Can you find the 14 words on the TARDIS door – they're hidden in Thomas's wordsearch! The words can run forwards, backwards, up or down.

D	M	O	M	J	I	R	P	K	U	V	S
O	P	S	A	Z	F	C	B	U	R	T	O
F	L	S	T	U	O	H	L	Z	I	H	W
P	A	N	G	E	L	S	T	B	A	E	N
D	N	R	O	S	E	C	I	P	I	D	E
R	E	T	F	D	O	C	T	O	R	O	D
O	T	S	N	A	M	R	E	B	Y	C	A
L	S	I	F	L	Y	I	N	G	P	T	L
E	O	U	X	E	T	R	O	V	S	O	E
M	R	T	N	C	H	U	S	N	Q	W	M
I	F	L	S	T	A	R	D	I	S	U	X
T	S	O	N	I	C	B	E	S	U	D	V
G	H	Y	E	W	A	S	X	F	L	M	O

TARDIS
SONIC
ANGELS
ICE
DALEK
ROSE
PLANETS
STAR
CYBERMAN
VORTEX
FLYING
DOCTOR
TIME LORD
FROST

How quickly did you find all 14 words?

mins secs

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

