



November 2020

The Medical Research Zone ran from 2 to 27 November 2020. The Zone was 1 of 4 Zones that ran as part of *I'm a Scientist: On Demand* in November 2020.

I'm a Scientist: On Demand aims to offer greater flexibility to teachers in how, and when, they could take part in *I'm a Scientist*. This is in response to the COVID-19 situation and greater restrictions and uncertainty in schools.

The Medical Research Zone was funded by the Medical Research Council (MRC).

Impact of the COVID-19 pandemic

Uptake across all November 2020 Zones was much lower than initially expected.

The COVID-19 pandemic increased uncertainty and pressure in schools. Many teachers reported lost time due to school closures and students isolating, and a need to focus on the core curriculum.

Student attendance dropped to 65% for some schools in November. The rapidly changing situation made it difficult for teachers to plan ahead. Many schools restricted access to shared IT equipment, leading some teachers to ask questions in live Chats on behalf of their students, projecting the Chat on a screen. The average class size attending a chat was 25% below normal.

Key figures

Researchers and technical staff

- 41 researchers and technical staff created profiles in the Zone.
- 38 researchers and technical staff engaged with students in the Zone.
- A broad range of fields and career stages were represented. For example:
 - Natsuko Imai research associate at the MRC Centre for Global Infectious Disease Analysis, Imperial College London
 - Vrushali Patil researcher in Mammalian Synthetic Biology at The UK Centre for Mammalian Synthetic Biology, funded by the MRC
 - Suzan Kors PhD student in Biological Sciences and GW4 BioMed MRC Doctoral Training Partnership, University of Exeter

Students

- 467 students logged in, from 20 schools across Great Britain and 1 from the USA.
- Student participation was 31% of the 1,500 target.
- 82% of active students were from target schools (WP and/or U).
 - o 39% were from widening participation (WP) schools.
 - 58% were from underserved (U) schools.

Live Chats & Questions

- 28 live Chats took place took place during the activity.
- 34 live Chats were booked (42% of capacity), but dropout was higher than usual with 6 cancellations.
- On average, 7 researchers/tech staff attended each live Chat; more than is typical.
- 1 teacher typed questions in a live Chat on behalf of their students, so the total number of students engaged in this Zone may be higher by up to 25.
- 58 student questions were approved. There were 109 answers provided.









Comparison with other November 2020 Zones

The Medical Research Zone was 1 of 4 Zones that ran as part of *I'm a Scientist: On Demand* in November 2020.

On several measures the Zone performed on a par with the average across all *I'm a Scientist* November 2020 Zones.

- The number of schools taking part and the number of students taking part were very close to the average figures across all Zones (+5% and -5% respectively).
- The number of live Chats booked by teachers and the number of Votes cast by students were also close to the average across all Zones (93% of average).
- The number of questions asked (116) was the second highest out of the 4 *I'm a Scientist* Zones in November 2020. The Zone with the most questions asked had an unusually high number (463), leading to a higher than usual average.
- As a result, the number of answers given by researchers and technical staff was also lower than the average across all Zones.
- There was a high level of engagement by researchers and technical staff in the Zone, as evidence by:
 - The percentage who were active in the Zone was higher than the average across all Zones (93% compared to 88%).
 - On average 7 researchers/tech staff attended each live Chat. This is higher than the average of 6 per Chat, across all Zones.
 - The number of comments left by researchers and technical staff was 9% higher than the average.

	Medical Research Zone	Nov 2020 average
Schools	21	20
Students logged in	467	488
% active	82%	83%
Researchers/tech staff	41	42
% active	93%	88%
Questions asked	116	176
Questions approved	58	104
Answers given	109	263
Researcher/tech staff comments	51	47
Student comments	0	5
Votes	245	262
Live chats	28	30
Lines of live chat	8715	9562
Average lines per chat	311	321









School activity					
	Active	Chats attended/	Li	ive chat lines	Questions
School	students	booked	Total	Per student	approved
St Bridget's Primary School, Glasgow City (WP)	50	2/3	681	14	2
Brockhill Park Performing Arts College, Hythe (U)	46	3/3	340	7	2
Hexham Middle School, Hexham (U)	26	1/1	338	13	26
Meden School, Mansfield (WP/U)	26	1/1	198	8	0
The Oratory School, Reading	25	2/2	254	10	13
Robert May's School, Hook (U)	24	1/1	234	10	1
Trinity Cofe High School, Manchester (WP)	21	1/1	288	14	7
Ysgol Uwchradd Aberteifi, Ceredigion (U)	21	1/1	163	8	0
Ryton Junior School, Gateshead (WP)	20	1/2	343	17	0
Clarkstown High School North, Rockland, USA	20	1/1	74	4	0
South Wirral High School, Wirral (WP/U)	19	1/1	217	11	0
Weston College, Weston-Super-Mare (U)	16	1/1	77	5	0
The Manor Academy, Mansfield (WP/U)	14	1/1	138	10	1
Mallaig High School, Highland (U)	13	1/1	117	9	0
Frome Community College, Frome	13	1/1	91	7	0
Frisby CE Primary School, Melton Mowbray	9	1/1	229	25	5
Beaulieu Convent School, Jersey (U)	8	1/1	64	8	0
Launceston College, Launceston (U)	7	1/1	55	8	0
Northfield School and Sports College, Billingham*	2	1/1	40	20	0
Glenluce Primary School, Glenluce (U)	2	0/1	0	0	1
Gillotts School, Henley-On-Thames	1	Only joined open chat	4	4	0

^{*}This school took part through the teacher account due to restricted access to individual student laptops.

We want to increase the participation of under-represented groups going into STEM careers. Find out what we mean by our under-served (U) and WP schools (WP), and how you can support us in working with more of these at: about.imascientist.org.uk/under-served-and-wp/





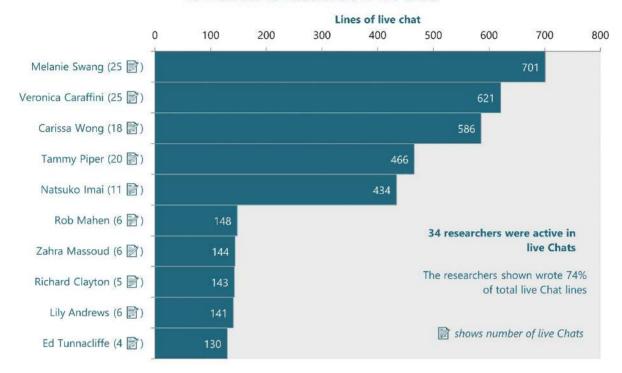




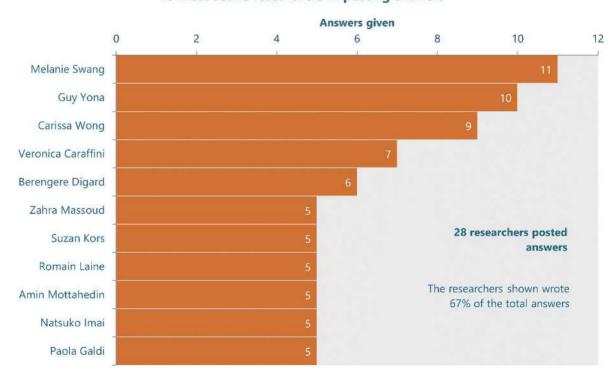
Researcher activity

38 researchers and technical staff were active in the Zone, writing 4,770 lines of live Chat, and providing 109 answers to posted questions.

10 most active researchers in live Chats



10 most active researchers in posting answers



See all the participating researchers and technical staff: mrcmedical20.imascientist.org.uk/researchers









Frequent words used in live Chats by Students, researchers and technical staff

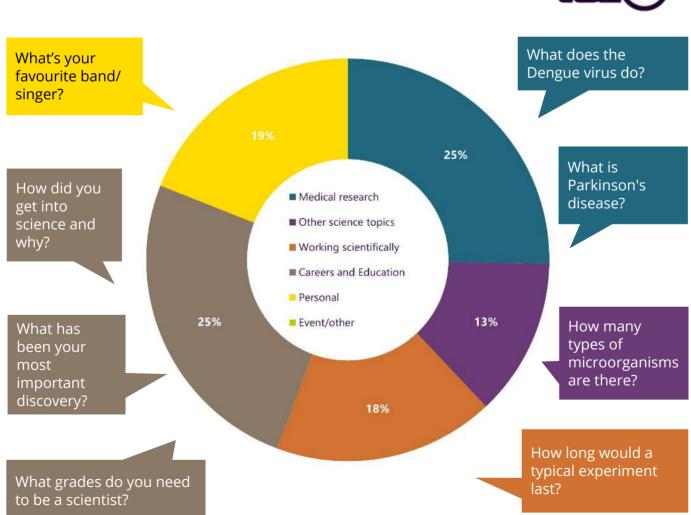




Cancer featured prominently in live Chats, more so than in <u>other MRC funded Zones</u>. This may be because 3 of the 5 most active researchers and technical staff in live Chats work in cancer-related fields.

Question themes and examples













Examples of good engagement

Within the live Chats, students often asked the researchers and technical staff for their thoughts on issues that directly affect them, such as in this conversation about the impact of social media.

Students often shared their own opinions, showing they felt confident in the chat and that their thoughts have value. This helps to support their Science Capital:

julia @Nina do you think teenagers should stop using social media

Nina @julia: hi! I don't think so no - social media has a lot of benefits in terms of keeping people in touch with their friends and social interaction. Too much can be a problem for some people, but I think it's better to help people understand when they need to take a break from social media instead of stopping it all together.

julia @Nina: how do we know whens best to take a break?

Nina @julia: This is a question that is interesting to researchers at the moment:) So far we know that it's not good for people's wellbeing if they find themselves comparing negatively to other people online, or are online so much that their relationships with 'real life' people start to be impacted

Eve L @Nina: do you think social media has had an impact (positive or negative) on how we interact and behave with others in person?

Nina @Eve L: There are some examples, like cyberbullying, where it negatively affects people's real world experiences, but right now for many people on the internet social media is another place to socialise. Do you have any thoughts about what kind of impact it has?

Eve L @Nina: yes, i agree :(and i definitely think it has a negative impact. most people i know are completely different on social media than in person... like with what you were saying about cyber bullying i think people are so much more willing to say unkind things online than in person.

Nina @Eve L: It's definitely a reason to be really careful about how we interact online! Thanks for sharing and your questions:)









Many students were interested in the researchers' and technicians' career paths and reasons for working in science. Researchers and technicians were also interested in finding out what careers the students were interested in:

BradleyE @Vrushali what was ur dream job

Vrushali @BradleyE: I wanted to be a cardiologist as a kid, but then switched to farmer in my teens - love the idea of driving a tractor (still on my bucket list!)

BradleyE @Vrushali: what made you change from a farmer to become a scientist

Vrushali @BradleyE: I grew up in an urban area so access to farming training was a bit limited:) However I did do a PhD in barley here in Scotland so pretty close! It made me realise how little we know about the 'construction' of living organisms (including crops!).

BradleyE @Vrushali: that sounds really fun

Vrushali @BradleyE: Thanks Bradley! What would you like to be?

BradleyE @Vrushali: would love to become a psychologist

Vrushali @BradleyE: Fascinating! It's a complex and important subject - all the best on your journey:)

BradleyE @Vrushali: thank you

Weekly winners

Students voted each week for their favourite researcher or technical member of staff. The weekly winners were:

- Melanie Swang a PhD student at the UK Dementia Research Institute, University of Cambridge, funded by the MRC
- **Veronica Caraffini** a postdoc at the MRC Cancer Unit, University of Cambridge
- **Natusko Imai** a research associate at the MRC Centre for Global Infectious Disease Analysis, Imperial College London
- **Tammy Piper** Tissue Bank Manager at the Biomarkers & Companion Diagnostics Group, University of Edinburgh

The overall winner of the Zone was **Melanie Swang**.

















Feedback





Oratory Science @oratorys... Nov 26 @HouseWootten your 1st Form girls asked some cracking questions to #actuallivingscientists working in medical research in today's @imascientist chat. Definitely some future #WomenInSTEM in this group!





"It has been great! I was a bit scared before the first chat but after that I loved it! Chats are mostly really fast so when you get to answer a question you need to do it quickly but at the same time in a clear way, so for sure it's helpful."

Veronica Caraffini, Researcher.

"We loved this chat and learning about your job was fantastic!!!"

Student

"The students have all enjoyed it and gained lots of useful info."

Teacher

"Applying for this was one of the very first things I did after I arrived in the country, and I honestly had no idea what to expect, but it's been great fun! And I'm honestly learning a lot too!"

> Melanie Swang, Medical Research Zone Winner

"Thank you for your time taken out of your day, I have had a lot of help to take my next steps taking further into university."

Student



Veronica Caraffini @VeroC... Nov 28 Replying to @CarissaCWWong @imasci...

You need to take breaks while writing your thesis and what's better than filling these breaks with scientific conversations with kids?

"Thank you so much for all your interesting comments and answers, this has been great."

Teacher



