



Remsha



Oliver



Lisa



Kieran



Fiana



David

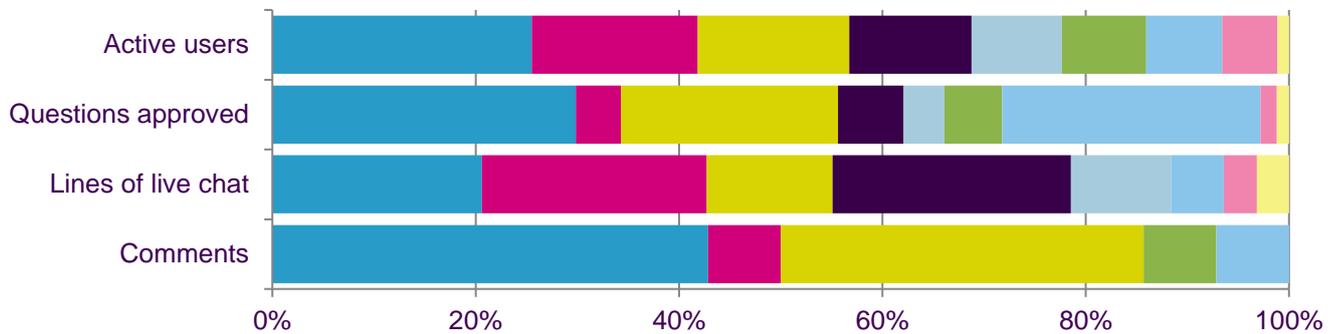
November 2018

The Genes Zone was a themed zone supported by Wellcome and involved six scientists:

- Remsha Afzal studies how to control our immune cells to fight disease
- Oliver Feeney is a researcher and lecturer in bioethics, interested in the ethical, legal and social implications of new biotechnologies
- Lisa Dwane is researching breast cancer and searching for new ways to treat this disease
- Kieran Meade runs a research group at Teagasc aiming to study the immune system
- Fiana Ní Ghrálaigh, the zone winner, is a PhD student aiming to understand how DNA makes our brains work differently
- David O'Neill, who was unfortunately unable to take part, researches into how the DNA of different organisms can make an impact on water quality and wildlife conservation

Students in this zone showed an interest in the zone's theme, asking the scientists about their research and more general biology and DNA questions. Nearly half of all questions put to the scientists in ASK were about science topics, mostly human biology. One scientist, Remsha, was very active in ASK and CHAT, making up over 40% of all answers/chat lines.

School data at a glance

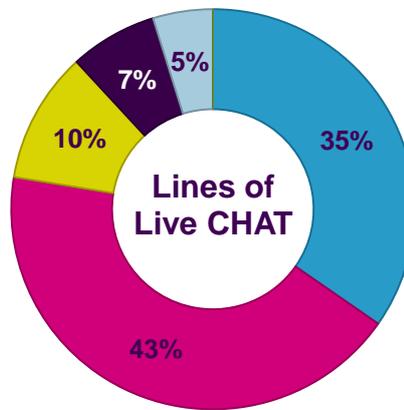


- Colaiste Pobail Setanta, Dublin (U)
- Coláiste Chill Mhantáin, Wicklow
- Scoil Chaitriona, Dublin (U)
- Loreto Secondary School, Donegal (DEIS)
- Heywood Community School, Laois
- Abbey Community College, Roscommon (U)
- Castlecomer Community School, Kilkenny
- Mercy Secondary School Mounthawk, Kerry (U)
- St Andrews College, Dublin (U)

We want to increase the participation of under-represented groups going into STEM careers. Indicated here are SFI priority counties (U) and Delivering Equality of Opportunity in Schools (DEIS).

Find out more at about.imascientist.ie/widening-participation

Scientist activity



| SCIENTIST | PROFILE VIEWS | POSITION |
|--------------------|---------------|----------|
| Fiana Ní Ghrálaigh | 580 | Winner |
| Remsha Afzal | 559 | 2nd |
| Lisa Dwane | 460 | 3rd |
| Oliver Feeney | 538 | 4th |
| Kieran Meade | 384 | 5th |
| David O Neill | 350 | 6th |

Key figures from the Genes Zone and averages of the November zones

| PAGE VIEWS | GENES ZONE | NOV '18 ZONES AVERAGE |
|-------------------|------------|-----------------------|
| Total zone | 16,235 | 19,289 |
| ASK page | 1,256 | 2,268 |
| CHAT page | 1,140 | 1,171 |
| VOTE page | 618 | 800 |

| | GENES ZONE | NOV '18 ZONES AVERAGE | IAS 2012-18 AVERAGE |
|--|------------|-----------------------|---------------------|
| Genes Zone Schools | 9 | 12 | 11 |
| Students logged in | 409 | 392 | 373 |
| % of students active in ASK, CHAT or VOTE | 85% | 87% | 70% |
| Questions asked | 431 | 1,011 | 665 |
| Questions approved | 248 | 416 | 289 |
| Answers given | 364 | 563 | 508 |
| Comments | 45 | 80 | 67 |
| Votes | 254 | 344 | 307 |
| Live chats | 20 | 18 | 16 |
| Lines of live chat | 4,976 | 4,692 | 4,232 |
| Average lines per live chat | 249 | 253 | 268 |

Popular topics

'Cancer' was the most common keyword in live chats and a frequent topic in questions in ASK. Students wanted to know the causes of different types of cancer, as well as about research being done into treatments and cures.

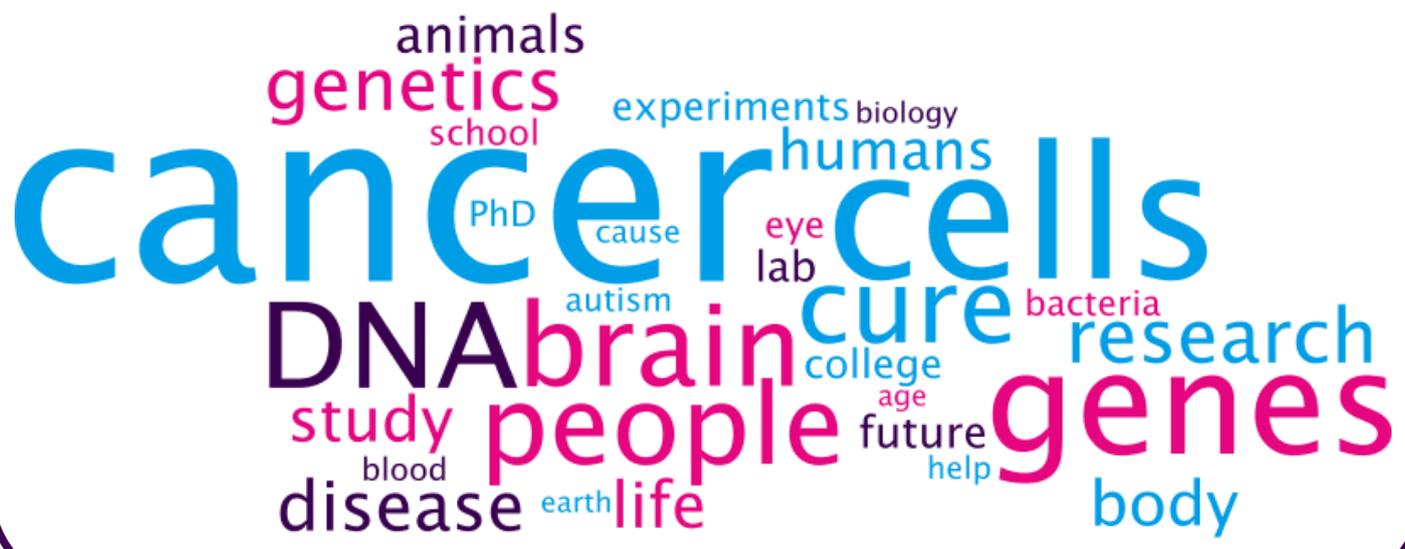
Students also showed an interest in processes behind the scientists' research, asking about the use of animals and bioethics. They wanted to know how gene editing could be used in the future and how it might help people.

In ASK, students asked lots of questions about biology and the human body. 'Immune system' was a popular keyword, relating to Remsha and Kieran's research areas. They wanted to know about the different types of experiments they run, how you can test the strength of our immune system and about the effect of antibiotics, for example.

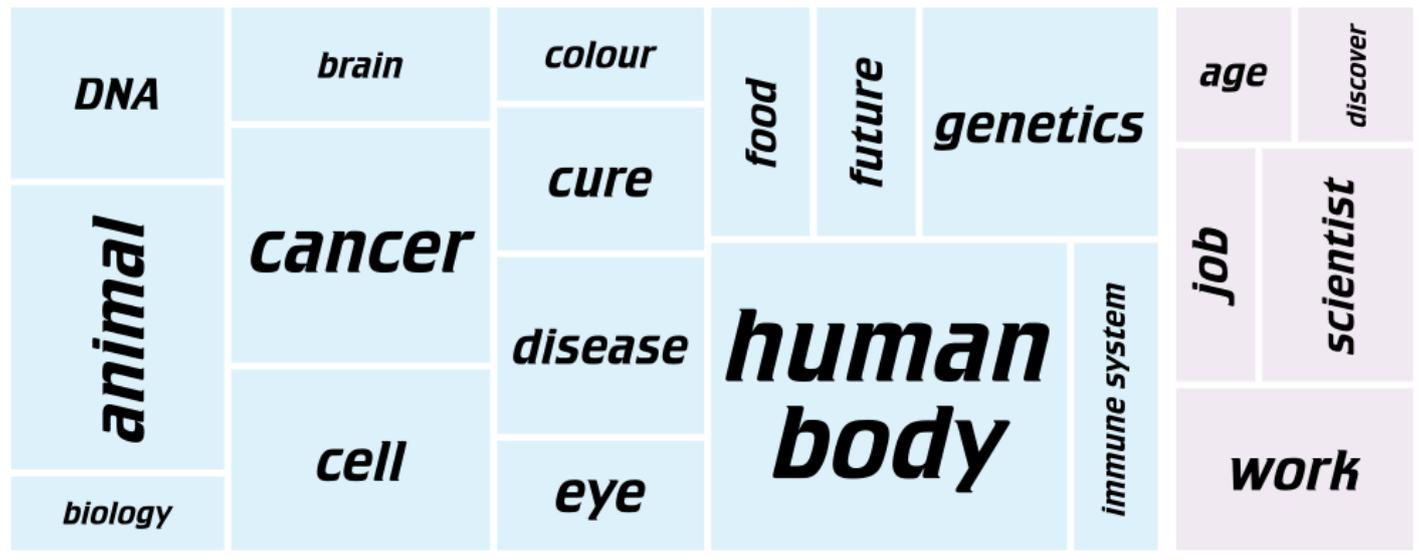
There were also a range of questions about the scientists personally, like their inspirations and aspirations.



Keywords from live chats in the zone. Size of the word represents its popularity



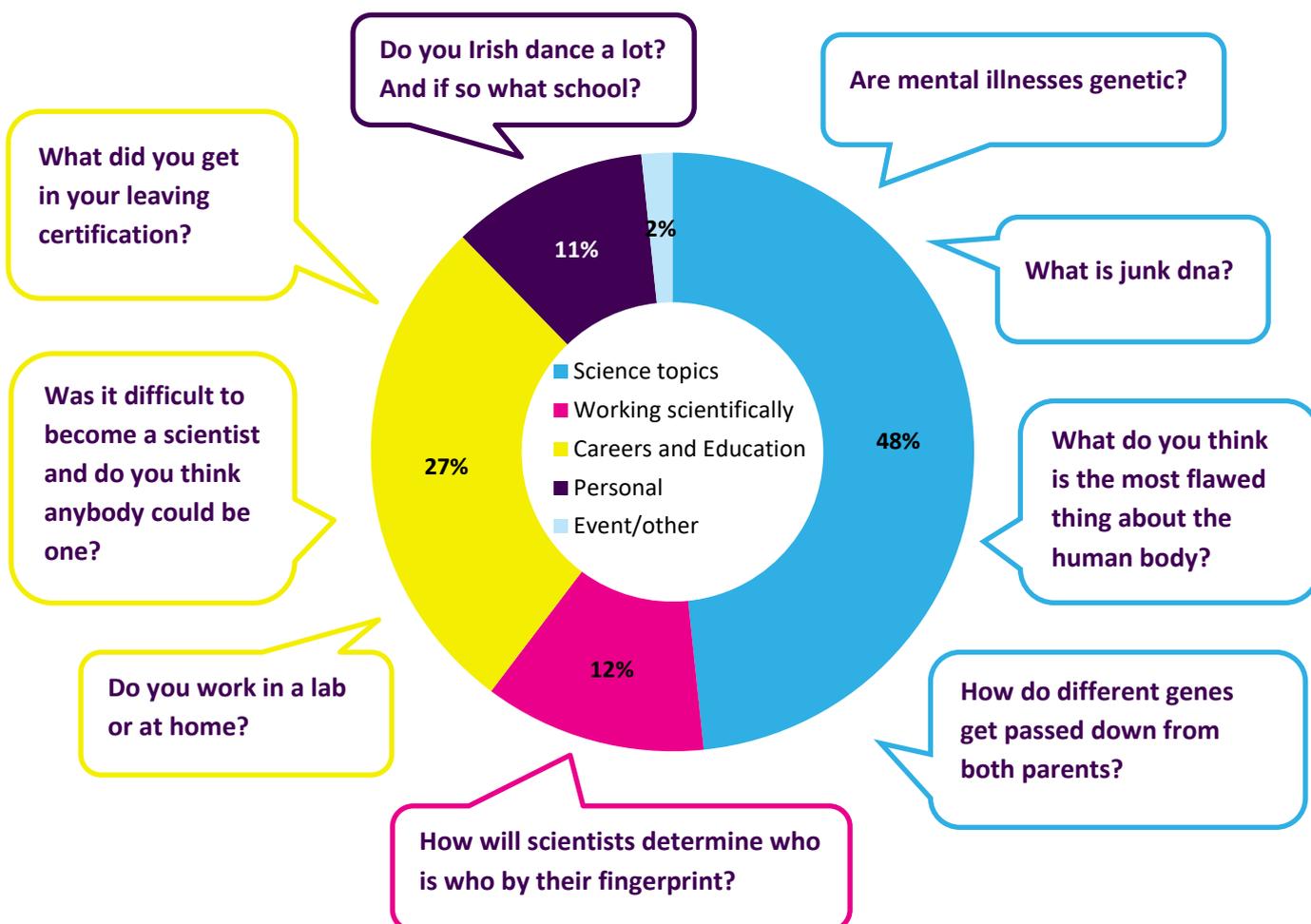
Top Keywords of questions approved in the Zone



■ Science ■ Being a scientist

Question themes and example questions in the Zone

Find out about how we've coded the questions at about.imascientist.org.uk/student-question-coding



Examples of good engagement

In this zone the scientists were good at asking the students questions in return to share interests and experiences. This helped the students see the scientists as someone 'like me' and contributed towards their science capital:

"What was your favourite subject at school" – Student

"Music! I play the clarinet (like Squidward) and piano!!" – Fiana, scientist

"My sister plays clarinet and piano too!!!!!!" – Student

"No way!! That's such a coincidence! Do you play any instrument?" – Fiana, scientist

"Yes i play saxophone" – Student

"That is crazy because my brother plays the saxophone!!" – Fiana, scientist

"Cool" – Student

Students showed an interest in the scientists' areas of work, often coming up with follow-up questions based on responses they received:

"I've never heard of "bioethics", do you care to explain?" – Student

“Sure! It is an multidisciplinary (philosophers, lawyers, MDs etc) examination of healthcare practices and biotechnologies to see what ethical, legal and societal issues may arise (eg gene editing and rights of future generations)!” – Oliver, scientist

“Ah! So something of a moral philosopher for biotech?” – Student

“Exactly! Applied or practical ethics can cover some of it too!” – Oliver, scientist

“Would it be considered ethical to purposefully change and manipulate genes to, for example, determine how your baby would look like? what would be the best arguments for/against?” – Student

“Some changes would be more morally permissible than others - to be healthier, more intelligent, live longer, etc - these expands possibilities of a good life. Changing for vanity or superficial looks reasons would seem less moral for sure.” – Oliver, scientist



Scientist winner: Fiana Ní Ghrálaigh

Fiana’s plans for the prize money: *“I want to buy fun equipment to bring with us to our demonstrations and engagement events to help me to explain the work that we do.”*

Read Fiana’s [thank you message](#).

Student winner: 939genp37

For great engagement during the event, this student will receive a gift voucher and a certificate.

Feedback

We’re still collecting feedback from teachers, students and scientists but here are a few of the comments made during the event...

I have learned that being a scientist is a very useful and rewarding job. I've learned more about animals and their immune system, which I found very interesting, makes me want to be a vet, my dream job even more! – **Student**

I am certain that over the past two weeks I have spoken to the scientists of the next generation. Each student and each school brought something so different to the event. I am grateful to every single one of you for the part you played. – **Fiana, zone winner**