

## March, 2019

The Drug Discovery Zone was a themed zone supported by Wellcome. It featured six scientists:

- Sebastian Cosgrove, who uses flow chemistry and enzymes to better control chemical reactions.
- Padhmanand Sudhakar, a computational biologist who engages with policy makers and politicians.
- Lee Steinberg, the winner of the Drug Discovery Zone, uses supercomputers to design new drugs and predict how they will behave.
- Jennifer Harris, who helps scientists discover and develop new treatments for patients.
- Fiona Scott, who makes new molecules in an effort to help cure cancer.
- Eleanor Senior, who tests the behaviour of cow parasites in order to locate genes for further testing.

### Key figures from the Drug Discovery Zone and the averages of the March zones

PAGE VIEWS	DRUG DISCOVERY ZONE	MAR '19 ZONES AVERAGE
Total zone	11,211	15,399
ASK page	806	1,114
CHAT page	1,134	1,291
VOTE page	1,078	1,327

	DRUG DISCOVERY ZONE	MAR '19 ZONES AVERAGE	IAS 2012-19 AVERAGE
Drug Discovery Zone Schools	9	8	10
Students logged in	334	388	391
% of students active in ASK, CHAT or VOTE	92%	92%	86%
Questions asked	319	443	675
Questions approved	186	216	297
Answers given	407	437	532
Comments	30	29	71
Votes	271	312	308
Live chats	18	19	16
Lines of live chat	5,882	6,732	5,711
Average lines per live chat	327	352	358

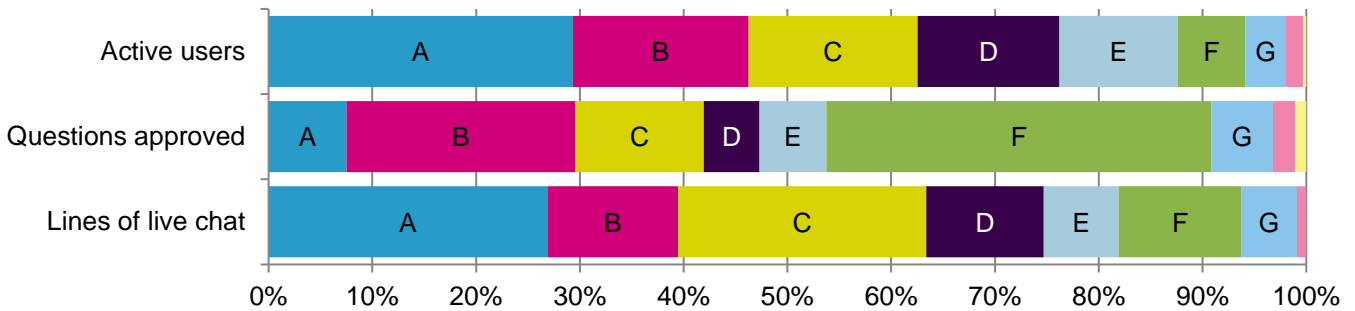
### Popular topics

Conversations in the Drug Discovery Zone were very on topic, with students wanting to know about current research into different drugs and cures for diseases, especially cancer.

The students were also interested in careers and education, with 43% of questions sent to ASK categorised as such. This would include questions about the scientists' career history, but also education advice and job satisfaction.

There were also more questions about how science works in this zone than an average themed zone. Students wanted to know about the process of drug discovery and creation, and the impact some drugs had on society.

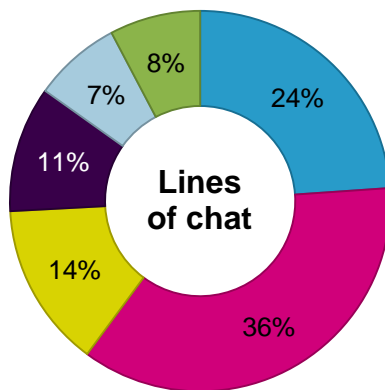
**School data at a glance**



School	Year/s	Classes	
A	Ormiston Park Academy, Aveley, WP/U	Y10	4
B	Orchards Academy, Swanley, WP/U	Y9, Y10	2
C	St Mary's School for Girls, Colchester	Y9	3
D	The Corbet School, Shrewsbury, U	Y10	2
E	Walton Girls' High School & Sixth Form, Grantham, U	Y10, Y12	2
F	St Augustine's Catholic College, Trowbridge	Y10	1
G	St Martin in the Fields High School for Girls, London, WP	Y8	1
H	Aquinas College, Stockport	Y12	1
I	Bluecoat Aspley Academy, Nottingham, WP	Y7	1

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/](http://about.imascientist.org.uk/under-served-and-wp/)

**Scientist activity**

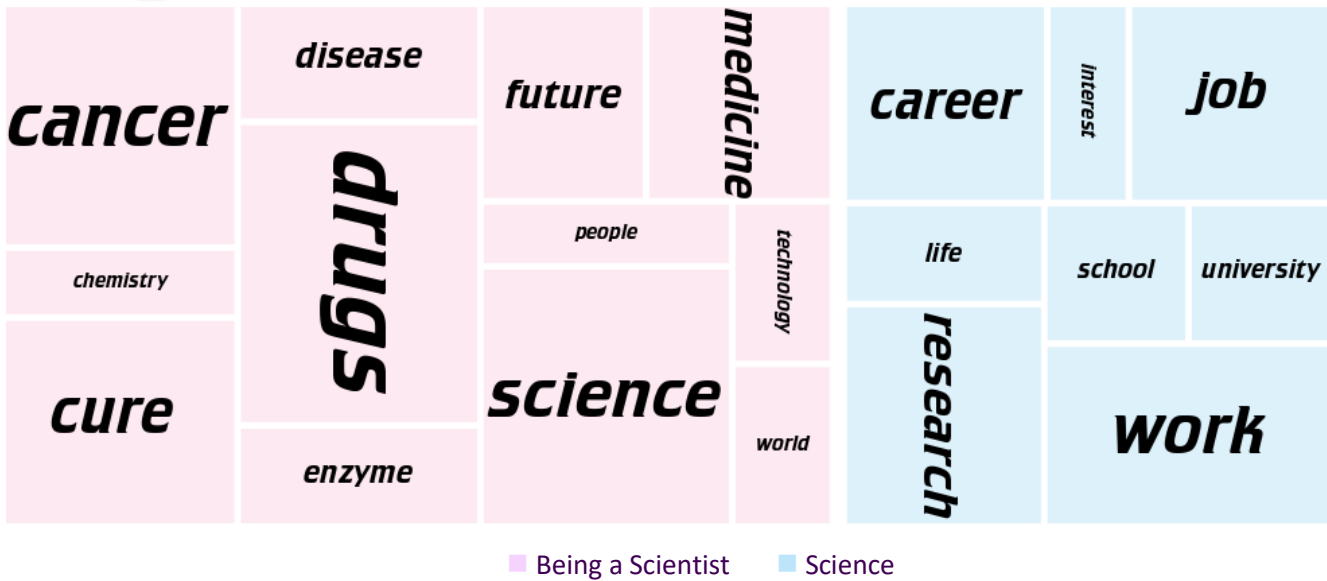


SCIENTIST	PROFILE VIEWS	POSITION
Lee Steinberg	358	Winner
Sebastian Cosgrove	452	2nd
Jennifer Harris	410	3rd
Fiona Scott	343	4th
Eleanor Senior	278	5th
Paddy Sudhakar	357	6th

**Ask ?**

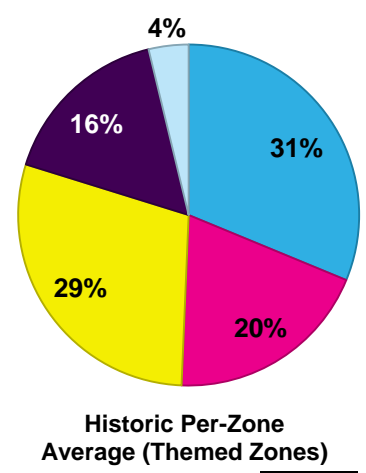
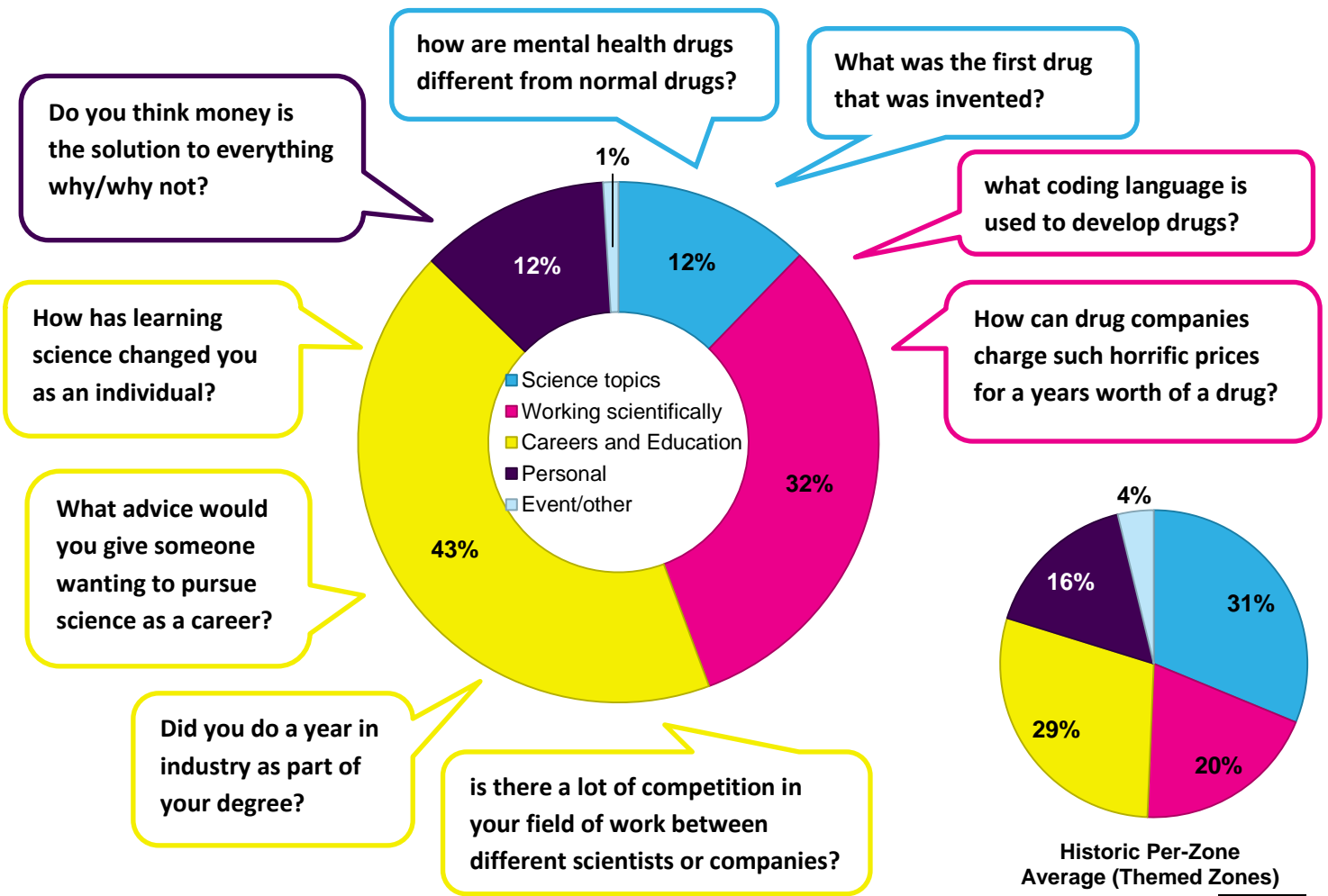
**Top Keywords of questions approved in the Zone**

Area represents frequency of use



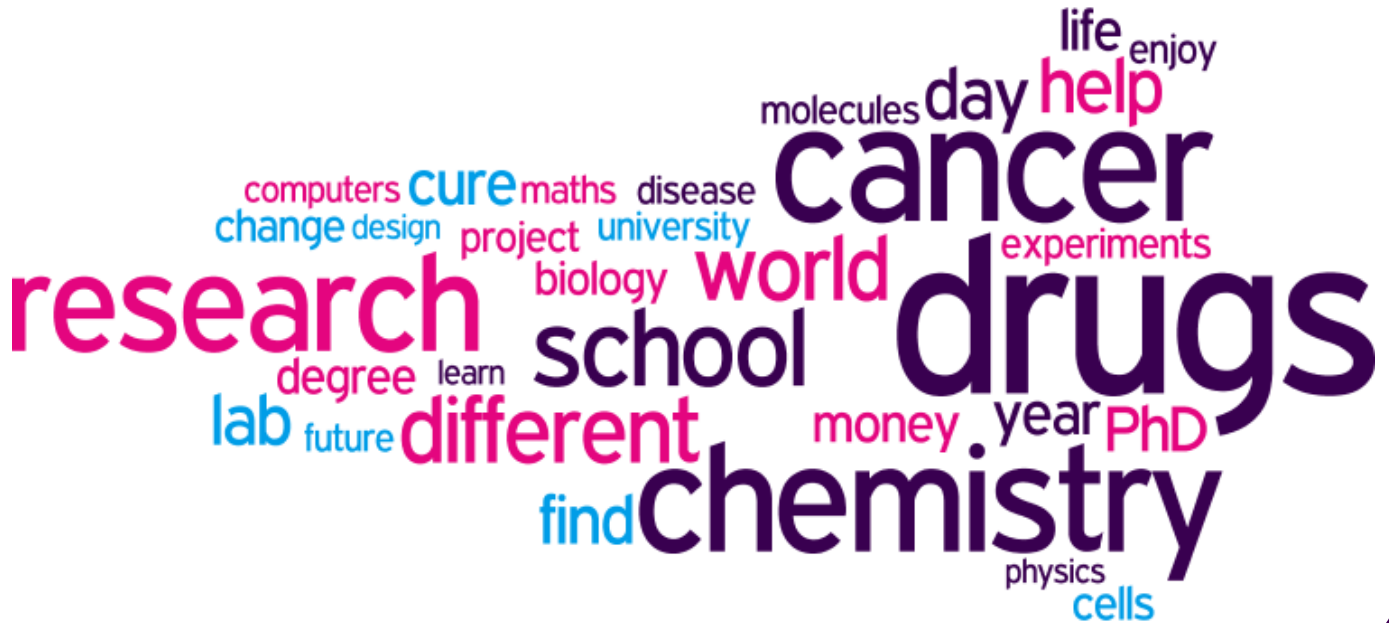
**Question themes and example questions in the Zone**

Find out about how we've coded the questions at [about.imascientist.org.uk/what-do-students-ask-about/](http://about.imascientist.org.uk/what-do-students-ask-about/)



## Chat

Frequent words used in live chats by students and scientists. Size of the word represents its popularity



### Examples of good engagement

The students were interested in the development and creation of drugs. In chats multiple students and scientists would get involved in conversations such as this:

*“What would you say the main priorities for drug development at the moment?” – Student 1*

*“I think antibiotics have to be made a priority at some point as antimicrobial resistance is become a really problem” – Eleanor, Scientist*

*“Drug resistance is a developing problem at the moment, so coming up with new drugs to target this is a big target for pharmaceutical science now.” – Sebastian, Scientist*

*“Also I think you’ll find it’s a little more complicated than that about science reporting in media.” – Lee, Scientist*

*“How are these priorities determined?” – Student 1*

*“If you look at the efficiency of current drugs/ antibiotics that are being used then we can say what area needs to be research to ensure that we don’t have an issue with treating disease. Does that make sense?” – Sebastian, Scientist*

*“What would you say the main priorities for drug development at the moment?” – Student 1*

*“Alongside antibiotic resistance, my biased opinion is that we need to improve our accuracy when predicting which drugs are going to be good for a particular disease. It would mean we spend less time on drugs that are useless.” – Lee, Scientist*

*“Lee makes a really good point, we produce so many chemicals that aren’t useful that saving time there would really help!” – Sebastian, Scientist*

*“Lee what drugs are you trying to make?” – Student 2*

*“Lots of different projects – right now I’m focusing on a more general method for seeing how the energy of a molecule changes as you move around.” – Lee, Scientist*

*“Wow that’s interesting, how does it change?” – Student 2*

*“The bonds stretch and bend – which changes the energy. When a drug binds to a protein or something it will want to be in a particular shape” – Lee, Scientist*

*“Cool that’s very clever” – Student 2*

The students were also interested in university, science career prospects and what to do at school to help with their application.

*“What sort of extra activities did you do during you’re a-Levels to support your Uni application?” – Student*

*“I helped run my school science club, and also ran a quiz society. I found that my universities were more interested in the extra reading that I have done outside of my A level courses.” – Lee, Scientist*

*“I go involved with running a business at school. So I could develop other skills that I might not have used in my classes” – Sebastian, Scientist*

*“I did some work experience at a hospital and a vets practise and I also did the AQA Baccalaureate which was an extra qualification where you could do an extended essay about any topic so I did mine on genetics.” – Eleanor, Scientist*



### **Scientist winner: Lee Steinberg**

Lee’s plans for the prize money: *“I want to develop my virtual chemistry lab. The money would go towards: a low-end Android tablet, improving the quality of our physical and online tools and to purchase an Oculus (or other Virtual Reality toolkit) so we can develop the app to have Virtual Reality support.”*

Read Lee’s [thank you message](#).

### **Student winner: Carina**

Carina from St Mary’s School for Girls was nominated by the scientists for asking ‘really insightful questions.’ Their questions in ASK included: “I really like coding on computers. Is coding a part of your job?” and “Did your teachers believe that you would be good at science?” As the student winner, Carina will receive a certificate and a gift voucher.

## Feedback

We're still collecting feedback from teachers, students and scientists but here are a few of the comments made about the Drug Discovery Zone...

I learnt I don't have to take triple science to get a degree and be a scientist – **Student**

Its so interesting finding out about what equipment and about what the scientists learn about like the enzymes that help with drug work. You get to work with alot of different people and with equipment, its so interesting to find out these things about the world and what can help. i love finding out about different enzymes and things to do with drugs. – **Student**

And here are a few made about the March *I'm a Scientist* activity:

It was fab! The children were engaged, there was a buzz around the room! What a pleasure to witness and inspire them! – **Teacher**

[I have learnt] scientists are normal people aswell not just nerds – **Student**

[I have learnt] a lot really about the level I should keep in a conversation to keep interest and how to give students little snippets of info so they do become curious... a crash course in communication really.

And I think I just became passionate about them, who they are what they think, what interests them – **Silvia, scientist**

I sign up every term as it is a great addition to help students engage with science. It also ticks an Ofsted box of helping disadvantaged students to relate what happens in the classroom to the real world. – **Teacher**

Thank you very much for answering all of our questions. we have learnt a lot today and we really appreciate it because it has truly inspired us to follow our dreams and not worry about all the bumps in the way – **Student**

love the live chats! It gives students the chance to ask anything and they really do! I have grown so much through my participation in this event! Thank You! – **Scientist**