Scimos

Our Solution to Science Inaccessibility

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As undergraduate students three years into our respective science degrees, I'm sure both of us like to think we know our apples from oranges, mitochondria from chloroplasts, and transcription from translation. This also means that at a time when health and disease have become dinner-time conversation and the forefront of the mainstream media, it has been hugely beneficial and empowering to understand the science around us. Unfortunately, this is not something that is always easy for people without a background in science.

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2020 has undoubtedly proven the importance of science being accessible and the issues that arise when it's not. At the peak of the pandemic, there were 'COVID-19' parties whereby people would gather in the hope of contracting the virus to develop immunity and people who died from injecting bleach; not to mention conspiracy theories ranging from 5G towers spreading the virus to the government filling vaccines with microchips in a bid to control the population. Science accessibility has always been important to us, mainly because we think science is amazing and everyone should have access to it; and that science can be even more interesting than what is taught in a classroom. But 2020 definitely put science accessibility into a new light.

Luckily for us, we're not the only ones who feel this way and who want to do something about it. So, back in September 2020, when we saw a new, student-run organisation had been set up that aimed to present science news in a brand new, more accessible way, we had to get involved!

Scimos (www.scimos.org) is an entirely student-led organisation (something we're very proud of!) created in May 2020 and launched in September. As of yet, we have twenty-five members, ranging from managers to writers, and we're continually growing, with numerous students expressing interest each month. The majority of us are University students from across the country, including Oxford, Durham, Newcastle and Liverpool. Currently, there are a total of 53 articles published on Scimos, spanning our Learn and News sections, covering articles on recent



Figure 1. The underlying concept of Scimos relies on integration of news and educational content. This will allow readers to explore more about areas that either interest them or aren't generally

developments, such as the COVID-19 vaccine or the SpaceX Starship Prototype SN8 test launch, and educational content from immunology to algebra, to name a few. In January 2021, we had a total of 2300 views on our website, and we cumulatively reached 2226 people through our Instagram and Facebook.

Science can easily seem intimidating, with complex words and equations that often limit its target audience. When it comes to science articles and educational content, the majority can be very long or difficult to understand, depending on who the reader is. A lot of the time, the point the author is trying to make relies on a concept that a layman reader won't be familiar with. Meanwhile, if an explanation for a specific notion is given, for example, 'special relativity', then to the physicist, and even the scientist, this clarification is unnecessary.

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Scimos solves this problem by integrating news and educational content, a principle that is unique to our website. This way, the article isn't overwhelming to those readers who aren't familiar with the topic, allowing the focus to be the news and its importance, and the article is concise enough for those with pre-existing knowledge to do the same. We aim to make science accessible to everyone, no matter their pre-existing knowledge, understanding or academic background.



This type of treatment is called **gene therapy**, and represents an exciting new way to treat many diseases that have a genetic component. However, there are many issues that need to be resolved before we can consider using technologies like CRISPR-Cas9 in humans. For one, mice are different from humans, so we can't be sure that this gene therapy will work in people. The effects of the therapy were long-lasting in the mice in this study, so we need to be sure that the technology is safe and effective before using it in humans. Gene there

are also very expensive to prod more research is needed before this available for humans, but the the treatments that could be us

Gene therapyThe process by which genes are placed into a patient's cell to replace missing or nonfunctional ones and treat genetic

Figure 2. One of the features of Scimos is our keyword system. This allows readers to click on the words in bold for an explanation or definition. This keeps our articles concise and to the point avoiding unnecessary explanation for those who understand the term, while still providing it for those who do not.

Within Scimos, we have a News and a Learn section to optimise our content for readers of all abilities. Our News section features breakthroughs and developments in science, highlighting what these mean for society. Articles are grouped into either biology, health, tech, physics or chemistry, and by integrating science news and educational content these are written in a way that aims to be interesting, exciting and educational.

In addition to news content, the site aims to offer a comprehensive breakdown of each area of science. This is via the Learn section, which allows readers to enhance their scientific knowledge. Our Learn section is broken down into topics, subtopics and articles across biology, chemistry, physics and maths. To provide content for a varied audience, we delegate a 'Tier' to each learn article. The three tiers represent different academic levels (as opposed to different COVID alert levels!), which ensures every article is accessible and appropriate. This also allows users to choose, and therefore only view the articles that are suitable to them.

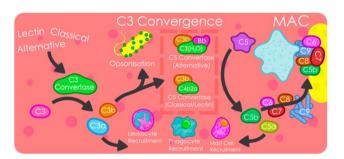


Figure 3. Many of our members also create images for the site, such as this one on the convergence of pathways in the complement system (as part of our Learn series on immunology). Using unique, eye-catching diagrams adds another dimension to our articles, supplementing our writing and helping to further explain concepts.

This means that those with an advanced level of preexisting knowledge don't have to read introductory articles with long-winded explanations, and vice-versa. Our Tier system is still a work in progress, and should be completely implemented within the next few months.

Our website is always changing and developing, and we have some exciting updates coming soon, including changes to our News section, and an entirely new section, the Explore section.

We are continually expanding, refining and recruiting, and we are looking forward to seeing just how far we can grow in 2021! Scimos has been a fantastic opportunity for us to improve our writing skills, further our scientific understanding and management skills, and increase selfconfidence, as well as serving as a great addition to our CVs.

It has also been extremely encouraging to see us already achieving some of the things we set out to do. For instance, one of the historical problems in science is diversity, with access to careers in science being heavily dominated by white males. As two women in science, something personally great to see is that almost two-thirds of followers on our social media accounts, and currently over 75% of our writers, are other women and girls!

We're continually growing and expanding our team. If Scimos sounds like a project you'd like to be involved with, please visit the "write for us" section on our website!