**The lack of diversity in science**

By Maryam Adow

**“Science knows no country, because knowledge belongs to humanity, and is the torch which illuminates the world” - Louis Pasteur**

Does the beauty of knowledge and the endeavour to know more intrigue and fascinate you? Do you feel enlightened at the complex nature of the human body or the infinite number of comets and asteroids and stars and galaxies that make up the endless expanse of light years that we call space? Does the timeless nature of life and the petrifying yet intriguing concept of dark matter and the placebo effect spark up unanswered questions that lure your curiosity and lead you to ask why?

By definition, science is the systematic study of the structure and behaviour of the physical and natural world through observation and experiment. Therefore, the study of science should be something that is equally represented and heard by all races and religions as observational and experimental qualities belong to virtually anyone that is determined to go out and make a difference to how science is seen.

 However, this is not the case as the underwhelming numbers of black scientists going into STEM and the disparities in degree outcomes are blatant as white students (35.7%) in 2018/19 were said to be twice as likely as black students (17.9%) to graduate with first class honours- according to the first Royal Society Ethnicity STEM data report. The report also showed higher non-completion rates among Black STEM students at 4.7% and 6.3% among postgraduates which is significantly higher than Asian and White students. This data shows how there is a clear lack of diversity within science and this can lead to Black voices and experiences being under represented and not heard which could contribute to many other social factors.

The impact of black voices and experiences being severely underrepresented and unreflective in science could act as a deterrent for many aspiring students, as they could potentially feel marginalised and deflated by the education system and the disturbingly low statistics could act as an unintentional barrier. Whilst researching this, I had realized how much of our science is taught through the lens and discovery of cis white men, and whilst any discovery in science is honourable and should be celebrated, the clear segregation of what is taught through our education system plays a crucial factor to what students feel as though matter. The lack of representation not only feeds into the idea of a hierarchy in science but also into the general institutionalised racism within the British education system that so many people feel strongly about every single day.

When we think of science, we tend to think and are taught about influential figures such as Albert Einstein, Isaac Newton and Stephan Hawking and whilst we can agree that they have had a monumental impact through their scientific teachings and findings, the limited diversity and inclusion of such few scientists of colour being actively taught stagnates any progress that has been done to create diversity within the British schooling system. Living in a multicultural and racially diverse country, students should feel represented through what they are taught and they should feel empowered by science relating to their own experiences regarding race, religion or ethnicity, not neglected and misrepresented.

So, how do we go about creating a safe and healthy environment in schools and in science, which will help students of colour feel represented and encouraged to go into science without any racial barriers. Well, the answer is not simple. Whilst many can agree that having specific dates and months such as Black history month teaches and informs students of specific topics and themes it is not enough to combat racial bias. Instead, we should aim to actively involve POC teaching and discoveries into our curriculum and show inspirational figures such as Percy Julian, Alice Ball and Walter Lincoln Hawkins alongside their white male counterparts. We should follow the examples and hear the struggles of individuals such as George Washington Carver, who was born into slavery and is known as the “father of the Peanut industry,” or Dorothy Johnson Vaughan who was the first African American who was a leading mathematical engineer and was supervisor for the ‘National Advisory Committee for Aeronautics (NACA).’

Science should be a universal and enlightening experience for all and race should not impact that. Instead we should work together to try and make it something that can be seen and heard from all nations and people around the world. We should aim to understand our world better and make incredible discoveries with the help of each other whilst erasing the stigma that science can only be understood by specific groups and instead uplift each other to understand the meaning behind everything around us. We should celebrate every contribution to science, as each contribution is a step closer to understanding our “why’s?” and hopefully we can make our world better and greater than it ever was. And finally, we should stop and encourage and inspire young, inspiring scientists especially if the odds are against them.

**"Science, for me, gives a partial explanation for life. In so far as it goes, it is based on fact, experience and experiment." - Rosalind Franklin**