

Can multiple sclerosis stem cell therapy clinical trials still be justified despite the ethical issues they pose?

EXTENDED PROJECT QUALIFICATION

ELLIE CHEN

ABSTRACT

This project assessed the ethical issues that researchers consider when conducting a stem cell therapy clinical trial for MS and whether or not the benefits of these trials outweigh the risks they pose. The project covers the ethical issues informed consent, sample bias, the use of stem cells, the economic side of clinical trials and the consideration of the greater good. The author formed arguments for and against these issues around the basis of different ethical viewpoints, such as Kantian ethics, utilitarian ethics, situation ethics, and virtue ethics, in order to give a well-rounded debate for each issue. The project evaluated these issues with different ethical theories applied to both sides of the debate to ensure that each issue was investigated thoroughly through an unbiased lens.

The author concluded that the ethical issues posed by a trial do not outweigh the possible benefits it could bring to MS patients and their families. Since there are many preventative measures in place to mitigate these issues, for example, ensuring participants are fully aware of the procedure's risks. In the future, many more procedures may be put in place to prevent issues posed by clinical trials. However, the procedures in place now are acceptable, and these issues should not prevent a better quality of life for MS patients. The author also concluded that as technology advances, researchers must utilise it in trials, rather than shying away from it as many trials up until the present day have done. The technology could allow trials to have a far greater outreach compared to the present day.

EXPERIENCE WITH EPQ

I took EPQ because I wanted an opportunity to research and develop a dissertation about something that interested me and that lay outside the scope of what my A-Level subjects offered. I also knew that I would end up needing to write a dissertation at some point, so there was no harm in picking up skills for writing one now. In the future, I hope to pursue a medical career; the knowledge I have gained from my EPQ about ethics will be invaluable in my future career path. One of the most important things I learnt was how to reference and analyse academic papers for information. I also learnt that it is also essential to build flexibility into my schedule in case I encountered any problems. Using my Gantt chart was one of the easiest ways to combat any issues that set me back as it laid everything out already, and I could see where I had some float time.

For anyone thinking of taking EPQ, if there is anything at all that you are interested in, you can do an EPQ about it. EPQ gives you an excellent opportunity to direct your learning about something that interests you without having a big exam about it at the end. And do not feel too discouraged if you have no idea what you want your EPQ to be on, you'll get over the initial slump and will feel a hundred times more motivated.

Should the UK Implement a Ban on the Use of the Greenhouse Gas Sulphur Hexafluoride?

By Sophia Bishop

ABSTRACT

The project aimed to come to a conclusion on whether the use of the sulphur hexafluoride should be banned. The project assessed the environmental, socio-economic and health related implications of the use of the greenhouse gas sulphur hexafluoride. The potential alternatives and their effects were also considered. The author found that the environmental effects were unsurprisingly negative as increased atmospheric concentration of SF₆ had large (and probably underestimated) contributions to climate change on a global scale. Socio-economically there was less corroboration between sources regarding the socio-economic impacts of SF₆ however the author concludes that from a socio-economic view point a ban should be placed on the use of the gas sulphur hexafluoride due to the wider socio-economic implications of banning the use of the gas. Regarding the health implications the author found that there were few cases of the negative impacts of SF₆ although the implications were significant. The author also found that sulphur hexafluoride was used within medical imaging and consequently decided that when evaluating its use from a medical/health view point the use of sulphur hexafluoride should not be banned.

Ultimately, the author concluded that a ban should be implemented on the use of the greenhouse gas sulphur hexafluoride however more research would have to be done into potential alternatives for both use in insulation and in medicine in order to make the application of a ban viable.

EPQ EXPERIENCE

I took EPQ because I saw it as an opportunity to improve skills that I would be able to transfer to later life specifically to within university studies. Before starting EPQ I really did not know anything about the topic that I decided to pursue, and I really loved the opportunity to read into something in detail that was not on any of my A level syllabuses. My IT skills have improved tremendously throughout the project, especially on Microsoft word, I also gained a lot of experience using skills such as referencing, reviewing sources, as well as abstract, discussion and evaluation writing, which I have already begin to apply in my geography course work and I am sure I will be able to apply throughout my university degree as well. The highlights of my EPQ experience defiantly included being able to research at topic that I was interested in, and it was always quite a nice change

working on my EPQ in comparison to my other A level subjects. In addition I found that EPQ was flexible as it is independent work and you can really work in a way that is best for you, for example, I knew I worked better when I worked in large chunks rather than doing it by bit therefore most challenged within the subject could be overcome quite easily.

A concluding comment for someone thinking of taking EPQ:

I could not recommend doing an EPQ enough, its honestly the biggest thing I would recommend doing when starting at sixth form. I have found it made such a difference to my studies having a side project on a topic that I was really passionate about and genuinely enjoyed doing. In addition all the university open days I attended said that if a candidate had an EPQ it was it was a really positive sign, furthermore many of the universities I looked at will drop the entry grade requirements for candidates who have an EPQ. My biggest tip would be to try and get as much done in lower sixth as possible as it starts getting a bit hectic in upper sixth with UCAS applications, workload, and course work. Also, I have found it quite useful completing an EPQ on something that was related to the degree I wanted to do as you can then incorporate in your personal statement etc. however this is by no means necessary it is far more important to complete it on something you are genuinely passionate about as you are far more likely to be motivated to work on it and enjoy completing the project.