

Course work on nanotechnology and biotechnology

[Sociology](#), [Ethics](#)



\n[[toc title="Table of Contents"](#)]\n

\n \t

1. [Nanotechnology paper by Street G. \(A review\)](#) \n \t
2. [The paper on nanotechnology and environmental biotechnology](#) \n \t
3. [References](#) \n

\n[/toc]\n \n

Nanotechnology paper by Street G. (A review)

Biotechnology and nanotechnology are two different field that are somewhat related. This association between the two is not something that could be easily describes but it very important to know that the revolution in technologies plays an impact in linking the two fields together. This paper presented by Street (2000) evaluates the two fields and their important innovations, the relationship between the two and the importance various industries, business and academics fields.

The paper considers the views regarding both nanotechnology and Biotechnology, the relationship of nanotechnology and biology and the relationship with the immediate environment. The limitation of this paper is that is not specific in its view on that link between the fields it's tried to link together. It also does not expand further on such relationship between the fields for readers and further researcher to have further understanding in such areas of studies.

The researcher is also considering nanotechnology to be solely dependent on biotechnology. This the researcher portrays to be the result the interaction between nanotechnology and biotechnology. This was seen as benefits of

nanotechnology being only achievable with the sole contribution of biotechnology.

Those nanoparticles are found to have certain potential properties that make them possess their enormous functionality. Some of this characterization which is their ability to influence uptake, their rate of distribution and their behavior in human body all influence their role and functions. The article also emphasizes the surface-to-mass ratio of nanoparticles that is very high as one of the major properties that also makes them very reactive in human body.

The major question that needs to be asked is that all those properties are not indicated in the toxicity that are linked with nanoparticles. The paper did not really describe such properties responsible for the toxicity.

The paper on nanotechnology and environmental biotechnology

An important ethical issue in view of nanotechnology and environmental biotechnology is that of the health effects that could be caused by those nanoparticles. This is because such particles are usually spread easily throughout the air because of their lighter weight. The long-term effects that could be associated with this are that of the lung problems. It was linked by the paper to various forms of environmental pollution. Another important environmental effect is on the blood system where it causes toxicity and clotting of the blood and damage to the blood cells.

This paper shows the effects of the nanoparticles on the human health and the environment. Although those highlighted points raise ethical and societal questions regarding the environmental implications of nanotechnology

<https://assignbuster.com/course-work-on-nanotechnology-and-biotechnology/>

and the role of biotechnology in the novel field, it really does not show if all those health effects are really confirmed. However, it linked those nanoparticles to such damages and it must be monitored when in use. Another important merit provided by this research is that it would provide a basic understanding towards the health effects of the technology for those researchers in such field and those planning to carry out further research on nanotechnology.

References

Charles, S. W. (2009). Nanotechnology-Related Environment, Health, and Safety Research: Examining the National Strategy. PubMed Central. Environ Health Perspect. 2009 April; 117(4): A158-A161.

Street, G. (2000). Nanotechnology + Biotechnology = Sustainability. The Many Facets of International Education of Engineers.

Retrieved 2 May, 2011 from [http://www. eng. metu. edu. tr/pages/SEFI/viskas/sefi06. pdf](http://www.eng.metu.edu.tr/pages/SEFI/viskas/sefi06.pdf)