



UNIVERSITY OF NAIROBI MICROBIOLOGY AND BIOTECHNOLOGY STUDENTS' ASSOCIATION

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3rd March 2015

A REPORT ON THE ACADEMIC TALK HELD AT THE EXAMINATION CENTRE (CBPS-SOB1) ON 26TH FEBRUARY, 2015 FROM 10.00AM-2.00PM.

Theme: Ethical controversies in Biotechnology

Facilitators: Caroline Kithinji Bsc, MSc, DLSHTM, Fellowship JHSPH, CIP- KEMRI
Peter Munyaka:- Kenya Youth Biotechnology Network (KYBNET)

Introduction

The fundamental organization of the academic talk being part of NUMSA's key objectives to creating a platform of acquainting students in their study field of Microbiology and Biotechnology, culminated on this day where the members were broad on board to a public lecture given by Ms. Caroline Kithinji (KEMRI) on "Ethical issues in Biotechnology" and Peter Munyaka (KYBNET) who expounded on the importance of biotechnology and young scientist innovations. This gave a ground in understanding the major applications of biotechnology, the ethics and the controversies pertaining the field. Later, there was a heightened debate where members discussed profoundly on the controversial issues arising in the field.



Group photo outside the venue.....

Biotechnological application and ethical issues

Mrs. Caroline Kithinji was able to highlight that bioethics is a field of study concerned with the **ethics** and **philosophical implications** of certain **biological** and **medical procedures, technologies, and treatments**, such as organ transplants, genetic engineering, and care of the terminally ill. Students learned that it does not necessarily mean that when a scientist has the capability, the bioethics needs to be considered in any venture.



Ms. Caroline Kithinji(KEMRI) presenting.....

The students were taken through some of the practical ethical theories such as: **Reasonable Person Utilitarianism and Quasi-Categorical Imperative** and the four fundamental questions applied which are:

- Who is affected by the action?
- How are those people affected?
- Which alternative is likely to be the best?
- Are the mental states including but not limited to intentions and motives, of the agent(s) performing the actions primarily good?

The speaker expounded on Biotechnology, its application and benefits. She focused on two areas under biotechnology which were **stem cell research and genetically modified organisms (GMOs)**. Some of the benefits noted on GMO and stem cells applications were:

- High yields
- Pest and disease resistance
- Drought resistance.
- Cancer treatment
- Parkinson disease management
- Production of important proteins such as insulin
- Heart failure treatment and other therapeutic uses

However, few controversies of these applications were pointed, for instance, what are the intentions and who is affected? In addition, the religious views and scientific innovation lift on where life begins, should the growing embryo be terminated in order to obtain stem cells from its inner mass? These contradicting views led to a heightened debate thereafter.

Debate on the controversies

The debate was based on GMO and stem cell research. The revolving questions were; are we ready for GMO? Is there any alternative? Do benefits of GMO outweigh the harmful effects? Who should be given the priority when cloning? Is IVF right? What is the intention of stem cell research?



Debate in progress.....

KYBNET

KYBNet is a youth network under the BIOAWARE program that aims to engage youth in biosciences and biotechnology awareness, facilitate mentorship and stimulate life sciences entrepreneurial ventures among the youth in Kenya.



Mr. Munyaka (KYBNet) as he presents

The key note was on the importance of educating youth on biotechnology and they are offering platforms that will engage likeminded clubs such as NUMSA as a collaborative partner in achieving its goals.

Conclusion

The enthusiasm and appreciation expressed by all who attended the talk was a great encouragement. Not only was it a brain storming session but also an eye opener for most students who did have less knowledge concerning bioethics and the controversies arising in the field of biotechnology in the society. We were all challenged as scientists that even though we are able to do it, is it ethically right?

Recommendation

NUMSA club in collaboration with the biological school should create more of such events where all students can engage in discussion of what is out there apart from theoretically life they are engraved in.

Acknowledgement

We would like to acknowledge the school administration for their moral and financial support, our patron Dr. Maina Wagacha for his continued moral support the event a success. We also appreciate our esteemed members for turning up in large to tap from the great resource and knowledgeable forum.



Report compiled by:

Secretary..... sign.....date.....

Chairperson.....sign..... date.....

Member..... sign..... date.....