### Asian Journal of Microbiology and Biotechnology

3(2): 46-52, 2018 ISSN: 2456-8341



# BIOSAFETY, BIOREGULATION, AND BIOETHICS IN BIOTECHNOLOGY- A MULTIFACETED REVIEW

## LESTER WOLLIS $^{\rm l}$ , SHERMAN RYNER SUHAIBUN $^{\rm l}$ , TAPASH RUDRA $^{\rm l}$ AND FARHAT A. AVIN $^{\rm l*}$

<sup>1</sup>Department of Biotechnology, Faculty of Science, Lincoln University College, Malaysia.

#### **AUTHORS' CONTRIBUTIONS**

This work was carried out in collaboration between all authors. Authors LW and SRS wrote the first draft of the manuscript. Author TR reviewed and edited the manuscript and author FAA designed the study, managed the literature searches, reviewed and edited the final draft of the manuscript. All authors read and approved the final manuscript.

#### ARTICLE INFORMATION

Editor(s)

- (1) Anil Kumar, Devi Ahilya University, India.
- (2) Chung-Jen Chiang, China Medical University, China.

Reviewers.

- (1) Suresh Kumar, ICAR-Indian Agricultural Research Institute, India.
- (2) Dinesh Kalra, Punjabi University, India.

Received: 23<sup>rd</sup> February 2018 Accepted: 8<sup>th</sup> June 2018 Published: 14<sup>th</sup> June 2018

Review Article

#### ABSTRACT

Biosafety and bioethical regulations are of utmost importance in the field of modern biotechnology, especially when the laboratory and safety issues are concerned. With the advent of new biotechnological products, we can now produce wonders as all these products speak volumes for themselves. However, underneath all these novelties there lie the potential biohazards. Therefore, to have these prodigious tools of modern biotechnology in our repertoire we must strongly focus on a sound ambiance of biosafety, bioethical environment that might protrude us to have the optimal implications of biotechnology as a whole. Moreover, we would achieve proper commercialization of these modern products if we could be able to regulate their potential to harm the community and what we call the bioregulation.

Keywords: GMO; genetic engineering; rDNA technology; plant; animal.