

International Conference on

## **APPLIED MICROBIOLOGY AND MICROBIAL BIOTECHNOLOGY &**

International Conference on

## **MICROBIOME R&D AND BIOSTIMULANTS &**

3<sup>rd</sup> International Conference on

## **INTERNAL MEDICINE & HOSPITAL MEDICINE**    October 15-16, 2018    Ottawa, Canada

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### **Heavy metals & Metal-organ frameworks for breast cancer patients: Curse or Treatment**

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Due to the hazardous effects on human health and the environment, toxic pollutants such as heavy metals (HM) and metal-organic frameworks (MOF) are creating a huge dilemma for the healthcare industry and throughout the world. The long-term exposure of these HM may precipitate several cancerous conditions, including the breast cancer. Recent studies reveal that HM and MOF that surpass the sorption capacities of the human body can cause breast cancer. But on the other hand, HM are essential nutrients and are a part of our body while several studies suggest that MOF may be helpful in the effective treatment and reversal of breast cancer. Moreover, gold and silver nanoparticles proved to be quite promising for the treatment of the breast cancer. This study focuses on the mechanistic approach of the exchange or sorption capacities of HM, MOF and their interaction with the breast cancer cells for the effective treatment of the disease. The future aspects regarding the research and development of MOF and HM-based nanoparticles, hydrogels, and other drug delivery systems are also discussed.

#### **Biography**

Fazal Rehman is an upcoming graduate of Health Diploma from Udhya Institute of Medical Sciences, Swat, Pakistan. Also, he has published 4 papers in reputed journals. He is ardently engaged in efforts of bringing novel, innovative and radical biotechnologies to open access equally favoring the idea of responsible conduct, understanding the potential of biotechnology and synthetic biology. He loves blogging for various life extension forums and volunteering as a scientific adviser for various biohacking projects.

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