

RESEARCH AND SCOPE IN THE PHARMACEUTICAL SECTOR

On 9th August 2023, the Department of Chemistry of St. Joseph Vaz College in collaboration with RDC held a talk on the prospects in the pharmaceutical sector for budding Chemistry students. The talk was delivered by *Dr. Andrew J. D'souza, Asst. Professor in Chemistry from St. Xavier's College, Mapusa*. He conveyed the scope and important aspects which extends beyond employment as individuals can also opt for higher education.



DETECTION OF IMPURITIES IN PHARMACEUTICAL DRUGS

Analytical method development plays a pivotal role in drug discovery, generic product development and manufacture of pharmaceuticals. Method development is the process of identifying a set of parameters for desirable analytical performance. *Dr. Melwin D'souza, Asst. Professor in Chemistry* of our institute gave an overview of various analytical techniques including chromatographic and spectroscopic methods. On 19th August 2023 and 09th September 2023 and every Saturday, we learnt to browse through research papers citing different techniques for the detection of impurities in drugs. He made us familiar to a number of websites which are freely accessible for literature survey such as pubmed, Shodhganga, google scholar. The links and websites were very useful for the students to gather extensive literature on water analysis. This was concluded by a brief on method development; a process of designing and optimizing procedures, protocols or techniques for conducting experiments or analyses in a laboratory or research setting.



FOOD ADULTERATION: THE HIDDEN DANGER



In the realm of food safety, this workshop shed light on the menacing practices of food adulteration. It uncovered the various ways in which corrupt individuals compromise the integrity of food supply. Every individual should be aware of the type of adulterants and their harmful effects, to protect ourselves from health hazards.

1. Detection and Prevention: Educate individuals to detect food adulterants. Take preventive measures and exercise on identifying adulterated food.
2. Health Risks and Consequences: Raise awareness on the health hazards associated on consuming adulterated food.

TALK ON "HOW TO WRITE RESEARCH PROPOSALS FOR FUNDING"

On 28th August 2023, St. Joseph Vaz College organized a talk on the topic " Grant writing and Academics Research Writing Proposal for Research Projects". The event was in association by the RDC cell, IQAC , Chemistry and Library Departments. The invited speaker for the session was *Dr. Hari Kadam, Asst. Professor in Chemistry, Goa University*. He explained the essential role of research funding in the realm of academic and scientific pursuits. He guided us on the importance of securing funding as crucial to turn ideas into actual research projects. He also made us aware of the different schemes which are aimed at encouraging women and supporting the girl child in families to pursue a career in research.

LAB SAFETY

Lab Safety is a critical aspect of working in a laboratory to ensure the well being of individuals and integrity of experiments. Adhering to proper safety protocols and guidelines is essential to prevent accidents, injuries and burns. Lab safety is a shared responsibility and everyone in the lab must prioritize to minimize risks and ensure a safe working environment. The key principles and practices of lab safety to be practiced as good laboratory ethics.

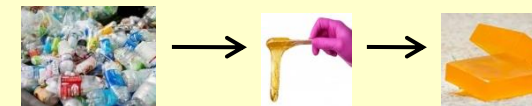


SOAP MAKING

The process of making soap is saponification, Done using vegetable/coconut oils, a strong base and water. The different types of commercially available soaps include for cleaning, laundry, medicated, aesthetic, liquid soaps and floor cleaners. It is mandatory to follow the specific soap making recipes and safety aspects with the aid of experienced personnel. Under the expert supervision of Ms. Angela Serrao, Asst. Professor in Chemistry, the students prepared sandalwood, neem and lavender soaps of medicinal and aesthetic value.



UPCYCLE 130 GRAMS PLASTIC WASTE TO 100 GRAMS SOAP



As plastic waste continues to accumulate, chemists are focused on finding ways to reduce the adverse global effects. The very recent article by Virginia Tech. led by *G. Liu* reports the transformation of municipal waste polyethylene (plastic) to waxes followed by subsequent processing to fatty acids and finally surfactants (soap). As a economically viable approach.

Reference: Z. Xu, N. E. Munyaneza, Q. Zhang, M. Sun, C. Posada, P. Venturo, N. A. Rorrer, J. MiscallB. G. Sumpter, G. Liu, Science 381 (2023) 666-671.
[Doi 10.1126/science.adh09](https://doi.org/10.1126/science.adh09)