REPORT ON WEBINAR-5

Topic of the Event - Physicochemical Properties and Drug Design

Date &Time of Event - April, 01, 2021, 11 AM

Hosted by- Sarojini Naidu Vanita Pharmacy MahaVidyalaya, Tarnaka, Hyderabad

Summary

Sarojini Naidu Vanita Pharmacy MahaVidyalaya, College for Women, (Sponsored by The Exhibition Society) organized a webinar on the topic "**Physicochemical Properties and Drug Design**" on 1st April 2021.The Guest Speaker for this webinar was Prof. A. Raghuram Rao, Former Dean, Faculty of Pharmaceutical Sciences, Kakatiya University, Warangal, Telangana State.

The number of participants registered 600 and attended the seminar were 500.

The programme started with the welcome address was given by our Principal Dr. V. Jyothi inviting our guest speaker Prof. A. Raghuram Rao garu.

Dr.N.Srinivas, Director and Dr. T. SarithaJyostna, Vice Principal shared their experiences about speaker. Dr. S. Anuradha Bai introduced the guest speaker to the participants which was followed by the session.

The lecture was aimed to understand the basic concepts related to drug design, such as.

- Physico-chemical properties in relation to biological action.
- How complicated biological processes can be modelled using simple physicochemical properties.
- Role of Lipinski's rule-of-five in design of drug compounds amenable to delivery via the oral route.

The session was concluded by our chairman, Dr.B. Prabha Shankar garu, by expressing his gratitude and appreciation for Prof. A. Raghuram Raogaru. The participants clarified their doubts regarding the session.

Finally the vote of thanks was given by Asst. Prof.Mrs.K.Vinutha, who thanked the guest speaker and all the participants for making this webinar successful.

1. Polyphenols are a group of chemical substances found in plants, characterized by the presence of more than one phenolic unit in molecule.

Classification- 1. Phenolic acids and derivatives 2. Flavonoids 3. Stilbenes 4. Lignans

2. **Tannins-**Exerts its biological effects in 2 different ways

a. As unabsorbable complex structure with binding properties produce effect in GIT.

b. As absorbable tannins and absorabable metabolites from colonic fermentation of tannins produce systemic effects in various organs.

Phytic acid is a unique natural substance found in plant seeds. It has received considerable attention due to its effects on mineral absorption. **Phytic acid** impairs the absorption of iron, zinc and calcium and may promote mineral deficiencies

3. **a**. Phtosterol produce health benefits in animals/humans such as reduction of cholesterol levels with decreased risk of coronary heart diseases, antiinflammatory activities and induction of apoptosis in cancer cells.

b.The phytoestrogens have been found to be beneficial in combating symptoms and conditions caused by estrogen deficiency

4. **a**.Hydrolysis of glucosinates by myrosinase and formation of isothiocyanates.

b. When garlic is chopped or crushed, the enzyme alliinase converts alliin into allicin.

5. Lectins are sugar-binding proteins, which easily attach to red blood cells to cause agglutination. These anti-nutrients are mainly found in foods which are consumed in raw forms . Cereals and legumes generally contain lectins,