



November 21, 2017
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Upcoming Activity

Bi-Weekly Academic Activity

Date: November 29,
2017 Wednesday

Time: 1pm-3pm

Venue: Staff's activity
hall in the 2nd floor
opposite the Dean's
Office

Activity 1: Lung
Cancer Awareness
Month - Dr. Ashraf/Dr.
Mohamed Ali

Activity 2: World
COPD Day - Dr. A.
Ahmad/Dr.
Fakhraddin

Activity 3: Curriculum
in a Venezuelan
University- Dr.
Orlando

Activity 4: Strategic
Planning- Dr.
Maghrebi

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MedEdu Tabuk

Weekly Newsletter

Department of Medical Education, Faculty of Medicine,
University of Tabuk

HEALTH RELATED WORLD COMMEMORATIVE DAYS



Commemorative days on Medical issues are basically Health awareness campaigns. These "Days" show people that certain medical issues exist and apprise the populace about what the medical world is doing to address them. Campaigns help in a variety of ways. For example, the various support that comes from the campaigns gives more confidence to the afflicted individual and others concerned including relatives and health workers. Awareness raised help garner ideas and funds to better address the issue at hand.

Teachers and students of Faculty of Medicine have the opportunity to have a significant impact on celebrating these Commemorative Days. They can help maximize the effects of the campaigns to the fullest and raise as much awareness among the public as possible. Faculty of Medicine has taken steps to celebrate 32 health days identified to be important by MOH and relevant for our community. Faculty and students will work together in groups to observe these days. Social media, public awareness campaign and other methods will be used to create public awareness. Last week on November 15th, Wednesday 2017 the inauguration of the campaign started with **"World Diabetes Day"** and **"World Antibiotic Awareness Week"**.

The Antibiotic Resistance and its Impact on Global Health Care

Dr. Thomas Antony Thaniyath, Department of Pharmacology.

The discovery of penicillin in 1928 by Alexander Fleming and its introduction in the 1940s for therapeutic use, has been recognized as one of the greatest advances in medical therapeutics. Since then, antibiotics have transformed modern medicine and saved millions of lives. However, the emergence of antibiotic-resistant organisms, creates a major challenge to the medical community as well as the general population globally. In a study it is estimated that 480,000 people develop multi-drug resistant TB each year, and drug resistance is starting to complicate the fight against HIV and malaria, as well, globally.

The emergence of antibiotic resistance has been attributed to the overuse and misuse of these medications, as well as a lack of regulatory requirements on the use of antibiotics. Antibiotic-resistant infections place a substantial health and economic burden on the global health care system and population. Nationwide as well as globally coordinated efforts to implement new policies on antibiotic prescription, dispensing and use, apart from renewed research efforts, and pursue steps to manage the crisis are greatly needed.

In this context, in May 2015, the World Health Assembly adopted a Global Action Plan on Antimicrobial Resistance, with five key objectives to: 1) Improve awareness and understanding of antimicrobial resistance, 2) Strengthen the knowledge and evidence base, 3) Reduce the incidence of infection, 4) Optimize the use of antimicrobial medicines, 5) Develop the economic case for sustainable investment. The responsibilities to overcome this major global challenge lie on all the governments of the nations and all citizens of the world, by avoiding unnecessary, irrational use of antibiotics.

FACULTY DEVELOPMENT PROGRAM: Flipped Classroom

There is increased interest towards teaching methodology that encourages higher-order thinking and active participation from students. One such method that has garnered much attention is the flipped classroom (FC). In a traditional classroom, foundational knowledge is passively transferred to students during class through the means of a lecture delivered by instructors. Following the lecture, students use and apply this knowledge outside the classroom setting. The FC is an approach in which the tasks completed inside and outside of the classroom are opposite to what occurs in a traditional classroom. Foundational knowledge is gained by students through self-paced learning prior to class. Knowledge application and problem solving then occur inside the classroom through instructor-facilitated learner-centered activities. It is suggested that the FC promotes the integration of independent learning and use of technology outside the classroom, and learner-centered activities and more efficient student-teacher interactions inside the classroom. However, some commentaries have raised concerns about FC. These concerns call for research focusing on the learning outcomes of FCs in medical education. The primary goal of this review by Chen et al. is to expand our understanding of the claims made about the effectiveness of the FC in medical education by reviewing the current body of research. It is one of the "Most Accessed" article in the Journal Medical Education in 2017. Link to article [Flipped Classroom Chen et al.](#)

READER'S CORNER: Effect of Blocking L-Type Calcium Channels on Bone in Ovariectomy Model of Osteoporosis in Rats

Dr. Moustafa H. Abdelsalam, Department of Physiology

The impact of calcium channel blockade on osteoporosis is still controversial. This study investigated effect of calcium channel blockers on bone metabolism in an ovariectomized rat model of osteoporosis.

50 female white albino rats were divided into 5 equal groups: Sham operated control, ovariectomized, Ovariectomized + Diltiazem treatment, Ovariectomized + Verapamil treatment and Ovariectomized + Amlodipine treatment groups. At the end of the experiment, femora were examined for length, dry weight wet weight, ash weight calcium and phosphate levels. Serum concentrations of calcium, phosphate, osteocalcin (BGP), Carboxy-terminal collagen crosslinks (CTX) and alkaline phosphatase activity (ALP) were measured.

Treatment for eight weeks with calcium channel blockers induced a significant increase in bone-dry weight, ash weight and bone calcium content reflecting an increase in bone density and mineral content compared with control groups. They also significantly decreased serum concentrations of calcium, phosphate, osteocalcin, carboxy-terminal collagen crosslinks and alkaline phosphatase. However, amlodipine treated animals had significantly lower bone-dry weight, ash weight and bone calcium content and significantly higher serum concentrations of calcium, phosphate, BGP, CTX and ALP when compared with the other two CCB groups.

Conclusion: All the examined types of calcium channel blockers have possible beneficial effects in osteoporotic animals. However this beneficial effect was less prominent in the dihydropyridine (Amlodipine) subtype. **Link to article [Osteoporosis in Rats](#)**