

A Brief Report on Journal Club organised by Department of Pharmacy

To implement the agenda of Integral University Research Initiative (IURI), Department of Pharmacy has initiated the Journal Club of Faculty of Pharmacy with objective to establish a platform for the development of literature evaluation skills, article writing skills, and new research ideas in the field of pharmaceutical sciences amongst students, researchers and teachers. It is being conducted fortnightly. The members of the Journal Club are Dr. Abdul Hafeez (Faculty Coordinator), Dr. Mohd Ahmad (Faculty member), Rufaida Wasim (Student coordinator) and Naureen Rizvi (Student member).

FIRST PRESENTATION (HELD ON 10/09/2022)

The first Journal Club meeting was organized on 10/09/2022 at 10:40 A.M. (PLRA-12, Department of Pharmacy). The program was started with the address of Prof. (Dr.) Syed Misbahul Hasan, Dean, Faculty of Pharmacy. He explained the objectives of research discussions in such forums with emphasis on critical literature evaluation skills and article writing. He also described the importance of Journal Club meetings which lead to quality research works and publications.

Dr. Tarique Mahmood Ansari, Head, Department of Pharmacy, also shared his views and emphasized the importance of research discussions for the formulation and execution of research ideas.

The first Journal Club presentation was given by **Mrs. Manvi, Ph.D. Scholar, Department of Pharmacy**. She presented a research article entitled “**Pharmacognostic evaluation of Artemisia maritana L. a highly medicinal species of Artemisia,**” published in the journal Saudi Journal of Biological Sciences in 2022. The paper focused on the microscopic characterization of Artemisia maritana L. and its *in vitro* and *in vivo* biological evaluation. She discussed the methodology, observations and results of the research article. She also discussed various shortcomings of the article. Followed by the presentation, a discussion was conducted by taking questions from M.Pharm. and PhD research scholars and inputs/suggestions from the faculty members.

Dr. Abdul Hafeez, Faculty Coordinator, Journal Club, Department of Pharmacy, presented the vote of thanks. He also shared his views on importance of literature analysis and its importance in generation of ideas for future research works.

SECOND PRESENTATION (HELD ON 24/09/2022)

The second presentation of the Journal Club of the department of pharmacy was organized on 24/09/2022 at 10:40 A.M. (PLRA-12, Department of Pharmacy). The presentation was given by **Mr. Aamir Anwar (Ph.D. Scholar)**, He presented a research article entitled **“Effect of gervital in attenuating hepatotoxicity caused by methotrexate or azathioprine in adult albino rats”** published in the journal Environmental Science and Pollution Research in **2022**. The paper focused on the Methotrexate (MTX) and azathioprine (AZA) as chemotherapeutic, antimetabolic, and immunosuppressive agents with substantial risks such as oxidative lesions to the liver. Grape seed extract (GSE) administration was able to protect liver against the toxicity induced by MTX and AZA. It was concluded that GSE supplementation could be considered as a promising antioxidant in reducing OS and histopathological and ultrastructural alterations induced by MTX and AZA. Followed by the presentation, discussion was conducted by taking questions.

THIRD PRESENTATION (HELD ON 15/10/2022)

The third presentation of the Journal Club of the department of pharmacy was organized on 15/10/2022 at 10:40 A.M. (PLRA-12, Department of Pharmacy). The presentation was given by **Ms. Aditya Singh (Ph.D. Scholar)**. She presented a research article entitled **“Formulation, optimization and evaluation of curcumin- β -cyclodextrin-loaded sponge for effective drug delivery in thermal burns chemotherapy”** published in the journal Drug Delivery in 2016. The paper discussed the role of curcumin- β -cyclodextrin-loaded sponge on burn wound healing in rats. Curcumin- β -cyclodextrin complex was prepared by the solvent evaporation encapsulation method. Molecular inclusion complex of curcumin- β -cyclodextrin was incorporated into gelatin sponge. The developed sponge was characterized for drug entrapment, drug release and morphology. The biological activity of optimized formulation was determined on burn wounds which were made on rats. The burn wound healing efficacy was analyzed through physical and histological changes observed at the wound sites. There was a significant decrease in the rate of wound contraction in experimental groups than the control group. Followed by the presentation, discussion was conducted by taking questions.

FOURTH PRESENTATION (HELD ON 29/10/2022)

The fourth presentation of the Journal Club of the department of pharmacy was organized on 29/10/2022 at 10:40 A.M. (PLRA-12, Department of Pharmacy). The presentation was given by **Mr. Mohammad Owais (Ph.D. Scholar)**. He presented a research article entitled **“Designing quinoline-isoniazid hybrids as potent anti-tubercular agents inhibiting mycolic acid biosynthesis”** published in the journal *European Journal of Medicinal Chemistry* in 2022. Isoniazid is a cornerstone of modern tuberculosis (TB) therapy and targets the enoyl ACP reductase InhA, a key enzyme in mycolic acid biosynthesis. InhA is a promising target for the development of new anti-TB drugs. In this article design, synthesis, and anti-tubercular activity of new isoniazid hybrids were discussed. Among these, 1H-1,2,3 triazole-tethered quinoline-isoniazid conjugates 16a to 16g exhibited high activity against *Mycobacterium tuberculosis* with minimal inhibitory concentrations in the 0.25-0.50 µg/mL range and were bactericidal *in vitro*. Importantly, these compounds were well tolerated at high doses on mammalian cells, leading to high selectivity indices. The hybrids were dependent on functional KatG production to inhibit mycolic acid biosynthesis. Moreover, overexpression of InhA in *M. tuberculosis* resulted in high resistance levels to 16a-16g and reduced mycolic acid biosynthesis inhibition, similar to isoniazid. Followed by the presentation, discussion was conducted by taking questions.

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INTEGRAL UNIVERSITY RESEARCH INITIATIVE (IURI)

JOURNAL CLUB

OBJECTIVES

- To develop critical literature evaluation skills
- To improve practices of article writing and analytical skills
- To formulate ideas for future research work
- To discuss disagreements related to research work





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