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Journal of Medicinal Chemistry deals with the study of pharmaceutical analysis and the chemical analysis of compounds for the medicinal value. It also involves developing new chemical entities or compounds from existing agents, which are of medicinal and therapeutic significance. The current medicinal chemistry Volume 6, Issue 7, of the journal publishes 11 research articles, mini review and review article which are relevant to the current interest of medicinal chemistry.

Venkatesh et al. in his research article reported the synthesis of novel series of 5-[1,3-bis (4- substituted phenyl) prop-2-en-1-ylidene]-2-thioxodihydropyrimidine-4,6(*1H, 5H*)-diones (5a-k). The method employed for this study was the Knoevenagel condensation of different chalcones (3a-k) with thiobarbituric acid using acetic acid as a catalyst in ethanol. The findings of the investigations are found to be significant, since the synthesized compounds showed the promising free radical scavenging and Fe^{+2} ion chelating activity [1].

Novalić et al. study discussed the agents and approaches of the lytic induction therapy for epstein-barr virus associated malignancies [2]. Research article of Anacona et al. had an objective to prepare a family of new metal coordination compounds of Mn, Co, Ni, Cu and Zn with a Schiff base derived from the condensation of cephalexin antibiotic with 1,6-hexanediamine. Other authors tried to investigate its potentiality as an antibacterial compound [3].

Kumar et al. in his study tried to synthesize 2,5-disubstituted-1,3,4-oxadiazole derivatives via oxidative cyclization of various synthesized aroylhydrazones by (diacetoxyiodo)benzene in dichloromethane under mild reaction conditions. The synthesized compound aroylhydrazones have showed good DNA photocleavage activity in comparison to their corresponding oxadiazoles [4].

Hassan et al. with the aid of high throughput screening investigated *in vitro* anti-mycobacterial activities of dispiropyrrolidine derivatives along with their intermediates bisarylidenepiperidones [5]. Wang et al.'s research findings discussed an improved synthetic method for n-butyl-1-deoxynojirimycin. This study could serve as an excellent solution to the synthesis of various N-alkyl substituted chains DNJ, and further which can be even applied to large-scale production [6].

Mini review article of Nanduri et al. envisaged on the topic entitled mouse models of colorectal cancer-derived circulating tumor cells [7]. A study of Liu H et al, synthesized five new phenolic glycosides, liparisglycoside K-O (1-5) and one known compound, 4-allyl-2,6-dimethoxyphenol glucoside from whole plant of Liparisodorata. The structure of 6 compounds was elucidated by advanced spectroscopic methods including UV, IR, MS, 1D- and 2D-NMR and their application prospective were reported [8].

A study of Parshad et al. had synthesized a series of polyhydroxycoumarin derivatives, that are analogs of naturally occurring compounds. They were subjected to the antioxidant activity using DPPH and ABTS methods as well as *in vitro* lipid peroxidation inhibition assays [9]. Research investigation of Balaji KS, et al., discussed the angio suppressive effect of clitoriaternatea flower extract is mediated by hif-1α and down regulation of vegf in murine carcinoma model [10].

References

1. Venkatesh T, Bodke YD, Kenchappa R, Telkar S (2016) Synthesis, Antimicrobial and Antioxidant Activity of Chalcone Derivatives Containing Thiobarbitone Nucleus. Med chem (Los Angeles) 6: 440-448.
2. Novalić Z, Rossen TM, Greijer AE, Middeldorp JM (2016) Agents and Approaches for Lytic Induction Therapy of Epstein-Barr Virus Associated Malignancies. Med chem (Los Angeles) 6: 449-466.
3. Anacona J, Pineda Y, Bravo A, Camus J (2016) Synthesis, Characterization and Antibacterial Activity of a Tridentate Schiff Base Derived from Cephalexin and 1,6-Hexanediamine and its Transition Metal Complexes. Med chem (Los Angeles) 6: 467-473.
4. Kumar V, Kumar M, Beniwal V, Gupta GK, Kumar S, et al. (2016) Synthesis of Some Aroylhydrazones and 2,5-Disubstituted-1,3,4-Oxadiazoles as DNA Photocleaving Agents. Med chem (Los Angeles) 6: 474-485.
5. Hassan MZ, Ali MA, Osman H, Kumar RS, Arumugam N (2016) Design, Synthesis and Antimycobacterial Activity of Dispiropyrrolidines Derivatives. Med chem (Los Angeles) 6: 486-491.
6. Wang J, Zhao Y, Zhao W, Wang P, Li J (2016) An Improved Synthetic Method for N-Butyl-1-Deoxynojirimycin. Med chem (Los Angeles) 6: 492-496.
7. Nanduri LK, Garcia S, Weitz J, Schölch S (2016) Mouse Models of Colorectal Cancer-Derived Circulating Tumor Cells. Med chem (Los Angeles) 6: 497-499.
8. Liu H, Li B, Jiang P, Zhong Y, Zhang D, et al. (2016) Anti-diabetes and Anti-inflammatory Activities of Phenolic Glycosides from Liparisodorata. Med chem (Los Angeles) 6: 500-505.
9. Parshad B, Duraisamy AJ, Saini S, Yadav P, Vats P, et al. (2016) Synthesis and SAR Study of Antioxidant Potential of PolyhydroxyCoumarin Derivatives. Med chem (Los Angeles) 6: 506-514.
10. Balaji KS, Shivaprakash P, Preethi SD, Chandrashekara KT, Siddalingaiah L, et al. (2016) Angio Suppressive Effect of Clitoriaternatea Flower Extract is Mediated by HIF-1α and Down Regulation of VEGF in Murine Carcinoma Model. Med chem (Los Angeles) 6: 515-520.