Publications Template

#	Research Title	Field	Abstract	Year of Publication Publishing	Publishing Link "URL"
1	Design ,Synthesis and Preliminary Biological Screening of Some novel substituted alkoxypyridines as Potential Anti-HCV	Synthetic chemistry	The synthesis of some new 3-cyano-4,6-bis(3,4-dimethoxyphenyl)-2-substituted alkoxypyridines supported with various pharmacophores and functionalities at position 2 is described. In-vitro testing of the new compounds on the replication of hepatitis-C virus (HCV) in HepG2 hepatocellular carcinoma cell line infected with the virus using the reverse transcription polymerase chain reaction technique (RT-PCR) generally showed inhibition of the replication of HCV RNA (–) strands at low concentration, while, eight compounds namely; 3a, 6, 7a, 7b, 9a, 9b, 10a and 11b proved to inhibit the replication of both HCV RNA (+) and (–) strands at very low .concentration range 0.08-0.36 µg/mL Collectively, compounds 7b and 11b could be considered the most active anti-HCV	2024	https://drive.google.com/file/d/1Z3WVWsI3jMH9kEqLyfD28D/view?usp=sharing
2	Design, synthesis, antibacterial evaluation and molecular docking studies of some new quinoxaline derivatives	Synthetic chemistry	development of new antimicrobial agents is a good solution to overcome drug-resistance problems. From this perspective, new quinoxaline derivatives bearing various bioactive heterocyclic moieties (thiadiazoles, oxadiazoles, pyrazoles and thiazoles) were designed and synthesized. The newly synthesized compounds were evaluated for their *in vitro* antibacterial activity against nine bacterial human pathogenic strains using the disc	2018	

	targeting dihyropteroate synthase enzyme		diffusion assay. In general, most of the synthesized compounds exhibited good antibacterial activities. The thiazolyl **11c** displayed significant antibacterial activities against *P. aeruginosa* (MIC, 12.5 µg/mL vs levofloxacin 12.5 µg/mL). Molecular docking studies indicated that the synthesized compounds could occupy both *p*-amino benzoic acid (PABA) and pterin binding pockets of the dihydropteroate synthase (DHPS), suggesting that the target compounds could act by the inhibition …		
3	Design and Synthesis of Novel Thioethers Derived from 1, 5-Diphenyl-6-thioxo-6, 7-dihydro-1H-pyrazolo [3, 4-d] pyrimidin-4 (5H)-ones as Antiangiogenic Agents	Synthetic chemistry	In attempts to discover new antiangiogenic entities, a novel series of thioethers derived from 6-thioxo-6,7-dihydro-1H-pyrazolo[3,4-d]pyrimidine-4(5H)ones was considered and designed. Methods Virtual screening was carried out through docking of the compounds into the vascular endothelial growth factor and matrix metalloproteinase-9 binding sites. Molecular docking studies were performed using Lamarckian Genetic Algorithm. Compounds possessing lowest ligandprotein pairwise interaction energies were synthesized and screened for their antiproliferative activities against five cancer cell lines namely MHCC97H (liver), MDA-MB 231 (Breast), Colo205 (Colon), A549 (lung), A498 (kidney) and IC50 values were determined for the most potent compounds. Additionally, they were tested for their antiangiogenic activities by testing their ability to inhibit Human Umbilical Vein Endothelial Cell	2019	
4	Novel pyrazolo[3,4-d]pyrimidines: design, synthesis and biological evaluation as anti-inflammatory and anticancer agents	Synthetic chemistry	In this context, the goal of this study is to design and synthesize a group of compounds that comprise the pyrazolo[3,4-d]pyrimidine scaffold and test their anticancer activity against four cell lines (MDA-MB-231, MCF-7, SF-268, B16F-10). The synthesized compounds are expected to retard the progression of malignancies through not only their cytotoxic activity but also through improved	2023	

			ability to reduce inflammation. The substitution pattern of the synthesized compounds was carefully selected so as to confer different electronic and lipophilic properties to the molecules. In addition, the effect of these compounds on COX-2 protein expression in lipopolysaccharide (LPS)-activated rat monocytes will also be investigated.		