Dr. Muhammad Hasnat

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Contact No. 0092-42-99211449 (Ext. 239)

Education:

2018
PhD (Pharmacology)
China Pharmaceutical University Nanjing, China
Thesis title: Drp1-associated mitochondrial injury is linked with triptolide-induced hepatotoxicity

2014
M.Phil. (Pharmacology)
University of Agriculture Faisalabad, Pakistan
Thesis title: Determination of Doxycycline residues in broiler liver and meat by HPLC-UV

2012
Pharm-D
GC University Faisalabad, Pakistan

2007
F. Sc.
Govt. Science College Faisalabad, Pakistan

Professional and Research Experience:

I am a Pharmacologist with research experience in Toxicology. I have developed skills in drug toxicity, in *vitro* toxicology, *in vivo* toxicology, hepatotoxicity, nephrotoxicity and mitochondrial toxicity. I have acquired good communication, organizational, interpersonal skills and excellence in writing scientific reports and publications, project proposals, presenting posters and seminars.

Research Skills:

1. Cell Culture technique (Hepatic cells L02 and HepG2)
2. Flow Cytometry
3. Confocal microscope
4. PCR
5. Western Blot
6. Immunofluorescence
7. Mitochondrial staining
8. siRNA transfection
9. Lysosomal staining
10. Acute and sub-acute hepatotoxicity in animal models (ICR mice, C57BL/6N mice and Wistar rats)
11. Electeron microscopic evaluation of general cellular toxicity, mitochondrial morphology, abnormalities in mitochondrial morphology, autophagy and mitophagy

Lectures and Seminars:

1. Lecture given by Nobel Laureate; Barry Marshell. Man vs. helicopter-the past 50,000 years and the next 50 at China Pharmaceutical University China (2016).
2. International course on Pharmacy management in Canada by Prof. Kevin Hall (University of Alberta) Graduate School of China Pharmaceutical University, Nanjing, China (2016).
3. Seminar on the role of sphingosine kinases in cell biology organized by the office of international exchange and cooperation, China Pharmaceutical University, China (2017).
4. Seminar on using tissue-resident immune cell against tumor by Dr. Yun Feng Feng from University of Washington St. Louis, organized by new drug screening center, Institute of Pharmaceutical Sciences, China Pharmaceutical University, China (2017).

Employment:

- Assistant professor at IPS, UVAS since 06 may 2019 (HEC approved PhD supervisor)

Publications:

1. Hasnat M, Yuan Z, Naveed M, Khan A, Raza F, Xu D, Ullah A, Sun L, Zhang L and Jiang Z. Drp1-associated mitochondrial dysfunction and mitochondrial autophagy: a novel mechanism in triptolide-induced hepatotoxicity 2019. *Cell biology and toxicology*: 1-14. (6.28)

2. Hasnat M, Yuan Z, Ullah A, Naveed M, Raza F, Baig MMFA, et al. Mitochondria-dependent apoptosis in triptolide-induced hepatotoxicity is associated with the Drp1 activation. Toxicology Mechanisms and Methods. 2020;30(2):124-33. (2.29)

3. Yuan Z, Yuan Z, Hasnat M, Zhang H, Liang P, Sun L, et al. A new perspective of triptolide-associated hepatotoxicity: the relevance of NF-κB and NF-κB-mediated cellular FLICE-inhibitory protein. Acta Pharmaceutica Sinica B. 2020. (7.39)

4. Yuan Z, Zhang H, Hasnat M, Ding J, Chen X, Liang P, et al. A new perspective of triptolide-associated hepatotoxicity: Liver hypersensitivity upon LPS stimulation. Toxicology 2019. (4)
5. Naveed M, Han L, Hasnat M, Baig MMFA, Wang W, Mikrani R, et al. Suppression of TGP on myocardial remodeling by regulating the NF-κB pathway. Biomedicine & Pharmacotherapy 2018;108:1460-8. (4.54)
6. Naveed M, Phil L, Sohail M, Hasnat M, Baig MMFA, Ihsan AU, et al. Chitosan oligosaccharide (COS): An overview. International Journal of Biological Macromolecules 2019. (5.16)
7. Raza F, Zhu Y, Chen L, Khan A, Khan MW, Hasnat M, Zafar H, Han H, Wu J, Ge L. Paclitaxel loaded pH responsive Hydrogel based on self assembly peptides for tumor tageting: Biomaterials Science (RSC) 2019. (6.18)
8. Asifullah K, Zhou Z, He W, Gao K, Khan MW, Faisal R, et al.CXCR4- receptor targeted liposomes for the treatment of peritineal fibrosis. Molecular pharmaceutics. 2019. (4.32)

9. Yuan Z, Hasnat M, Liang P, Yuan Z, Zhang H, Sun L, et al. The role of inflammasome activation in Triptolide-induced acute liver toxicity. International immunopharmacology. 2019;75:105754. (3.94)

10. Shi L, Yuan Z, Liu J, Cai R, Hasnat M, Yu H, et al. Modified Simiaowan prevents articular cartilage injury in experimental gouty arthritis by negative regulation of STAT3 pathway. Journal of ethnopharmacology 2021;270:113825 (IF: 4.6).

11. Pervaiz I, Hasnat M, Ahmad S, Khurshid U, Saleem H, Alshammari F, et al. Phytochemical composition, biological propensities, and in-silico studies of Crateva adansonii DC.: A natural source of bioactive compounds. Food Bioscience 2022;49:101890. (5.3)

12. Wu Q, Li L, Miao C, Hasnat M, Sun L, Jiang Z, et al. Osteopontin promotes hepatocellular carcinoma progression through inducing JAK2/STAT3/NOX1-mediated ROS production. Cell death & disease 2022;13:1-12. (9.7)

13. Hou S, Hasnat M, Chen Z, Liu Y, Baig MMFA, Liu F, et al. Application Perspectives of Nanomedicine in Cancer Treatment. Frontiers in Pharmacology 2022;13. (5.9)

Grants:

SRGP (Completed, 2022) by HEC, Pakistan

References:

References can be provided on demand