AUTHOR'S LIST OF PUBLICATION (ON PHD WORK)

Journal Publications

1. **Kumar G,** Kasiviswanathan U, Mukherjee S, Mahto SK, Sharma N, Patnaik R. Changes in electrolyte concentrations alter the impedance during ischemia-reperfusion injury in rat brain. Physiological measurement. 2019 Sep 25. **(IOP Publishing; SCI)**
2. **Kumar G**, Mukherjee S, Paliwal P, Singh SS, Birla H, Singh SP, Krishnamurthy S, Patnaik R. Neuroprotective effect of chlorogenic acid in global cerebral ischemia-reperfusion rat model. Naunyn-Schmiedeberg's archives of pharmacology. 2019 Jun 12:1-7. **(Springer Nature; SCI)**
3. **Kumar G**, Paliwal P, Mukherjee S, Patnaik N, Krishnamurthy S, Patnaik R. Pharmacokinetics and brain penetration study of chlorogenic acid in rats. Xenobiotica. 2018 Mar 7:1-7. DOI:10.1080/00498254.2018.1445882 **(Taylor & Francis Online; SCI)**
4. **Kumar G**, Paliwal P, Patnaik R. *Withania Somnifera* phytochemicals confer neuroprotection by inhibition of the catalytic domain of human matrix metalloproteinase-9. *Letters in Drug Design & Discovery*. 2017 Jan 1;14(6):718-26. **(Bentham Science; SCI)**
5. **Kumar G**, Paliwal P, Patnaik N, Patnaik R. *Withania Somnifera* phytochemicals confer neuroprotection by selective inhibition of nNos: An in silico study to search potent and selective inhibitors for human nNOS. *Journal of Theoretical and Computational Chemistry*. 2017: doi.org/10.1142/S0219633617500420 **(World Scientific; SCIE)**
6. **Kumar G**, Patnaik R. Inhibition of Gelatinases (MMP-2 and MMP-9) by *Withania Somnifera* Phytochemicals Confers Neuroprotection in Stroke: An *In Silico* Analysis. *Interdisciplinary Sciences: Computational Life Sciences*. 2017 May 9:1-2.doi: 10.1007/s12539-017-0231-x **(Springer Nature; SCI)**
7. **Kumar G**, Patnaik R. Exploring neuroprotective potential of *Withania Somnifera* phytochemicals by inhibition of GluN2B-containing NMDA receptors: An in silico study. *Medical Hypotheses*. 2016 Jul 31; 92:35-43. **(Elsevier; SCI)**
8. Singh SS, Rai SN, Birla H, Zahra W, **Kumar G**, Rao GM, Tiwari N, Patnaik R, Singh RK, Singh SP. Effect of Chlorogenic acid supplementation in MPTP intoxicated mouse. Frontiers in Pharmacology. 2018;9:757.doi: 10.3389/fphar.2018.00757 **(Frontiers; SCI)**
9. Mukherjee S, **Kumar G**, Patnaik R. Identification of potential inhibitors of PARP-1 , a regulator of caspase-independent cell death pathway, from Withania somnifera phytochemicals for combating neurotoxicity: A structure-based in-silico study. Journal of Theoretical and Computational Chemistry. 2017 Sep 11 :1750062. **(World Scientific; SCIE)**
10. Kumar S, Kumar G, Tripathi AK, Seena S, Koh J. Enhanced fluorescence norfloxacin substituted naphthalimide derivatives: Molecular docking and antibacterial activity. Journal of Molecular Structure. 2018 Apr 5;1157:292-9. **(Elsevier; SCI)**
11. **Kumar, G**., Mukherjee, S. and Patnaik, R. Identification of Withanolide-M and Stigmasterol as Potent neuroprotectant and Dual inhibitor of Inducible/Neuronal Nitric Oxide Synthase by Structure-Based Virtual Screening. *Journal of Biological Engineering Research and Review*, 2017, 4(1), pp.09-13. **(UGC Indexed)**

Publications at Conference/Workshop

1. **Kumar G**, Mukherjee S, Patnaik R. Exploring the Neuroprotective Potential of Chlorogenic Acid: An In-vivo and In-silico Approach. At Asia Pacific Stroke Conference 2018, Jakarta Indonesia. In *Cerebrovasc Dis.* 2018;46(1):1-49.7 **(Karger; SCI)**
2. **Gaurav Kumar**, Ranjana Patnaik. Virtual screening of Withania somnifera to search potent neuroprotectant by inhibiting GluN2B-containing NMDA receptors. 1st IBRO-APRC Banasthali School of Neuroscience. In *Int J Nutr Pharmacol Neurol Dis* 2017;7:107-31 **(Wolters Kluwer; SCOPUS)**
3. **Gaurav Kumar**, Ranjana Patnaik. In-silico screening of Withania somnifera phytochemicals for dual inhibition of iNOS and nNOS: A neuroprotective approach. IBRO-APRC Banasthali School of Neuroscience. In *Journal of Biological Engineering Research and Review*, 2017; Vol. 4, Suppl. 1 **(UGC Indexed)**

Book Chapter:

1. **Gaurav Kumar**, Sumedha Mukherjee, Amit kumar Tripathi, Pankaj Paliwal, Sairam Krishnamurthy, Ranajana Patnaik, Stem cell-based therapy for ischemic stroke. Advancement in the Pathophysiology of Cerebral Stroke, 1st ed., Springer Nature Singapore Pte Ltd, 2019, pp. 103-121.
2. Sumedha Mukherjee, Amit kumar Tripathi, **Gaurav Kumar,** Ranjana Patnaik, et al. Neuroprotective Potential of Small Molecule Phytochemicals in Stroke Therapy. Advancement in the Pathophysiology of Cerebral Stroke, 1st ed., Springer Nature Singapore Pte Ltd, 2019, pp. 155-175.
3. Chandra Kant Singh Tekem, Amit kumar Tripathi, **Gaurav Kumar**, Ranjana Patnaik. Emerging Role of Electromagnetic Field Therapy in Stroke. Advancement in the Pathophysiology of Cerebral Stroke, 1st ed., Springer Nature Singapore Pte Ltd, 2019, pp. 93–102.
4. Pankaj Paliwal, Sairam Krishnamurthy, **Gaurav Kumar**, Ranjana Patnaik. "Critical Role of Mitochondrial Authophagy in Cerebral Stroke." Advancement in the Pathophysiology of Cerebral Stroke, 1st ed., Springer Nature Singapore Pte Ltd, 2019, pp. 73–82.