

Fundamental & Collaborative Studies

2015-16

- No. of studies concluded: 12
- No. of studies initiated: 23
- No. of studies ongoing: 10
- No. of articles published: 25

s.no.	Title of research study	Period of study	Brief Outcome	Publication source
Concluded: (1)				
1.	In vitro studies of some Homoeopathic medicines on the proliferation and differentiation of neural stem cell (Avena sativa, Caust., Phos. and Zinc.)	March 2012- May 2015	The study revealed the influence of homoeopathic medicines on the proliferation and differentiation of neural stem cells and will also determine the relative efficacies of potentized homoeopathic medicines regarding their possible actions on neural stem cells in vitro.	Manuscript preparation is under process.
Initiated: (3)				
2.	Effects of Potentized Homoeopathic medicines in Agriculture (Agro-Homoeopathy): An eco-friendly alternative solution for synthetic fertilizers and pesticides.	May 2015	Study aims at extensive scientific study of effects of abiotic stress on growth and development of seedlings, field application of these potentised homeopathy remedies in agriculture and effect on yield & use of potentised homeopathic nosodes and autonosodes in controlling diseases of wheat and pea by use of same disease of plant.	---
3.	To study the effect of homeopathic drugs on ultra-structure of mid-gut cells derived from Aedes albopictus.	Jan 2015	To study the effect of homeopathic medicines on the ultrastructure of mid gut cells derived from Aedes albopictus & to study the apoptotic and necrotic changes in mid gut cells	---
4.	Prophylactic	Decembe	The proposed study aims to	---

	effect of Homeopathic anti-malaria drugs on malaria - A prevention effectiveness study in Odisha, Odisha	r 2016	measure and document the efficacy of select homeopathic medicines in the prevention of malaria in a community setting through an experimental study design. If found positive, such homoeopathic medicines can be used as preventive against malaria.	
Ongoing: (7)				
5.	Effect of homoeopathic medicines on dengue virus infection on mosquito cell line and in suckling mice.	Jan 2015	The study will help us to understand the mechanism of action of homoeopathic drugs on dengue virus infection in mice and mosquito cell line model. This will help us to understand application of same in human beings in further studies.	---
6.	Estimation of viral load and immune response in JE virus infected adult and suckling mice treated with Belladonna.	Jan 2015	The study will help us to understand the mechanism of action of homoeopathic drugs on JE virus infection in mice and mosquito cell line model. This will help us to understand application of same in human beings in further studies.	---
7.	Elucidation of molecular mechanism of action of Belladonna - Calcarea Carbonica - Tuberculinum Bovinum (BCT) during Japanese Encephalitis Infection.	March 2015	Main focus in this project proposal is to understand how Belladonna-200 cross talk with the host receptors and innate immune response during JEV infection and to understand the mechanism behind its protection.	---
8.	Understanding the Mechanism of action of homoeopathic medicine at molecular level in nano domains in-	March 2015	The main objective is to establish homeopathy as nano medicine and in vitro study of effect of homeopathic medicines at different potencies on membrane physical properties, in vivo study of effect of homeopathic	---

	vivo and in-vitro systems.		medicines at different potencies & characterization of homeopathic medicines.	
9.	Evaluation of anti-fungal activity of certain Homoeopathic medicines on growth of human pathogenic fungi " <i>Candida albicans</i> " using in-vitro assays.	December 2013	Experiments were conducted and further experiments were planned for validation.	---
10.	Evaluation of anti-fungal activity of certain Homoeopathic medicines on growth of human pathogenic fungi " <i>Aspergillusniger</i> " using in-vitro assays.	December 2013	Experiments were conducted and further experiments were planned for validation.	---
11.	Evaluation of anti-fungal activity of certain Homoeopathic medicines on growth of human pathogenic fungi " <i>Microsporumcanis</i> " using in-vitro assays.	December 2013	Experiments were conducted and further experiments were planned for validation.	---

Publications:

1. Saha S, Bhattacharjee P, Guha D, Kajal K, Khan P, Chakraborty S, Mukherjee S, Paul S, Manchanda R, Khurana A, Nayak D, Chakrabarty R, Sa G, Das T. Sulphur alters NF κ B-p300 cross-talk in favour of p53-p300 to induce apoptosis in non-small cell lung carcinoma. *International Journal of Oncology* 2015 June 22.
2. Anil Kumar Nain, Preeti Droliya, Raj Kumar Manchanda, Anil Khurana, Debadatta Nayak. Physicochemical studies of extremely diluted solutions (homoeopathic formulations) of sulphur in ethanol by using volumetric, acoustic, viscometric and refractive index measurements at different temperatures. *Journal of Molecular Liquids* 211 (2015) 1082–1094
3. Thellamudhu Ganesan, Divya Bhavani Ravi, Jyothilakshmi Vasavan, Anil Khurana¹, Debadatta Nayak¹, Kalaiselvi Periandavan Homoeopathic preparation of *Berberis vulgaris* as an inhibitor of Calcium oxalate crystallization: An in vitro evidence. *Indian Journal of Research in Homoeopathy / Vol. 9 / Issue 3 / Jul-Sep 2015*.
4. Subrata Kar, Poonam Bandyopadhyay, Sweta Chakraborty, Monalisa Chakrabarty, Biplab kumar Paul, Sarbari Ghosh, Ruma Basu, Sukhen Das, Durga Sankar Bhar, Rajkumar Manchanda, Anil Khurana, Debadatta Nayak, Papiya Nandy. Derivation of an empirical relation between the size of the nanoparticle and the potency of homeopathic medicines. *International Journal of High Dilution Research* 2015; 14(4):2-7.
5. Paul B K, Kar S, Bandyopadhyay P, Basu R, Das S, Bhar D S, Manchanda RK, Khurana A, Nayak D, Nandy P. Significant enhancement of dielectric and conducting properties of electroactive polymer polyvinylidene fluoride films: An innovative use of Ferrum metallicum at different concentrations. *Indian J Res Homoeopathy* 2016;10:52-8.
6. Anil Kumar Nain, Preeti Droliya, Raj Kumar Manchanda, Anil Khurana, Debadatta Nayak. Physicochemical studies of homoeopathic formulations (extremely diluted solutions) of acidum salicylicum in ethanol by using volumetric, acoustic, viscometric and refractive index measurements at 298.15, 308.15 and 318.15 K. *Journal of Molecular Liquids* 215 (2016) 680–690.