CURRICULUM VITAE

Dr. Kasturi Sarkar

Contact Information

e-mail : sarkar.kasturi@sxccal.edu, sarkar.kasturi@gmail.com

Permanent residential address: 1/AF Bidhannagar, Saha Abasan
Kolkata-700064, India
Ph: 03322551276

Personal Information

Date and place of birth : 18.08.1975, Kolkata, India.
Nationality : Indian

Research Interest

To study the basic mechanisms of different pathophysiological states related to human beings. Molecular mechanisms involved in different diseases and the structure-function relationship of different bioactive molecules present in there.

Projects executed:

2011-2014: Department of Science and Technology (India) funded project "Synbiotic effect of prebiotic molecules and probiotic yeast *Saccharomyces boulardii* on human health". The aim of the project was to monitor the effect of different prebiotic molecules on the growth of the probiotic yeast *Saccharomyces boulardii.* This project screened a number of prebiotic molecules to determine their efficacy on *S. boulardii* growth.

2015- 2017: University Grants Commission (India) funded Minor project 'Effect of prebiotics on the antibiotic sensitivity pattern of various lactobacilli'.

Research Experience

Purification of unknown protein and Enzymology

in vitro studies like Primary cell culture- Isolation of hepatocytes from rat/mouse liver by collagen perfusion method and maintenance in culture medium. Studies of cell

survivability, membrane leakage, apoptosis, necrosis in isolated and cultured hepatocytes, experience of cardiomyocyte stem cell culture.
Study of Microorganisms, sp on probiotics-different lactobacilli and *S.boulardii*.
Studied Drosophila embryogenesis (expression of stardust protein) in Max Plank Institute for Cellular biology and genetics.

in vivo studies : Measurement of different marker enzymes related to physiological and pathological states of liver and other organs in mice. Measurement of several oxidative stress markers from organs of experimental animals. Histopathological studies and microscopical analysis of different organs, Raising of polyclonal antibody against a pure protein in rabbits.

Signal transduction studies like assay of different kinases, various transcription factors etc.

List of Publications

1. **Sarkar K,** Ghosh A and Sil PC. Preventive and curative role of a 43 kD protein from the leaves of the herb *Cajanus indicus* L on thioacetamide induced toxicity. Hepatology Research 2005; 33: 39-49.

2. **Sarkar K**, Sarkar MK, Bhattacharjee R, Chatterjee M and Sil PC. Curative role of the aqueous extract of the herb, *phyllanthus niruri,* on nimesulide induced oxidative stress in murine liver. Biomedical Reasearch 2005; 16(3): 171-176.

3. **Sarkar K** and Sil PC. A 43 kD protein from the herb *Cajanus indicus* L. protects thioacetamide-induced cytotoxicity in hepatocytes. Toxicology in Vitro 2006; 20(5): 634-640.

4. **Sarkar K,** Ghosh A, Kinter M, Mazumder B and Sil PC. Purification and characterization of a 43 kD hepatoprotective protein from the herb *Cajanus indicus* L. Protein Journal 2006; 25(6): 411-421.

5. Ghosh A, **Sarkar K** and Sil PC. Effect of a 43 kD protein from the leaves of the herb, *Cajanus indicus* L on chloroform induced hepatic-disorder. Journal of Biochemistry and Molecular Biology 2006; 39(2): 197-207.

6. Chatterjee M, **Sarkar K** and Sil PC. The protein isolate of the herb, *Phyllanthus niruri,* protects liver from nimesulide induced oxidative stress. Pathophysiology 2006; 13(2): 95-102.

7. **Sarkar K** and Sil PC. Attenuation of acetaminophen-induced hepatotoxicity *in vivo* and *in vitro* by a 43 kD protein isolated from the herb, *Cajanus indicus* L. Toxicology Mechanisms and Methods. 2007; 17(6): 305-15.

8. **Sarkar K**, Sil PC. *Cajanus indicus* leaf protein: Beneficial role in experimental organ pathophysiology. A review. Pathophysiology. 2011; 18(4): 295-303.

9. Sarkar D, Mal P, Sinha S, Chakraborty R and **Sarkar K**. Prevention of carbon tetrachloride induced hepatic damage in mice by the probiotic yeast *Saccharomyces boulardii.* IJBPAS. 2013; 2(4): 879-893.

10. Mitra A K & **Sarkar K.** Book: Practical manual of Modern Microbiology; Himalaya Publishing house Pvt. Ltd. Kolkata, 2016.

11. Chakraborty R, Ganguly R, Hore P, Nath S and **Sarkar K**. Maltodextrin: a prebiotic of choice for *Lactobacillus plantarum*, but not for *Lactobacillus casei* in combination with antibiotics. International Journal of Probiotics and Prebiotics; 2018; 13(1): 19-24.

12. Ganguly R, Chakraborty R, **Sarkar, K**. Inulin induced co-aggregation of *Sacharomyces boulardii* with potential pathogenic bacteria. International Journal of Probiotics and Prebiotics; 2019; 14: 18–23.

13. **Sarkar** K and Sil P C. Infectious lung diseases and Endogenous oxidative stress in the book ,Oxidative Stress in Lung Diseases-Vol 2. Springer Nature, September 2019. DOI: 10.1007/978-981-13-8413-4_7.

14. **Sarkar K**, Sil P, Nabavi SF, Berindan - Neagoe I, Cismaru A, Nabavi SM, Habtemariam S. Possible Targets and Therapies of SARS-CoV-2 Infection. Mini Reviews in Medicinal Chemistry 20(18), August 2020.

15. Habtemariam S, Nabavi SF, Banach M, Berindan - Neagoe I, **Sarkar K**, Sil P, Nabavi SM. Should we try SARS-CoV-2 Helicase Inhibitors for COVID-19 Therapy? Archives of Medical Research 51(7), May 2020.

16. Shahmohamadnejad S, Nabavi SF, Habtemariam S, **Sarkar K**, Sil P, Dowran R, Nabavi SM. May we target double membrane vesicles and oxysterol-binding protein to combat SARS-CoV-2 infection? Cell Biology International 44(9). May 2020, 10.1002/cbin.11400.

17. **Sarkar K** and Sil P. Toxicant induced gut dysbiosis and increased intestinal permeability. Multi-System Health Impacts from Exposure, 1st Edition,

Editor: Aristidis Tsatsakis, Paperback ISBN: 9780323852159, Academic Press, Published Date: 1st August 2021.

18. **Sarkar K** and Sil P C. 'Antioxidants and Immune system' in the Book 'Antioxidants Effects in Health'. 1st Edition, The Bright and the Dark Side, ISBN: 9780128190968, Elsevier, Published date: 1st November 2021.