

## *Curriculum vitae*

***Dr. SOMA HALDER***

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### **ACADEMIC QUALIFICATIONS**

<b>UNIVERSITY</b>	<b>QUALIFICATIONS</b>	<b>YEAR</b>
<i>West Bengal State University</i>	<i>Ph.D. in Science</i>	<i>2019</i>
<i>West Bengal State University Kolkata -700126</i>	<i>M.Sc in Physiology</i>	<i>2011</i>
<i>University of Kalyani, Kalyani</i>	<i>B.Sc (Hons) in Physiology</i>	<i>2009</i>

### **RESEARCH EXPERIENCE**

- ❖ On-going research work-“Exploring the effect of a longitudinal yogic intervention on endocrine functions, emotional regulation, neurocognitive parameters and health related fitness among growing children” with a collaboration of Dr. Tarak Nath Pramanik (Associate Professor, IGIPSS, Delhi University).
- ❖ 2019, drafted a book titled: ***Yoga and Stress Management (Generic elective Paper of Physical Education in University of Delhi)*** published by the sports publishers, publishing company (I.S.B.N: 978-81-944358-1-5).

- ❖ July 2013-2018 in a project entitled “**Molecular response and role of heat shock protein during heat stress-induced dysregulation of testicular function and its management by natural products**” sponsored by UGC-RGNF scheme for Ph.D. at West Bengal State University.
- ❖ September 2011-2012 in a project titled “**Experimental studies on interaction of carbamates, stress and organophosphates**” sponsored by Defence Research Development Establishment (DRDE), Gwalior, Ministry of Defense. Govt of India at West Bengal State University.

## THEME OF RESEARCH WORKS DONE

**Post Doctoral research work:** “Exploring the effect of a longitudinal yogic intervention on endocrine functions, emotional regulation, neurocognitive parameters and health related fitness among growing children” with a collaboration of Dr. Tarak Nath Pramanik (Associate Professor, IGIPSS, Delhi University)

Drafted & edited a book titled: **Yoga and Stress Management** (Generic elective Paper of Physical Education in University of Delhi) published by the sports publishers, publishing company (I.S.B.N: 978-81- 944358-1-5).

**Doctoral research work:** Molecular response and role of heat shock protein during heat stress-induced dysregulation of testicular function and its management by natural products

**Post Master degree Research work:** Experimental studies on interaction of carbamates, stress and organophosphates

**Post Graduation dissertation:** Effect of CARDAMOM (*Elettaria Cardamomum*), CINNAMON (*Cinnamomum verum*) & CLOVE (*Syzygium aromaticum*) On Streptozotocin induced Experimental Diabetic Rats.

## PUBLICATIONS

### Research Articles:

- ❖ **Soma Halder** , Mrinmoy Sarkar , Sananda Dey, Prasanta Ghosh , Sujay K. Bhunia , Debasish Bandyopadhyay , Biplab Giri, “Melatonin Ameliorates Heat Stress Induced Dysregulation of Testicular Function In Wistar Rat By Restoring Tissue Health, Hormone And Antioxidant Status And Modulating Heat Shock Protein Expression”. *International Journal of Life science and Pharma Research* 2020; doi 10.22376/ijpbs/lpr.2020.10.5.L31-43
  
- ❖ **Soma Halder**, Mrinmoy Sarkar, Sananda Dey, Sujay K Bhunia, Alok R Koley, Biplab Giri. “Protective effects of Red grape (*Vitis vinifera*) juice through restoration of antioxidant defense, endocrine swing and Hsf1 and Hsp72 levels in heat stress induced testicular dysregulation of Wister rat”. *Journal of Thermal Biology* 2018; 71:32-40. doi: 10.1016/j.jtherbio.2017.10.011.
  
- ❖ Pathikrit Bandopadhyay, **Soma Halder**, Mrinmoy Sarkar, Sujay Kumar Bhunia, Sananda Dey, Antony Gomes, Biplab Giri. Molecular modeling of NK-CT1, from Indian monoacetate cobra (*Naja kaouthia*) and its docking interaction with human DNA topoisomerase II alpha. *Bio information*. 2016; 12(3): 105–111.
  
- ❖ **Soma Haldar**, Sudeshna Bhattacharya, Biplab Giri, Shyamal Das Gupta, Niladri Shekhar Bhunia Anindya Sundar Bhunia, Sajal Ray, Mitali Ray, Rahul Bhattacharya, Pratiti Ghosh. Effect of Cold Stress on Pyridostigmine Pretreated Rats Exposed to an Organophosphorous Compound. *Journal of Life Sciences Research* 2014; 1(1):10-15. (ISSN: 2408-9184).
  
- ❖ Sudeshna Bhattacharya **Soma Haldar**, Biplab Giri, Shyamal Das Gupta, Sajal Ray, Rahul Bhattacharya, Pratiti Ghosh. Pretreatment of Pyridostigmine Bromide Does not Induce Cellular Toxicity. *Advances in Life Sciences* 2014; 4(5):220-226.

**Book:**

**“Yoga and Stress Management”** (Generic elective Paper of Physical Education in University of Delhi) published by the sports publishers, publishing company (I.S.B.N: 978-81- 944358-1-5).

**CONTRIBUTION TO SCHOLARLY SEMINARS & CONFERENCES**

- ❖ Purple grape (*Vitis Vinifera*) juice protects against sub-chronic exposure of heat stress on rats without affecting thyroid functional alteration on. International Seminar & national conference on Molecular Physiological and Nutritional responses during pathophysiological alteration of cell function. March 16, 2016, Department of Physiology, West Bengal State University, Kolkata-700126.
- ❖ *Cytoprotective effect of Red-Grape extract against acute heat stress-induced testicular cytotoxicity*, presented in poster session in the 4<sup>th</sup> Annual Conference of the Toxicological Society of India and International Colloquium on “Venom, Toxins, and Human Health- Revisiting the Translational Approach” held in *Calcutta School of Tropical Medicine*, Kolkata, India on and from 20-22 November 2014.
- ❖ *A comparative analysis of anti-cancer effects of pioglitazone and metformin in MCF7, K562, and HepG2 cells*, presented in poster session in the 4<sup>th</sup> Annual Conference of the Toxicological Society of India and International Colloquium on “Venom, Toxins and Human Health- Revisiting the Translational Approach” held in *Calcutta School of Tropical Medicine*, Kolkata, India on and from 20-22 November, 2014.
- ❖ Protective Effects of Red Grape Juice on Exogenously induced Heat stress Model of Male *Wistar* Rats. UGC Sponsored National Seminar on Microbes To higher plants for Human Health and Society in the Post-Genome Era 2013. ISBN-13:978-81-928627-1-2 (**first prize-winning poster**).
- ❖ An “Effect of CARDAMOM (*Elettaria Cardamomum*), CINNAMON (*Cinnamomum verum*) & CLOVE (*Syzygium aromaticum*) On Streptozotocin induced Experimental Diabetic Rats”. In the “International Conference on Molecules to Systems Physiology: 100 Years Journey” ICMSP 100, September 21-23, 2011, Department of Physiology, University of Calcutta, University College of Science and Technology, 92 APC Road, Calcutta 700 009, India.
- ❖ Stress Factors Influencing Pharmacodynamics of Pyridostigmine Pretreated In Rats. In the 4<sup>th</sup> International Conference on Chronic Hypoxia. Organized by Defence Institute of Physiology & Allied Sciences (DIPAS) , 2012.
- ❖ Influence of Hypothermic Stress in Rats *Visa Vis* Pyridostigmine Bromide Pretreatment in Di-isopropyl Fluorophosphate (DFP). Organized by Indian Academy of Neurosciences (IAN) Kolkata Chapter (2012).

- ❖ Effect of Pyridostigmine Bromide in Rats on some specific Biochemical Parameters. Organized by Indian Academy of Neurosciences (IAN) Kolkata Chapter (2012) (**2<sup>nd</sup> prize winner**).
- ❖ Physical Activity Induced Biochemical and Physiological Changes in Rat Model, IJPPAZ: 2011; 55 (5):125-126 (ISSN: 00195499).

### **WORKSHOP**

Workshop on Ergonomics and occupational Health held at Nation institute of occupational Health (NIOH), Ahmedabad from April 5-7, 2011.

### **SPECIAL TRAINING**

Certificate Course in Yoga Education (session 2019-2020) from Indira Gandhi Institute of Physical Education and sports sciences, University of Delhi.

### **AWARD RECEIVED**

- ❖ Senior Research Fellowship from the UGC RGNF scheme in 2017.
- ❖ Junior Research Fellowship from UGC RGNF scheme in the year 2012-2013.
- ❖ Received first prize in poster presentation in 2013

### **TECHNICAL SKILLS & KNOWLEDGE**

- ❖ Rodent handling and dosing, weight measurement.
- ❖ Tissue fixation and preservation.
- ❖ Morphological study of tissue
- ❖ Immunohistochemical study of tissue
- ❖ Ex vivo bioluminescent imaging
- ❖ Spectrophotometric study of biomolecules
- ❖ Polymerase chain reaction
- ❖ Gel electrophoresis
- ❖ ELISA

- ❖ Western blotting
- ❖ Bioinformatics: Proteomics native

### **ADDITIONAL SKILLS**

- ❖ Research project management including database and administration.
- ❖ Capable of analysing large amounts of statistical and biological data.
- ❖ Comfortable interacting with computers, databases, software systems, and other common technological devices in a laboratory setting.

### **CAREER OBJECTIVE**

Achieve an inspiring position in the field of research where I could utilize my knowledge, skills, and experience to help the society.

### **AREAS OF INTEREST**

- ❖ Yoga And stress management.
- ❖ Efficacy of melatonin in mental stress management.
- ❖ Study of melatonin receptors in organ specific manner in normal and Stressed condition.

*Current area of research:* “Exploring the effect of a longitudinal yogic intervention on endocrine functions, emotional regulation, neurocognitive parameters and health related fitness among growing children” with a collaboration of Dr. Tarak Nath Pramanik (Associate Professor, IGIPSS, Delhi University)

### **DECLARATION**

I hereby declare that the information furnished above is true to the best of my knowledge.

*Soma Halder*

Signature

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