

FACULTY MEMBERS' ACADEMIC PROFILE

1. **Name of the Faculty member:** Dr.(Mrs) Maitrayee Banerjee Mukherjee

2. **Designation :** Assistant Professor in Physiology

3. **Qualification:** M.Sc, Ph.D

4. **Specialization:** Endocrinology and Reproductive Physiology

5. **E-mail address:** maitrayee\_77@yahoo.co.in

6. **Date of Joining in W.B.E.S.:** 12.09.2009

7. **Date of Joining in this College:** 18.02.2019

8. **Total Teaching experience in College level:** 13 years

9. **Research interests:** Endocrinological diseases and Toxicology

10. **Title of thesis (Ph.D.) with year:** An evaluation of oil extract of garlic cloves (*Allium sativum* Linn.) as an antiosteoporotic agent in an ovariectomized rat model (2007 )

11. **Research guidance:** Nil

12. **Research Projects (Completed and ongoing):** Nil

13. **List of publications:**



**Published papers in Journals:**

- **Banerjee M**, Mondal Sk IB, Pandit A, Adhikari D and Pradhan N. A study on serobio chemical profile in Orange G induced male rats. 2023. **European Journal of Biomedical and Pharmaceutical Sciences** (2023) 10(2) : 233-238. [https://www.ejbps.com/ejbps/abstract\\_id/9458](https://www.ejbps.com/ejbps/abstract_id/9458)
- Banerjee O, Sinhg S, Prasad SK, Ray D, **Banerjee Maitrayee**, Pal S, Kundu S, Maji BK and S Mukherjee. 2021. Dichlorophene activates aryl hydrocarbon receptor (AhR) and indoleamine 2,3 dioxygenase 1 (IDO1) to mediate splenotoxicity in rat. **Drug Chemical Toxicology** (2022) Sep;45(5):2311-2318. doi: 10.1080/01480545.2021.1935435. Epub 2021 Jun 9. <https://doi.org/10.1080/01480545.2021.1935435> (IF : 2.32).
- Banerjee O, Singh S, Bose A, Kundu S, **Banerjee Maitrayee**, Ray D, Maji BK, Mukherjee S. 2021. Therapeutic potential of L arginine in a rat model of ovarian ischemia-reperfusion injury. **Environmental and Experimental Biology** (2021) 19: 81-88. ISSN 2255-9582. <http://doi.org/10.22364/ceb.19.08>
- Banerjee O, Singh S, Saha I, Pal S, **Banerjee M**, Kundu S, Syamal AK, Maji BK, Mukherjee S. Molecular dissection of cellular response of pancreatic islet cells to Bisphenol-A (BPA): A comprehensive review. **Biochem Pharmacol.** Epub (2022) Apr 30. PMID: 35504317. (Elsevier) (IF : 5.858) <https://doi.org/10.1016/j.bcp.2022.115068>

- **Banerjee Maitrayee**, Banerjee O, Singh S, Mukherjee S. Protective Effects of Black Tea (*Camellia sinensis*) Extract on Endosulfan Induced Oxidative Stress, Inflammation and Hepatic Damage in Rats. (2022) **Toxicology International** **29(3): 353-361.(IF:1.205)**  
<https://www.informaticsjournals.com/index.php/toxi/article/view/29822>.
- **Banerjee Maitrayee**. Remodelling of Mother's Microbiome in Pregnancy: A Review .**International Journal of Pharmacy and Biological Sciences-IJPBS** (2021) 11 (4): 06-12 Online ISSN: 2230-7605, Print ISSN: 2321-3272.  
[https://www.ijpbs.com/ijpbsadmin/upload/ijpbs\\_61a1112b78c71.pdf](https://www.ijpbs.com/ijpbsadmin/upload/ijpbs_61a1112b78c71.pdf)
- **Maitrayee Banerjee** and Dolan Das. Mucormycosis-The New Threat in Post-COVID 19 Infection. **International Journal of Pharmacy and Biological Sciences-IJPBS** (2021) 11 (3): 64-70 Online ISSN: 2230-7605, Print ISSN: 2321-3272.  
[https://www.ijpbs.com/ijpbsadmin/upload/ijpbs\\_612de35835856.pdf](https://www.ijpbs.com/ijpbsadmin/upload/ijpbs_612de35835856.pdf)
- Krishnendu Sarkar and **Maitrayee Banerjee Mukherjee**. Human Milk Oligosaccharides : The secret weapon for neonates and infants..**European Journal of Pharmaceutical and Medical Research** (2022) 9(9) :117-123.Print ISSN :2394-3211.  
[https://www.ejpmr.com/home/abstract\\_id/9996](https://www.ejpmr.com/home/abstract_id/9996)
- **Maitrayee Banerjee Mukherjee**. Mitochondrial dysfunction in the pathogenesis of Alzheimer's Disease : A review. **European Journal of Pharmaceutical and Medical Research** (2022) 9(9),124-129.Print ISSN :2394-3211.  
[https://www.ejpmr.com/home/abstract\\_id/9997](https://www.ejpmr.com/home/abstract_id/9997)
- **Maitrayee Banerjee Mukherjee and Dolan Das**. Garlic (*Allium sativum* Linn) as a nutraceutical : *revisiting* the potential therapeutic effects in health and diseases.(2021). **World Journal of Pharmacy and Pharmaceutical Sciences**10 (11) : 145-160. ISSN 2278 – 4357 .[https://www.wjpps.com/Wjpps\\_controller/abstract\\_id/15383](https://www.wjpps.com/Wjpps_controller/abstract_id/15383).
- **Maitrayee Banerjee** and Dolan Das. Covid 19 : A risk for diabetes induced male subfertility. **International Journal of Life Sciences**. (2021 )Special issue on Covid 19, Page 17-22. ISSN:2320-7817(print) 2320-964X(Online).  
<https://ijlsci.in/ls/index.php/home/article/view/487>
- **Maitrayee Banerjee** and Dolan Das .Influence of natural-disaster related stress on maternal and child health . **International Journal of Life Sciences**( 2021); 9 (1):35-40. ISSN:2320-7817(print) 2320-964X(Online).  
<https://ijlsci.in/ls/index.php/home/article/view/354>
- **Maitrayee Banerjee Mukherjee**, Kuntal Gupta, Sanjay Kr Bhattacharya, Biswas P.2021.A study to investigate the association between maternal anaemia and gestational diabetes with postpartum depression in urban mothers. **European Journal**

of **Pharmaceutical and Medical Research** 2021 8(6),124-129.Print ISSN :2394-3211.  
[https://www.ejpmr.com/home/abstract\\_id/8370](https://www.ejpmr.com/home/abstract_id/8370).

- Kuntal Gupta, **Maitrayee Banerjee Mukherjee**, Sanjoy Kr Bhattacharya, Anindita De. Maternal factors associated with Low Birth Weight babies (LBW) in a Govt Medical College, Kolkata. **World Journal of Pharmaceutical and Medical Research** 2021 7(6): 350-354. [https://www.wjpmr.com/home/article\\_abstract/3583](https://www.wjpmr.com/home/article_abstract/3583)
- **Maitrayee Banerjee Mukherjee** and Kuntal Gupta. Review on prevalence of low birth weight in India: Consequences and Eradication Programmes. **World Journal of Pharmaceutical and Medical Research** 2021 7(8): 144-148. [https://www.wjpmr.com/home/article\\_abstract/3665](https://www.wjpmr.com/home/article_abstract/3665)
- **Maitrayee Banerjee**, Ayon Roy, Prianka Polley, Nirmal K Pradan. A study to evaluate hepato and utero protective role of Vitamin E in ethanol fed ovariectomized rats. **European Journal of Biomedical and Pharmaceutical Sciences** 2020 7(6) 375-380. [https://www.ejbps.com/ejbps/abstract\\_id/6914](https://www.ejbps.com/ejbps/abstract_id/6914)
- **Maitrayee Banerjee**, RA Reja, Purba Ganguly and Nirmal Pradhan. A comparative study to evaluate hepato and uteroprotective role of Aloe vera and Vitamin E in ethanol fed ovariectomized rats. **World Journal of Pharmaceutical and Life sciences**. 2020 6(9): 277-285. [https://www.wjpls.org/home/article\\_abstract/1972](https://www.wjpls.org/home/article_abstract/1972).
- Purushottam Pramanik, **Maitrayee Banerjee**, Abhijit Mandal. Prevalence of hypertension and associated factors among college students in West Bengal, India : A cross sectional Study. **International Journal of Medical and Health Sciences** 2015.4 (3) 377-381,
- Asankur Sekhar Das, **Maitrayee Banerjee**, Dolan Das, Sandip Mukherjee and Chandan Mitra Black tea may be a prospective adjunct for calcium supplementation to prevent early menopausal bone loss in a rat model of osteoporosis . **Journal of Osteoporosis** 2013. Article ID 760586 PMID: 23984184; PMCID: PMC3741960.
- Sangita Majumdar, Sandip Mukherjee, Anasuya Maiti, Subhra Karmakar, Asankur Sekhar Das, **Maitrayee Mukherjee**, Arunabha Nanda, Chandan Mitra. Folic acid or combination of folic acid and vitamin B<sub>12</sub> prevents short-term arsenic trioxide induced systemic and mitochondrial dysfunction and DNA damage. **Environmental Toxicology** 2009.24 (4), 377–387,
- Asankur Sekhar Das, **Maitrayee Mukherjee**, Dolan Das, Chandan Mitra .Protective action of aqueous black tea (*Camellia sinensis*) extract (BTE) against ovariectomy- induced oxidative

stress of mononuclear cells and its associated progression of bone loss **Phytotherapy Research** (UK) 2009.,23(9): 1287-1294.

- **Maitrayee Mukherjee**, Asankur Sekhar Das, Dolan. Das, Sandip Mukherjee, Smita Mitra and Chandan Mitra. Role of peritoneal macrophages and lymphocytes in the development of hypogonadal osteoporosis in an ovariectomized rat model : possible phytoestrogenic efficacy of oil extract of garlic to preserve bone health. **Phytotherapy Research** 2007.21,1045-1054.
- Sandip Mukherjee, Dolan Das, **Maitrayee Mukherjee**, Asankur Sekhar Das and Chandan Mitra .Synergistic effect of folic acid and vitamin B<sub>12</sub> in ameliorating arsenic induced oxidative damage in pancreatic tissue of rat. **Journal of Nutritional Biochemistry** 2006. 17(5): 319 – 327.
- **Maitrayee Mukherjee**, Asankur.Sekhar. Das, Dolan. Das, Sandip Mukherjee, Smita Mitra, and Chandan. Mitra. Effects of garlic oil on postmenopausal osteoporosis using ovariectomized rats : comparison to the effects of lovastatin and 17 $\beta$  estradiol. **Phytotherapy Research** 2006. 20(1):21-27.
- **Maitrayee Mukherjee**, Asankur.Sekhar. Das, Dolan. Das, Sandip Mukherjee, Smita Mitra, and Chandan. Mitra Role of oil extract of garlic (*Allium sativum* Linn.) on intestinal transference of calcium and its possible correlation with preservation of skeletal health in an ovariectomized rat model of osteoporosis. **Phytotherapy Research** 2006. 20(5) : 408-415.
- Dolan Das, Sandip Mukherjee, Asankur Sekhar Das, **Maitrayee Mukherjee** and Chandan Mitra . Aqueous extract of black tea (*Camellia sinensis*) prevents ethanol + cholecystokinin – induced pancreatitis in a rat model. **Life Sciences** 2006. 78 (19): 2194 – 2203.
- Dolan Das, Sandip Mukherjee, **Maitrayee Mukherjee**, Asankur.Sekhar Das and Chandan Mitra. Aqueous extract of black tea (*Camellia sinensis*) prevents chronic ethanol toxicity. **Current Science** 2005.88(6): 952-9 61,
- **Maitrayee Mukherjee**, Asankur Sekhar. Das, Smita. Mitra and Chandan. Mitra. Prevention of bone loss by oil extract of garlic (*Allium sativum* Linn.) in an ovariectomized rat model of osteoporosis. **Phytotherapy Research**. 2004. 18: 389-394.
- Asankur Sekhar Das, **Maitrayee. Mukherjee** and Chandan. Mitra.Evidence for a prospective anti-osteoporosis effect of black tea (*Camellia sinensis*)extract (BTE) in a bilaterally ovariectomized rat model . **Asia Pacific Journal of Clinical Nutrition** 2004.13(2): 210 – 216.

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- Asankur Sekhar Das, Dolan. Das, **Maitrayee. Mukherjee**, Sandip Mukherjee and Chandan . Mitra Phytoestrogenic effects of black tea extract (*Camellia sinensis*) in an oophorectomized rat (*Rattus norvegicus*) model of osteoporosis. **Life Sciences**, 2005.77(24): 3049-3057.
- Sandip Mukherjee, Dolan Das, Soumendra Darbar, **Maitrayee Mukherjee**, Asankur Sekhar Das and Chandan Mitra Arsenic trioxide generates oxidative stress and islet cell toxicity in rabbit.. **Current Science** 2004. 86(6):854-857.

### Book Chapters Published

- **Maitrayee Banerjee** and S Tripathi. Pathophysiology of Migraine : Role of Estrogen in **Science Review** Volume 2 -2017. ISBN -978-81-917259-4-9(Publisher-Publication cell Berhampore Girl's College ,PO Berhampore Dis Murshidabad,, March 2017).
- **Maitrayee Banerjee**.Effect of SARS Cov2 infection on male gonadal function in **The Science of Covid 19 People and Society** 1<sup>st</sup> Edition ISBN - 978-81-949068-0-3(Publisher Avenel Press,Kolkata-73)

### A) Conference Proceedings:

- **Assessment of RANK L activation and calcium metabolism by Black Tea Extract (BTE) in endosulfan treated female hypogonadal rats.**in Book of Abstracts in fifth Regional Science and Technology Congress,Region 3 in West Bengal State University Jan -19-20,2023.
- **Regulation of duodenal cell calcium absorption and uterine enzymatic activities by lovastatin in female hypogonadal rat model under cold stress : Comparison to the effects of 17 beta estradiol.** Proceedings of National conference on Sustainable Health Science for Future Generations organized by Department of Physiology,Kalyani University and the Indian Science Congress Association,Kolkata on 28<sup>th</sup>-29<sup>th</sup> april,2022.
- **The psychosocial and physiological risk factors of Postpartum Depression (PPD).**Physicon 2021.National Conference on Women's health in India : Issues and Concerns and XXXII nd Annual Conference of The Physiological Society of India 14<sup>th</sup>-16<sup>th</sup> March,2022.
- **Regulation of osteoclastic differentiation and duodenal cell function by garlic oil in hypogonadal rat model of osteoporosis : comparison to 17 beta estradiol .** International conference on contemporary innovative issues and future challenges in Physiology and Allied Sciences (ICCIIFCPAS-2020) on 21<sup>st</sup> and 22 nd January, **2020**.
- **Amelioration of hyperglycemia by supplementation with ethanolic extract of *Jussiaea Repens* (L) in alloxan induced male rats.** 2<sup>nd</sup> Regional Science and Technology Congress,2017 Organized by The University of Burdwan and Department of Higher Education, Science and Technology and Biotechnology (DHESTBT),Government Of West Bengal on November 16-17, **2017**.
- **Black Tea (*Camellia sinensis* ) Extract : A Possible Therapy For Endosulfan Induced Female Reproductive Changes And Early Bone Loss In Female Rats.** XXVII th Annual Conference of the Physiological Society of India (PSI) and VIth C ongress of the Federation of Indian Physiological Societies (FIPS) (FIPSPHYSICON-2015) on Translational Physiology for health promotion held on 18<sup>th</sup>-20<sup>th</sup> December, **2015**.

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- **An evation of uteroprotective potentiality of oil extract of garlic (*Allium sativum* Linn) on female hypogonadal rat** .The 100<sup>th</sup> Indian Science Congress (Medical Science division) held at University of Calcutta from January 3 to 7, **2013**.
- **Preliminary screening of skeletal health and menopause associated gynaecological & clinical endocrinological disorders in community dwelling perimenopausal women in and around Kolkata**. International Conference on Integrative Physiology : Modern Perspective and Platinum Jubilee Celebration of the Physiological Society of india,12<sup>th</sup> November to 14<sup>th</sup> November, **2009**.
- **Role of oil extract of garlic on intestinal transference of calcium and its possible correlation with preservation of skeletal health in ovariectomized rat** . XIX<sup>th</sup> Annual Conference of Physiological Society of India at Manav Rachna Educational Institutions at Faridabad Institute of Technology (FIT),India on 6<sup>th</sup> to 8<sup>th</sup> December,**2007**.
- **Diallyl Disulshide (DADS) isolated from garlic could ameliorate ovariectomy induced active bone remodeling in rat**. XXVIII Annual Conference of Physiological Society of India held at Department of Physiology, Presidency College, Kolkata, December- 8-10, **2006**.
- **Prevention of bone loss by oil extractof garlic in ovariectomized rat model of osteoporosis** .XV<sup>th</sup> Annual Conference of Physiological Society of India held at Bijapur, Karnataka, December 4-6, 2003. XXVI Annual Conference of India Association of Biomedical Scientists, held at Science City, Kolkata, December- 25-27, **2005** .
- **Comparative therapeutic analysis of Lovastatin and DADS on remodeling activities in bone microenvironment** . XXI<sup>th</sup> Annual Conference, Society of Toxicology, India, held at I.C.M.R. Eastern Regional Centre (ROHC), Salt Lake City, Calcutta, December. 3 – 5, **2002**.

**14.Awards** Prof. Sacchidananda Banerjee Memorial Research Prize by Physiological Society of India in the year 2009 for best published paper,

**15.Other notable activities:**

**16.Members Of Society:** Life Member of Indian Association of Biomedical Scientists

### **A) Participation in Seminars/Symposia/Conferences/Workshops:**

International Vision Zero Conference organized byBharat Chamber of Commerce in partnership with DGUV,BG BAU,Indo-German Focal Point and International Social Security on 4<sup>th</sup> and 5<sup>th</sup> Novemver,2022 . and presented paper on **Nutritional Status and Health Outcomes of Women Employers in Unorganized sector of Hooghy District,West Bengal**.

National conference on occupational health and safety towards a healthy and safe workplace organized by Indian Chamber of Commerce (ICC) on 21<sup>st</sup> June, 2019 and presented paper on **Evaluation of nutritional status and cardiorespiratory fitness of fishermen residing in coastal regions of Puri district ,Orissa..**

National Workshop on **Clinical Research and Clinical Database Management** organized by Bioinformatics Infrastructure Facility Presidency College, Kolkata in Collaboration with Institute of computational Biology,Bangalore on 31<sup>st</sup> January to 2 nd February,2008.

Workshop on **POLYMERASE CHAIN REACTION** in Medical and Biological Sciences organized by U.S.I.C. in collaboration with The Department of Biophysics, Molecular Biology and Genetics, University of Calcutta , September 11–13, 2002.

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### **17. Participation in OP/RC:**

UGC –HRDC sponsored online Refresher Course in Teacher Education from 21<sup>st</sup> August 2021 to 04 September,2021 organized by Human Resource Development Centre (HRDC), Aligarh Muslim University.

UGC –Sponsored Interdisciplinary Refresher Course on Hazard Management and Disaster Preparedness from November 05,2019 to November 19,2019 organized by Human Resource Development Centre (HRDC),University of Calcutta.

UGC-sponsored Special Summer School on “Science and Technology : Biomedical,Engineering and Environmental Issues” from 12<sup>th</sup> June to 2<sup>nd</sup> July,2014 organized by UGC-Academic Staff College,University of Calcutta.

UGC-sponsored Orientation Program from 3<sup>rd</sup> September 2012 to 29<sup>th</sup> September 2012 organized by UGC-Academic Staff College,University of Calcutta.